

**Appendix A – Supporting Material for Lighting Depth**

## Appendix A-1 – Light Loss Factor Calculations

Fixtures P1, P1E		
<b>Nonrecoverable</b>		
Luminaire ambient temperature	<u>1</u>	
Voltage to luminaire	<u>1</u>	
Ballast factor	<u>1</u>	
Luminaire surface depreciation	<u>1</u>	
<b>Recoverable</b>		
Lamp lumen depreciation (LLD)	<u>0.7</u>	LED
Lamp burnouts factor (LBO)	<u>1</u>	
Luminaire dirt depreciation (LDD)	<u>0.91</u>	Clean, Other, General Diffuse: W 24 month cleaning interval
<b>LLF = <u>0.637</u></b>		

Fixtures P2		
<b>Nonrecoverable</b>		
Luminaire ambient temperature	<u>1</u>	
Voltage to luminaire	<u>1</u>	
Ballast factor	<u>1</u>	
Luminaire surface depreciation	<u>1</u>	
<b>Recoverable</b>		
Lamp lumen depreciation (LLD)	<u>0.7</u>	LED
Lamp burnouts factor (LBO)	<u>1</u>	
Luminaire dirt depreciation (LDD)	<u>0.91</u>	Clean, Other, Direct: W 24 month cleaning interval
<b>LLF = <u>0.637</u></b>		

Fixtures P3		
<b>Nonrecoverable</b>		
Luminaire ambient temperature	<u>1</u>	
Voltage to luminaire	<u>1</u>	
Ballast factor	<u>1</u>	
Luminaire surface depreciation	<u>1</u>	
<b>Recoverable</b>		
Lamp lumen depreciation (LLD)	<u>0.7</u>	LED
Lamp burnouts factor (LBO)	<u>1</u>	
Luminaire dirt depreciation (LDD)	<u>0.85</u>	Clean, Other, Semi Indirect: X 24 month cleaning interval
<b>LLF = <u>0.595</u></b>		

Fixtures S1E		
<b>Nonrecoverable</b>		
Luminaire ambient temperature	<u>1</u>	
Voltage to luminaire	<u>1</u>	
Ballast factor	<u>1</u>	
Luminaire surface depreciation	<u>1</u>	
<b>Recoverable</b>		
Lamp lumen depreciation (LLD)	<u>0.7</u>	LED
Lamp burnouts factor (LBO)	<u>1</u>	
Luminaire dirt depreciation (LDD)	<u>0.85</u>	Clean, Other, Indirect: X 24 month cleaning interval
<b>LLF = <u>0.595</u></b>		

Fixtures R1, R2, R3, R4, R5, R6, R7, R8, R9		
<b>Nonrecoverable</b>		
Luminaire ambient temperature	<u>1</u>	
Voltage to luminaire	<u>1</u>	
Ballast factor	<u>1</u>	
Luminaire surface depreciation	<u>1</u>	
<b>Recoverable</b>		
Lamp lumen depreciation (LLD)	<u>0.7</u>	LED
Lamp burnouts factor (LBO)	<u>1</u>	
Luminaire dirt depreciation (LDD)	<u>0.91</u>	Clean, Open/Unventilated, Direct: W 24 month cleaning interval
<b>LLF = <u>0.637</u></b>		

Fixture W1		
<b>Nonrecoverable</b>		
Luminaire ambient temperature	<u>1</u>	
Voltage to luminaire	<u>1</u>	
Ballast factor	<u>1</u>	
Luminaire surface depreciation	<u>1</u>	
<b>Recoverable</b>		
Lamp lumen depreciation (LLD)	<u>0.7</u>	LED
Lamp burnouts factor (LBO)	<u>1</u>	
Luminaire dirt depreciation (LDD)	<u>0.85</u>	Clean, Other, Indirect: X 24 month cleaning interval
<b>LLF = <u>0.595</u></b>		

## Appendix A-2 – Lighting Power Density Calculations

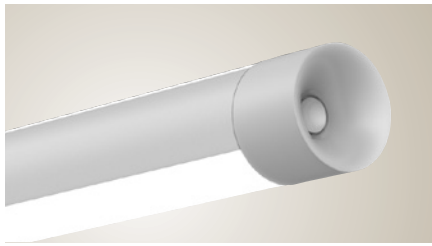
Space	Fixture	Quantity	Lamps per fixture	Watts per lamp	Watts per fixture	Total watts	Space Type	Allowed Watts
Main Plaza						307	Lighting Zone 2	976
	X1	8	N/A	N/A	27	216		
	X2	22	N/A	N/A	4.14	91		

Space	Fixture	Quantity	Watts per fixture	Total watts	Room Area	LPD (W/SF)	Space Type	Allowed LPD	Allowed Watts
Main Lobby 1000				1077	3300	0.33	Lobby, all others	0.9	2970
	R3	13	22.4	291.2					
	R4	2	14.1	28.2					
	R7	3	62	186					
	R8	6	42	252					
	R9	6	42	252					
	W1	3	22.6	67.8					

Space	Fixture	Quantity	Watts per fixture	Total watts	Room Area	LPD (W/SF)	Space Type	Allowed LPD	Allowed Watts
Open Office 2520				1140	1600	0.71	Open Office	0.98	1568
	P1	22	40	880					
	P2	10	20	200					
	P3	1	60	60					

Space	Fixture	Quantity	Watts per fixture	Total watts	Room Area	LPD (W/SF)	Space Type	Allowed LPD	Allowed Watts
Ceremonial Courtroom 4100				1905	2900	0.66	Courtroom	1.72	4988
	R1	5	22.4	112					
	R2	24	14.1	338.4					
	R4	13	14.1	183.3					
	R10	3	43.6	130.8					
	R11	4	31.5	126					
	S1	16	63.4	1014					

**Appendix A-3 – Luminaire Specification Sheets**



## Round 4 LED Indirect/Direct

Type: P1

Project:

### SPECIFICATIONS

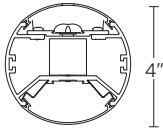
Suspended — 4" Round

RD4M4

RD4M4 W20/20 8FT R8 277 EZB SCT LP835 F1/ 24 C110

### DIMENSIONS

#### RD4M4



#### Lumen Packages:

Specify by Lamp Wattage	W20/20	W20/40	W40/20	W40/40
Indirect	Low	Low	High	High
Direct	Low	High	Low	High
Total Delivered Lumens*	3100	4550	4550	6000
Distribution Percentage <sup>UP</sup> / <sub>DOWN</sub>	50/50	30/70	70/30	50/50
Total Watts*	40	60	60	80

Low lumen package = 1550 delivered lumens\*, 20W  
High lumen package = 3000 delivered lumens\*, 40W  
\* nominal per 4'

### SPECIFICATIONS

#### Construction

Extruded aluminum housing has diameter of 4". Die-cast aluminum end caps mechanically attach with no exposed fasteners.

#### Source

Four LED lumen packages (see chart above). Three available color temperature options (3000K, 3500K and 4000K). All within 2.5 MacAdam ellipses.

#### Optics

Optical system consists of injection-molded primary optics, co-extruded acrylic lenses and metal reflectors. Lenses connect end to end to form a continuous line of light.

#### Dimming

Dimming down to black standard with eldoLED driver. Dual circuit (DCT) option for independent indirect and direct dimming.

#### Finish

Standard finish for housing and end caps is painted aluminum or gloss white. Consult factory for custom colors.

#### Controls

Optional nLight-embedded controls allow for constant lumen management (N80) and facilitate simple "plug-and-play" networking and control via CAT-5e cable.

#### Electrical

eldoLED light engine consists of modular LED boards and 0-10V dimming driver that dims to black rated for 50,000 hours (L<sub>80</sub>) at 25° C ambient temperature. Driver input wattage is 40W for 3100 delivered-lumen package, 60W for 4550 delivered-lumen package and 80W for 6000 delivered-lumen package per 4' section.

Specify 120V or 277V. Pre-wired with 16AWG fixture wire. For special circuiting or wire gauge, consult factory. Plug-in electrical connectors included.

#### Environment

Damp location label option. Ambient operating temperature 0° C to 25° C.

#### Fixture Length

4' and 8' lengths in a single section for exact suspension spacing of 4' and 8'. For total luminaire length, add 3" for each end cap. Using internal joiners, 4' and 8' sections can be joined to form longer rows.

#### Validation

CSA/CUS listed. FCC part 15 certified. LM-79 tested. Lighting Facts partner.

#### Warranty

Five-year limited warranty coverage includes luminaire construction, LED light engine, driver and nLight control device. Terms and conditions apply.

#### Packaging

100% post-consumer recycled cardboard box. Biodegradable foam inserts and protective luminaire bag. Recycled kraft paper tape.

### CATALOG NUMBER

Example: RD4M4 W40/20 48FT R8 120 EZB SCT LP835 F1/24 C032 PDT1

RD4M4	W20/20	8FT	R8	277	EZB			▶▶▶
<b>Fixture</b>	<b>Lamp Wattage</b>	<b>Fixture Row Length</b>	<b>Maximum Section Length</b>	<b>Voltage</b>	<b>Driver Type</b>	<b># of Emergency Modules</b>	<b>Emergency Type<sup>1</sup></b>	
RD4M4	<b>W20/20</b> 1550 nominal delivered-lumens up 1550 nominal delivered-lumens down <b>W20/40</b> 1550 nominal delivered-lumens up 3000 nominal delivered-lumens down <b>W40/20</b> 3000 nominal delivered-lumens up 1550 nominal delivered-lumens down <b>W40/40</b> 3000 nominal delivered-lumens up 3000 nominal delivered-lumens down	X FT (4' increments)	<b>R4</b> 4' section(s) <b>R8</b> 8' section(s)	120 277	EZB eldoLED dims to black	<b>(Blank)</b> None <b>1SE</b> 1 section <b>2SE</b> 2 sections <b>XSE</b> X sections	<b>(Blank)</b> None <b>EC</b> Emergency circuit	
SCT	LP835	F1/	24	C110				
<b>Switching</b>	<b>LED Color Temperature</b>	<b>Mounting Type /</b>	<b>Overall Suspension<sup>2</sup></b>	<b>Finish</b>	<b>Options</b>			
SCT Single circuit DCT Dual circuit	<b>LP830</b> 3000K 80+ CRI 17-20+ R9 <b>LP835</b> 3500K 80+ CRI 17-20+ R9 <b>LP840</b> 4000K 80+ CRI 17-20+ R9	<b>F1/</b> T-bar ceiling (universal mounting bracket) <b>F1A/</b> T-bar ceiling (UMB with integrated J-box) <b>F2/</b> Hard ceiling (horizontal J-box)	<b>24</b> 24" <b>36</b> 36" <b>48</b> 48" <b>72</b> 72" <b>XX</b> XX"	<b>C032</b> White white (high gloss) <b>C110</b> Painted aluminum <b>C099</b> Custom finish	<b>CFG</b> Configuration, consult factory for drawings <b>CP</b> Chicago plenum (available with F1A only) <b>DL</b> Damp location label <b>GLR</b> Fusing (fast blow) <b>GMF</b> Fusing (slow blow) <b>LM</b> 80% lumen management without networking <b>MCS</b> Matching feed canopy at support <b>N80</b> nLight nLO with 80% lumen management per row/zone <b>N100</b> nLight nLO without lumen management per row/zone <b>OJB</b> Offset junction box <b>SLP</b> Sloped ceiling adapter (for 10-45°; must be specified along with F2 and OJB options) <b>XXXX</b> Integrated sensor; choose options and obtain code on page 2			

#### Notes:

- 1 Emergency type is installed in last 4' of luminaire sections. Separate feed required  
2 Adjustable cable gripper comes standard

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# Round 4 LED

## Indirect/Direct

Type: P1

Project:

Suspended — 4" Round

RD4M4

### INTEGRATED nLIGHT MICRO SENSOR

Determine the appropriate sensor type, network type and sensor power source for your application. Enter the code in the Options section of the Catalog Number.

EXAMPLE: PDT1

Sensor Type (choose one)	
<b>ADC</b> nLight model nES ADCX	<b>Daylight Dimming</b> Specify 0-10V dimming ballast No occupancy sensing
<b>PDT</b> nLight model nES PDT7 ADCX	<b>Daylight Dimming and/or Occupancy Detection</b> Specify 0-10v dimming ballast for daylight dimming Specify fixed-output ballast for occupancy detection only (daylight dimming disabled)

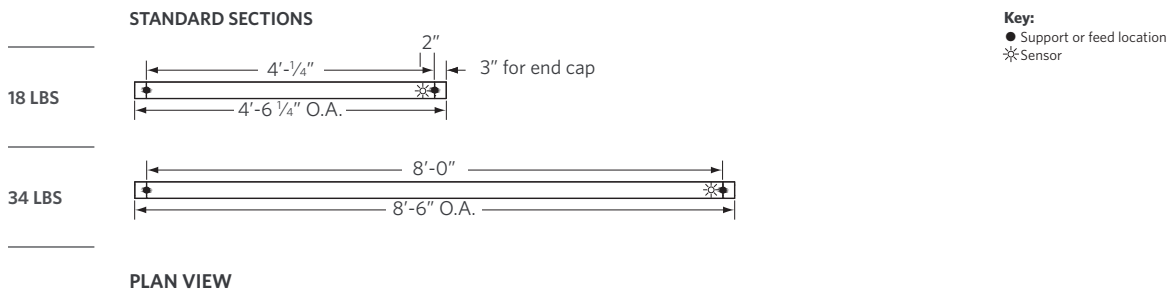
Network Type & Sensor Power Source (choose one)	
<b>1*</b>	<b>nLight-Enabled (Network-Ready) with Luminaire-Integrated Power Pack</b> 10' Cat-5e cable and splitter provided
<b>2</b>	<b>Standalone Operation (No Networking) with Luminaire Integrated Power Pack</b> No Cat-5e cable provided
<b>3*</b>	<b>nLight-Enabled (Network-Ready) with Remote nLight Power Pack or nPanel</b> 10' Cat-5e cable and splitter provided Order required remote nLight Power Pack or nPanel separately through nLight (Acuity Brands Controls)

For more information about the Integrated nLight Micro Sensor, its capabilities and options, download the PDF guide at: [PeerlessLighting.com/nLight-Sensor-Guide](http://PeerlessLighting.com/nLight-Sensor-Guide)

\*nLight-Enabled (network-ready) options include one RJ-45 connector on the luminaire, 10 feet of Cat-5e cable to control the entire luminaire row (depending on wattage/voltage limitations), and splitter. The Cat-5e cable drop is located in the same section as the sensor. For multiple zones, please contact techsupport@peerlesslighting.com.

### WEIGHTS & SUPPORT SPACING

Suspension spacing equals section length.

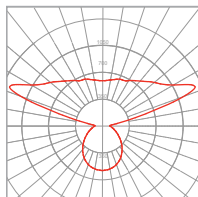


### CONFIGURATIONS



Round 4 can be configured with special mitered sections to provide seamless corner illumination where two luminaires join together. Reference [Pattern Connector Guide](#) for additional details.

### PHOTOMETRICS Actual performance may differ as a result of end-user environment and application.



**W40/20 LP835**  
75 lumens per watt  
4493 delivered lumens  
66% up / 34% down

# Round 4 LED

## Indirect/Direct

Type: P1

Project:

Suspended — 4" Round

RD4M4

LIGHTING FACTS LABELS

RD4M4 3105L 3500K

**lighting facts**  
A Program of the U.S. DOE

Light Output (Lumens)	3105
Watts	37.37
Lumens per Watt (Efficacy)	83

**Color Accuracy**  
Color Rendering Index (CRI) 83

**Light Color**  
Correlated Color Temperature (CCT) 3373 (Bright White)

2700K 3000K 4500K 6500K

All results are according to IESNA LM-79-2008: *Approved Method for the Electrical and Photometric Testing of Solid-State Lighting*. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit [www.lightingfacts.com](http://www.lightingfacts.com) for the *Label Reference Guide*.

Registration Number: NJSM-A1VZMG (8/5/2013)  
Model Number: RD4M4 W20/20 14 120 E21 SCT LP835  
Type: Other

RD4M4 4493L 3500K

**lighting facts**  
A Program of the U.S. DOE

Light Output (Lumens)	4493
Watts	59.56
Lumens per Watt (Efficacy)	75

**Color Accuracy**  
Color Rendering Index (CRI) 83

**Light Color**  
Correlated Color Temperature (CCT) 3392 (Bright White)

2700K 3000K 4500K 6500K

All results are according to IESNA LM-79-2008: *Approved Method for the Electrical and Photometric Testing of Solid-State Lighting*. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit [www.lightingfacts.com](http://www.lightingfacts.com) for the *Label Reference Guide*.

Registration Number: NJSM-ZSPOH3 (8/5/2013)  
Model Number: RD4M4 W40/20 14 120 E21 SCT LP835  
Type: Other

RD4M4 5937L 3500K

**lighting facts**  
A Program of the U.S. DOE

Light Output (Lumens)	5937
Watts	81.48
Lumens per Watt (Efficacy)	72

**Color Accuracy**  
Color Rendering Index (CRI) 83

**Light Color**  
Correlated Color Temperature (CCT) 3406 (Bright White)

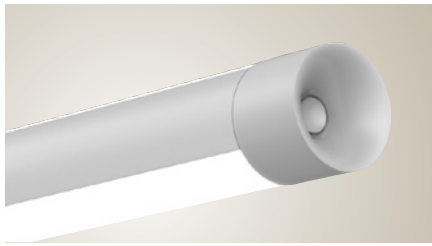
2700K 3000K 4500K 6500K

All results are according to IESNA LM-79-2008: *Approved Method for the Electrical and Photometric Testing of Solid-State Lighting*. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit [www.lightingfacts.com](http://www.lightingfacts.com) for the *Label Reference Guide*.

Registration Number: NJSM-EF2EF8 (8/5/2013)  
Model Number: RD4M4 W40/40 14 120 E21 SCT LP835  
Type: Other





# Round 4 LED Indirect/Direct

Type: P1E

Project:

## SPECIFICATIONS

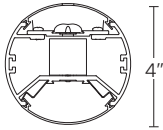
Suspended — 4" Round

RD4M4

RD4M4 W20/20 8FT R8 277 EZB 1 EC SCT LP835 F1/ 24 C110

### DIMENSIONS

#### RD4M4



#### Lumen Packages:

Specify by Lamp Wattage	W20/20	W20/40	W40/20	W40/40
Indirect	Low	Low	High	High
Direct	Low	High	Low	High
Total Delivered Lumens*	3100	4550	4550	6000
Distribution Percentage <sup>UP</sup> / <sub>DOWN</sub>	50/50	30/70	70/30	50/50
Total Watts*	40	60	60	80

Low lumen package = 1550 delivered lumens\*, 20W  
High lumen package = 3000 delivered lumens\*, 40W  
\* nominal per 4'

### SPECIFICATIONS

#### Construction

Extruded aluminum housing has diameter of 4". Die-cast aluminum end caps mechanically attach with no exposed fasteners.

#### Source

Four LED lumen packages (see chart above). Three available color temperature options (3000K, 3500K and 4000K). All within 2.5 MacAdam ellipses.

#### Optics

Optical system consists of injection-molded primary optics, co-extruded acrylic lenses and metal reflectors. Lenses connect end to end to form a continuous line of light.

#### Dimming

Dimming down to black standard with eldoLED driver. Dual circuit (DCT) option for independent indirect and direct dimming.

#### Finish

Standard finish for housing and end caps is painted aluminum or gloss white. Consult factory for custom colors.

#### Controls

Optional nLight-embedded controls allow for constant lumen management (N80) and facilitate simple "plug-and-play" networking and control via CAT-5e cable.

#### Electrical

eldoLED light engine consists of modular LED boards and 0-10V dimming driver that dims to black rated for 50,000 hours (L80) at 25° C ambient temperature. Driver input wattage is 40W for 3100 delivered-lumen package, 60W for 4550 delivered-lumen package and 80W for 6000 delivered-lumen package per 4' section.

Specify 120V or 277V. Pre-wired with 16AWG fixture wire. For special circuiting or wire gauge, consult factory. Plug-in electrical connectors included.

#### Environment

Damp location label option. Ambient operating temperature 0° C to 25° C.

#### Fixture Length

4' and 8' lengths in a single section for exact suspension spacing of 4' and 8'. For total luminaire length, add 3" for each end cap. Using internal joiners, 4' and 8' sections can be joined to form longer rows.

#### Validation

CSA/CUS listed. FCC part 15 certified. LM-79 tested. Lighting Facts partner.

#### Warranty

Five-year limited warranty coverage includes luminaire construction, LED light engine, driver and nLight control device. Terms and conditions apply.

#### Packaging

100% post-consumer recycled cardboard box. Biodegradable foam inserts and protective luminaire bag. Recycled kraft paper tape.

### CATALOG NUMBER

Example: RD4M4 W40/20 48FT R8 120 EZB SCT LP835 F1/24 C032 PDT1

RD4M4	W20/20	8FT	R8	277	EZB	1	EC	▶▶▶
<b>Fixture</b>	<b>Lamp Wattage</b>	<b>Fixture Row Length</b>	<b>Maximum Section Length</b>	<b>Voltage</b>	<b>Driver Type</b>	<b># of Emergency Modules</b>	<b>Emergency Type<sup>1</sup></b>	
RD4M4	<b>W20/20</b> 1550 nominal delivered-lumens up 1550 nominal delivered-lumens down <b>W20/40</b> 1550 nominal delivered-lumens up 3000 nominal delivered-lumens down <b>W40/20</b> 3000 nominal delivered-lumens up 1550 nominal delivered-lumens down <b>W40/40</b> 3000 nominal delivered-lumens up 3000 nominal delivered-lumens down	X FT (4' increments)	<b>R4</b> 4' section(s) <b>R8</b> 8' section(s)	<b>120</b> <b>277</b>	<b>EZB</b> eldoLED dims to black	<b>(Blank)</b> None <b>1SE</b> 1 section <b>2SE</b> 2 sections <b>XSE</b> X sections	<b>(Blank)</b> None <b>EC</b> Emergency circuit	
▶▶	SCT	LP835	F1/	24	C110			
<b>Switching</b>	<b>LED Color Temperature</b>	<b>Mounting Type</b> /	<b>Overall Suspension<sup>2</sup></b>	<b>Finish</b>	<b>Options</b>			
<b>SCT</b> Single circuit <b>DCT</b> Dual circuit	<b>LP830</b> 3000K 80+ CRI 17-20+ R9 <b>LP835</b> 3500K 80+ CRI 17-20+ R9 <b>LP840</b> 4000K 80+ CRI 17-20+ R9	<b>F1/</b> T-bar ceiling (universal mounting bracket) <b>F1A/</b> T-bar ceiling (UMB with integrated J-box) <b>F2/</b> Hard ceiling (horizontal J-box)	<b>24</b> 24" <b>36</b> 36" <b>48</b> 48" <b>72</b> 72" <b>XX</b> XX" <i>Overall suspension is measured from ceiling to bottom of fixture</i>	<b>C032</b> White white (high gloss) <b>C110</b> Painted aluminum <b>C099</b> Custom finish	<b>CFG</b> Configuration, consult factory for drawings <b>CP</b> Chicago plenum (available with F1A only) <b>DL</b> Damp location label <b>GLR</b> Fusing (fast blow) <b>GMF</b> Fusing (slow blow) <b>LM</b> 80% lumen management without networking <b>MCS</b> Matching feed canopy at support <b>N80</b> nLight nLO with 80% lumen management per row/zone <b>N100</b> nLight nLO without lumen management per row/zone <b>OJB</b> Offset junction box <b>SLP</b> Sloped ceiling adapter (for 10-45°; must be specified along with F2 and OJB options) <b>XXXX</b> Integrated sensor; choose options and obtain code on page 2			

**Notes:**

- 1 Emergency type is installed in last 4' of luminaire sections. Separate feed required
- 2 Adjustable cable gripper comes standard

# Round 4 LED

## Indirect/Direct

Type: P1E

Project:

Suspended — 4" Round

RD4M4

### INTEGRATED nLIGHT MICRO SENSOR

Determine the appropriate sensor type, network type and sensor power source for your application. Enter the code in the Options section of the Catalog Number.

EXAMPLE: PDT1

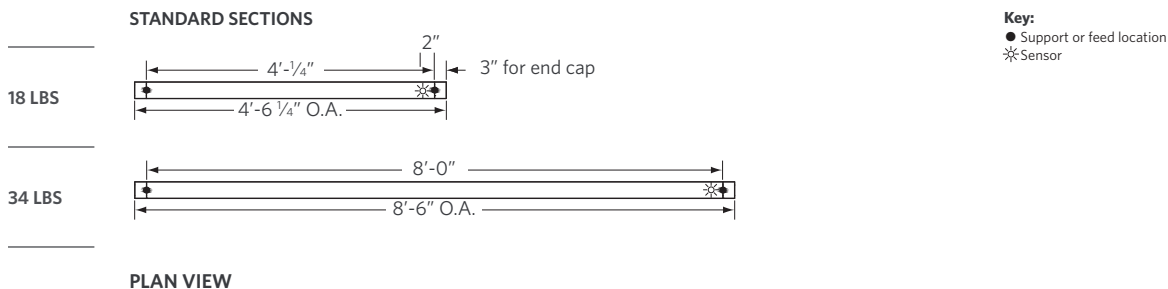
Sensor Type (choose one)	
<b>ADC</b> nLight model nES ADCX	<b>Daylight Dimming</b> Specify 0-10V dimming ballast No occupancy sensing
<b>PDT</b> nLight model nES PDT7 ADCX	<b>Daylight Dimming and/or Occupancy Detection</b> Specify 0-10v dimming ballast for daylight dimming Specify fixed-output ballast for occupancy detection only (daylight dimming disabled)

Network Type & Sensor Power Source (choose one)	
<b>1*</b>	<b>nLight-Enabled (Network-Ready) with Luminaire-Integrated Power Pack</b> 10' Cat-5e cable and splitter provided
<b>2</b>	<b>Standalone Operation (No Networking) with Luminaire Integrated Power Pack</b> No Cat-5e cable provided
<b>3*</b>	<b>nLight-Enabled (Network-Ready) with Remote nLight Power Pack or nPanel</b> 10' Cat-5e cable and splitter provided Order required remote nLight Power Pack or nPanel separately through nLight (Acuity Brands Controls)

For more information about the Integrated nLight Micro Sensor, its capabilities and options, download the PDF guide at: [PeerlessLighting.com/nLight-Sensor-Guide](http://PeerlessLighting.com/nLight-Sensor-Guide)  
\*nLight-Enabled (network-ready) options include one RJ-45 connector on the luminaire, 10 feet of Cat-5e cable to control the entire luminaire row (depending on wattage/voltage limitations), and splitter. The Cat-5e cable drop is located in the same section as the sensor. For multiple zones, please contact techsupport@peerlesslighting.com.

### WEIGHTS & SUPPORT SPACING

Suspension spacing equals section length.

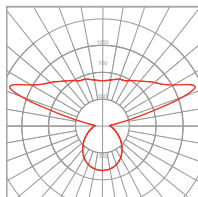


### CONFIGURATIONS



Round 4 can be configured with special mitered sections to provide seamless corner illumination where two luminaires join together. Reference [Pattern Connector Guide](#) for additional details.

### PHOTOMETRICS Actual performance may differ as a result of end-user environment and application.



**W40/20 LP835**  
75 lumens per watt  
4493 delivered lumens  
66% up / 34% down

# Round 4 LED

## Indirect/Direct

Type: P1E

Project:

Suspended — 4" Round

RD4M4

LIGHTING FACTS LABELS

RD4M4 3105L 3500K

Light Output (Lumens)	3105
Watts	37.37
Lumens per Watt (Efficacy)	83
Color Accuracy Color Rendering Index (CRI)	83
Light Color Correlated Color Temperature (CCT)	3373 (Bright White)

Warm White 2700K 3000K Bright White 4500K Daylight 6500K

All results are according to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit [www.lightingfacts.com](http://www.lightingfacts.com) for the Label Reference Guide.

Registration Number: NJSM-A1VZMG (8/5/2013)  
Model Number: RD4M4 W20/20 14 120 E21 SCT LP835  
Type: Other

RD4M4 4493L 3500K

Light Output (Lumens)	4493
Watts	59.56
Lumens per Watt (Efficacy)	75
Color Accuracy Color Rendering Index (CRI)	83
Light Color Correlated Color Temperature (CCT)	3392 (Bright White)

Warm White 2700K 3000K Bright White 4500K Daylight 6500K

All results are according to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit [www.lightingfacts.com](http://www.lightingfacts.com) for the Label Reference Guide.

Registration Number: NJSM-ZSPOH3 (8/5/2013)  
Model Number: RD4M4 W40/20 14 120 E21 SCT LP835  
Type: Other

RD4M4 5937L 3500K

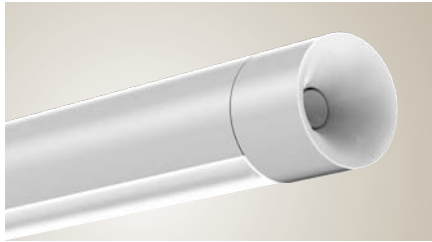
Light Output (Lumens)	5937
Watts	81.48
Lumens per Watt (Efficacy)	72
Color Accuracy Color Rendering Index (CRI)	83
Light Color Correlated Color Temperature (CCT)	3406 (Bright White)

Warm White 2700K 3000K Bright White 4500K Daylight 6500K

All results are according to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit [www.lightingfacts.com](http://www.lightingfacts.com) for the Label Reference Guide.

Registration Number: NJSM-EF2EF8 (8/5/2013)  
Model Number: RD4M4 W40/40 14 120 E21 SCT LP835  
Type: Other



## Round 4 LED Wall-Wash

Type: P2

Project:

### SPECIFICATIONS

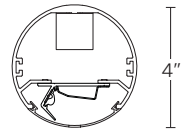
Suspended — 4" Round

RD4MW

RD4MW W20 40FT R8 277 EZB SCT LP835 F1/ 24 C110

### DIMENSIONS

#### RD4MW



#### Two LED Lumen Packages:

Specify by Lamp Wattage	W20	W40
Indirect	Low	High
Total Delivered Lumens*	1400	2600
Total Watts*	20	40

\* nominal per 4'

### SPECIFICATIONS

#### Construction

Extruded aluminum housing has diameter of 4". Die-cast aluminum end caps mechanically attach with no exposed fasteners.

#### Source

Two LED lumen packages (High and Low). Three available color temperature options (3000K, 3500K and 4000K). All within 2.5 MacAdam ellipses.

#### Optics

Optical system consists of injection-molded primary optics, co-extruded acrylic lenses and metal reflectors. Lenses connect end to end to form a continuous line of light.

#### Dimming

Dimming down to black standard with eldoLED driver.

#### Finish

Standard finish for housing and end caps is painted aluminum or gloss white. Consult factory for custom colors.

#### Controls

Optional nLight-embedded controls allow for constant lumen management (N80) and facilitate simple "plug-and-play" networking and control via CAT-5e cable.

#### Electrical

eldoLED light engine consists of modular LED boards and 0-10V dimming driver that dims to black rated for 50,000 hours (L80) at 25° C ambient temperature. Driver input wattage is 20W for 1400 delivered-lumen package and 40W for 2000 delivered-lumen package per 4' section.

Specify 120V or 277V. Pre-wired with 16AWG fixture wire. For special circuiting or wire gauge, consult factory. Plug-in electrical connectors included.

#### Environment

Damp location label option. Ambient operating temperature 0° C to 25° C.

#### Fixture Length

4' and 8' lengths in a single section for exact suspension spacing of 4' and 8'. For total luminaire length, add 3" for each end cap. Using internal joiners, 4' and 8' sections can be joined to form longer rows.

#### Validation

CSA/CUS listed. FCC part 15 certified. LM-79 tested. Lighting Facts partner.

#### Warranty

Five-year limited warranty coverage includes luminaire construction, LED light engine, driver and nLight control device. Terms and conditions apply.

#### Packaging

100% post-consumer recycled cardboard box. Biodegradable foam inserts and protective luminaire bag. Recycled kraft paper tape.

### CATALOG NUMBER

Example: RD4MW W40 48FT R8 277 EZB SCT LP835 F1/24 C032 N80

RD4MW	W20	40FT	R8	277	EZB			▶▶▶
<b>Fixture</b>	<b>Lamp Wattage</b>	<b>Fixture Row Length</b>	<b>Maximum Section Length</b>	<b>Voltage</b>	<b>Driver Type</b>	<b># of Emergency Modules</b>	<b>Emergency Type<sup>1</sup></b>	
RD4MW	W20 1400 nominal delivered-lumens W40 2600 nominal delivered-lumens	X FT (4' increments)	R4 4' section(s) R8 8' section(s)	120 277	EZB eldoLED dims to black	(Blank) None 1SE 1 section 2SE 2 sections XSE X sections	(Blank) None EC Emergency circuit	
▶▶ SCT	LP835	F1/	24	C110				
<b>Switching</b>	<b>LED Color Temperature</b>	<b>Mounting Type</b>	<b>Overall Suspension<sup>2</sup></b>	<b>Finish</b>	<b>Options</b>			
SCT Single circuit	LP830 3000K 80+ CRI 17-20+ R9 LP835 3500K 80+ CRI 17-20+ R9 LP840 4000K 80+ CRI 17-20+ R9	F1/ T-bar ceiling (universal mounting bracket) F1A/ T-bar ceiling (UMB with integrated J-box) F2/ Hard ceiling (horizontal J-box)	24 24" 36 36" 48 48" 72 72" XX XX" <i>Overall suspension is measured from ceiling to bottom of fixture</i>	C032 White white (high gloss) C110 Painted aluminum C099 Custom finish	CP Chicago plenum (available with F1A only) DL Damp location label GLR Fusing (fast blow) GMF Fusing (slow blow) LM 80% lumen management without networking MCS Matching feed canopy at support N80 nLight nIO with 80% lumen management per row/zone N100 nLight nIO without lumen management per row/zone OJB Offset junction box SLP Sloped ceiling adapter (for 10-45°; must be specified along with F2 and OJB options)			

#### Notes:

- Emergency type is installed in last 4' of luminaire sections. Separate feed required
- Adjustable cable gripper comes standard

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# Round 4 LED Wall-Wash

Type: P2

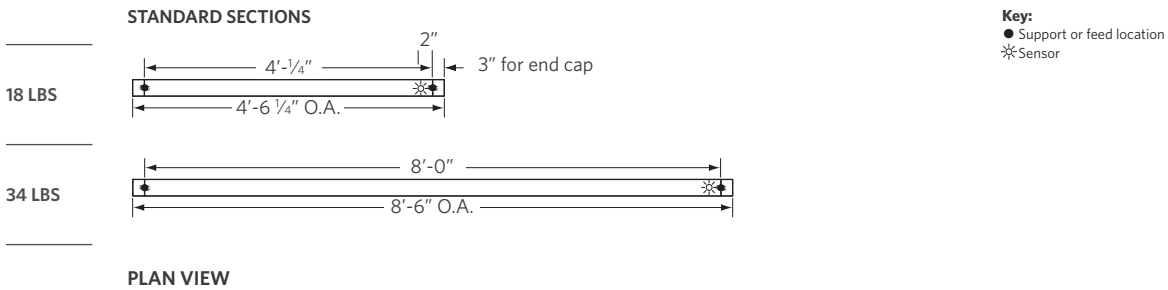
Project:

Suspended — 4" Round

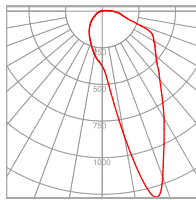
RD4MW

## WEIGHTS & SUPPORT SPACING

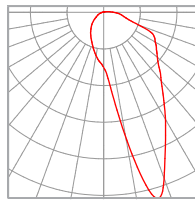
Suspension spacing equals section length.



## PHOTOMETRICS Actual performance may differ as a result of end-user environment and application.



**W20 LP835**  
68 lumens per watt  
1385 delivered lumens  
2% up / 98% down



**W40 LP835**  
63 lumens per watt  
2567 delivered lumens  
2% up / 98% down

# Round 4 LED Wall-Wash

Type: P2

Project:

Suspended — 4" Round

RD4MW

LIGHTING FACTS LABELS

RD4MW 1385L 3500K

Light Output (Lumens)	1385
Watts	20.48
Lumens per Watt (Efficacy)	67
<b>Color Accuracy</b>	
Color Rendering Index (CRI)	82
<b>Light Color</b>	
Correlated Color Temperature (CCT)	3441 (Bright White)

All results are according to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit [www.lightingfacts.com](http://www.lightingfacts.com) for the Label Reference Guide.

Registration Number: NJSM-ZGKJ1D (8/5/2013)  
 Model Number: RD4MW W20 I4 120 E21 SCT LP835  
 Type: Wall wash fixture

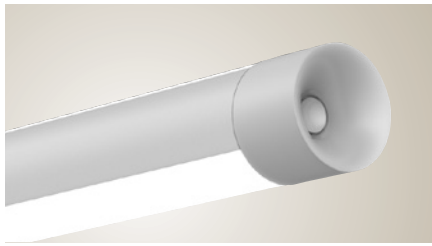
RD4MW 2569L 3500K

Light Output (Lumens)	2569
Watts	40.8
Lumens per Watt (Efficacy)	62
<b>Color Accuracy</b>	
Color Rendering Index (CRI)	82
<b>Light Color</b>	
Correlated Color Temperature (CCT)	3462 (Bright White)

All results are according to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit [www.lightingfacts.com](http://www.lightingfacts.com) for the Label Reference Guide.

Registration Number: NJSM-WGVDJ8 (8/5/2013)  
 Model Number: RD4MW W40 I4 120 E21 SCT LP835  
 Type: Wall wash fixture



## Round 4 LED Indirect/Direct

Type: P3

Project:

### SPECIFICATIONS

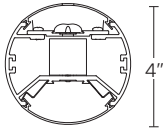
Suspended — 4" Round

RD4M4

RD4M4 W40/20 8FT R8 277 EZB SCT LP835 F1/ 24 C110

### DIMENSIONS

#### RD4M4



#### Lumen Packages:

Specify by Lamp Wattage	W20/20	W20/40	W40/20	W40/40
Indirect	Low	Low	High	High
Direct	Low	High	Low	High
Total Delivered Lumens*	3100	4550	4550	6000
Distribution Percentage <sup>UP</sup> / <sub>DOWN</sub>	50/50	30/70	70/30	50/50
Total Watts*	40	60	60	80

Low lumen package = 1550 delivered lumens\*, 20W  
High lumen package = 3000 delivered lumens\*, 40W  
\* nominal per 4'

### SPECIFICATIONS

#### Construction

Extruded aluminum housing has diameter of 4". Die-cast aluminum end caps mechanically attach with no exposed fasteners.

#### Source

Four LED lumen packages (see chart above). Three available color temperature options (3000K, 3500K and 4000K). All within 2.5 MacAdam ellipses.

#### Optics

Optical system consists of injection-molded primary optics, co-extruded acrylic lenses and metal reflectors. Lenses connect end to end to form a continuous line of light.

#### Dimming

Dimming down to black standard with eldoLED driver. Dual circuit (DCT) option for independent indirect and direct dimming.

#### Finish

Standard finish for housing and end caps is painted aluminum or gloss white. Consult factory for custom colors.

#### Controls

Optional nLight-embedded controls allow for constant lumen management (N80) and facilitate simple "plug-and-play" networking and control via CAT-5e cable.

#### Electrical

eldoLED light engine consists of modular LED boards and 0-10V dimming driver that dims to black rated for 50,000 hours (L<sub>80</sub>) at 25° C ambient temperature. Driver input wattage is 40W for 3100 delivered-lumen package, 60W for 4550 delivered-lumen package and 80W for 6000 delivered-lumen package per 4' section.

Specify 120V or 277V. Pre-wired with 16AWG fixture wire. For special circuiting or wire gauge, consult factory. Plug-in electrical connectors included.

#### Environment

Damp location label option. Ambient operating temperature 0° C to 25° C.

#### Fixture Length

4' and 8' lengths in a single section for exact suspension spacing of 4' and 8'. For total luminaire length, add 3" for each end cap. Using internal joiners, 4' and 8' sections can be joined to form longer rows.

#### Validation

CSA/CUS listed. FCC part 15 certified. LM-79 tested. Lighting Facts partner.

#### Warranty

Five-year limited warranty coverage includes luminaire construction, LED light engine, driver and nLight control device. Terms and conditions apply.

#### Packaging

100% post-consumer recycled cardboard box. Biodegradable foam inserts and protective luminaire bag. Recycled kraft paper tape.

### CATALOG NUMBER

Example: RD4M4 W40/20 48FT R8 120 EZB SCT LP835 F1/24 C032 PDT1

RD4M4	W40/20	8FT	R8	277	EZB			▶▶▶
<b>Fixture</b>	<b>Lamp Wattage</b>	<b>Fixture Row Length</b>	<b>Maximum Section Length</b>	<b>Voltage</b>	<b>Driver Type</b>	<b># of Emergency Modules</b>	<b>Emergency Type<sup>1</sup></b>	
RD4M4	<b>W20/20</b> 1550 nominal delivered-lumens up 1550 nominal delivered-lumens down <b>W20/40</b> 1550 nominal delivered-lumens up 3000 nominal delivered-lumens down <b>W40/20</b> 3000 nominal delivered-lumens up 1550 nominal delivered-lumens down <b>W40/40</b> 3000 nominal delivered-lumens up 3000 nominal delivered-lumens down	<b>X FT</b> (4' increments)	<b>R4</b> 4' section(s) <b>R8</b> 8' section(s)	<b>120</b> <b>277</b>	<b>EZB</b> eldoLED dims to black	<b>(Blank)</b> None <b>1SE</b> 1 section <b>2SE</b> 2 sections <b>XSE</b> X sections	<b>(Blank)</b> None <b>EC</b> Emergency circuit	
SCT	LP835	F1/	24	C110				
<b>Switching</b>	<b>LED Color Temperature</b>	<b>Mounting Type</b> /	<b>Overall Suspension<sup>2</sup></b>	<b>Finish</b>	<b>Options</b>			
<b>SCT</b> Single circuit <b>DCT</b> Dual circuit	<b>LP830</b> 3000K 80+ CRI 17-20+ R9 <b>LP835</b> 3500K 80+ CRI 17-20+ R9 <b>LP840</b> 4000K 80+ CRI 17-20+ R9	<b>F1/</b> T-bar ceiling (universal mounting bracket) <b>F1A/</b> T-bar ceiling (UMB with integrated J-box) <b>F2/</b> Hard ceiling (horizontal J-box)	<b>24</b> 24" <b>36</b> 36" <b>48</b> 48" <b>72</b> 72" <b>XX</b> XX" Overall suspension is measured from ceiling to bottom of fixture	<b>C032</b> White white (high gloss) <b>C110</b> Painted aluminum <b>C099</b> Custom finish	<b>CFG</b> Configuration, consult factory for drawings <b>CP</b> Chicago plenum (available with F1A only) <b>DL</b> Damp location label <b>GLR</b> Fusing (fast blow) <b>GMF</b> Fusing (slow blow) <b>LM</b> 80% lumen management without networking <b>MCS</b> Matching feed canopy at support <b>N80</b> nLight nLO with 80% lumen management per row/zone <b>N100</b> nLight nLO without lumen management per row/zone <b>OJB</b> Offset junction box <b>SLP</b> Sloped ceiling adapter (for 10-45°; must be specified along with F2 and OJB options) <b>XXXX</b> Integrated sensor; choose options and obtain code on page 2			

#### Notes:

- 1 Emergency type is installed in last 4' of luminaire sections. Separate feed required  
2 Adjustable cable gripper comes standard

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# Round 4 LED

## Indirect/Direct

Type: P3

Project:

Suspended — 4" Round

RD4M4

### INTEGRATED nLIGHT MICRO SENSOR

Determine the appropriate sensor type, network type and sensor power source for your application. Enter the code in the Options section of the Catalog Number.

EXAMPLE: PDT1

Sensor Type (choose one)	
<b>ADC</b> nLight model nES ADCX	<b>Daylight Dimming</b> Specify 0-10V dimming ballast No occupancy sensing
<b>PDT</b> nLight model nES PDT7 ADCX	<b>Daylight Dimming and/or Occupancy Detection</b> Specify 0-10v dimming ballast for daylight dimming Specify fixed-output ballast for occupancy detection only (daylight dimming disabled)

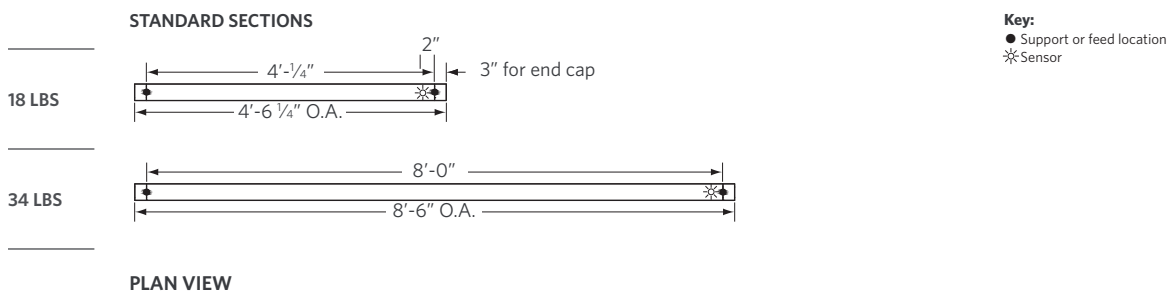
Network Type & Sensor Power Source (choose one)	
<b>1*</b>	<b>nLight-Enabled (Network-Ready) with Luminaire-Integrated Power Pack</b> 10' Cat-5e cable and splitter provided
<b>2</b>	<b>Standalone Operation (No Networking) with Luminaire Integrated Power Pack</b> No Cat-5e cable provided
<b>3*</b>	<b>nLight-Enabled (Network-Ready) with Remote nLight Power Pack or nPanel</b> 10' Cat-5e cable and splitter provided Order required remote nLight Power Pack or nPanel separately through nLight (Acuity Brands Controls)

For more information about the Integrated nLight Micro Sensor, its capabilities and options, download the PDF guide at: [PeerlessLighting.com/nLight-Sensor-Guide](http://PeerlessLighting.com/nLight-Sensor-Guide)

\*nLight-Enabled (network-ready) options include one RJ-45 connector on the luminaire, 10 feet of Cat-5e cable to control the entire luminaire row (depending on wattage/voltage limitations), and splitter. The Cat-5e cable drop is located in the same section as the sensor. For multiple zones, please contact techsupport@peerlesslighting.com.

### WEIGHTS & SUPPORT SPACING

Suspension spacing equals section length.

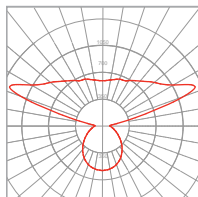


### CONFIGURATIONS



Round 4 can be configured with special mitered sections to provide seamless corner illumination where two luminaires join together. Reference [Pattern Connector Guide](#) for additional details.

### PHOTOMETRICS Actual performance may differ as a result of end-user environment and application.



**W40/20 LP835**  
75 lumens per watt  
4493 delivered lumens  
66% up / 34% down



# Round 4 LED

## Indirect/Direct

Type: P3

Project:

Suspended — 4" Round

RD4M4

LIGHTING FACTS LABELS

RD4M4 3105L 3500K

**lighting facts**  
A Program of the U.S. DOE

Light Output (Lumens)	3105
Watts	37.37
Lumens per Watt (Efficacy)	83

Color Accuracy Color Rendering Index (CRI)	83
---	----

**Light Color**  
Correlated Color Temperature (CCT) **3373 (Bright White)**

Warm White | Bright White | Daylight  
2700K | 3000K | 4500K | 6500K

All results are according to IESNA LM-79-2008: *Approved Method for the Electrical and Photometric Testing of Solid-State Lighting*. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit [www.lightingfacts.com](http://www.lightingfacts.com) for the *Label Reference Guide*.

Registration Number: NJSM-A1VZMG (8/5/2013)  
Model Number: RD4M4 W20/20 14 120 E21 SCT LP835  
Type: Other

RD4M4 4493L 3500K

**lighting facts**  
A Program of the U.S. DOE

Light Output (Lumens)	4493
Watts	59.56
Lumens per Watt (Efficacy)	75

Color Accuracy Color Rendering Index (CRI)	83
---	----

**Light Color**  
Correlated Color Temperature (CCT) **3392 (Bright White)**

Warm White | Bright White | Daylight  
2700K | 3000K | 4500K | 6500K

All results are according to IESNA LM-79-2008: *Approved Method for the Electrical and Photometric Testing of Solid-State Lighting*. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit [www.lightingfacts.com](http://www.lightingfacts.com) for the *Label Reference Guide*.

Registration Number: NJSM-ZSPOH3 (8/5/2013)  
Model Number: RD4M4 W40/20 14 120 E21 SCT LP835  
Type: Other

RD4M4 5937L 3500K

**lighting facts**  
A Program of the U.S. DOE

Light Output (Lumens)	5937
Watts	81.48
Lumens per Watt (Efficacy)	72

Color Accuracy Color Rendering Index (CRI)	83
---	----

**Light Color**  
Correlated Color Temperature (CCT) **3406 (Bright White)**

Warm White | Bright White | Daylight  
2700K | 3000K | 4500K | 6500K

All results are according to IESNA LM-79-2008: *Approved Method for the Electrical and Photometric Testing of Solid-State Lighting*. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit [www.lightingfacts.com](http://www.lightingfacts.com) for the *Label Reference Guide*.

Registration Number: NJSM-EF2EF8 (8/5/2013)  
Model Number: RD4M4 W40/40 14 120 E21 SCT LP835  
Type: Other

## DESCRIPTION

6 inch LED recessed narrow beam downlight specially designed for LED technology. Two-stage reflector system produces smooth distribution with excellent light control and low aperture brightness. Lumen packages include 1000, 1500, 2000 and 3000 lumens with color temperatures of 2700K, 3000K, 3500K, 4000K.

## SPECIFICATION FEATURES

### Lower Shielding Reflector

Self-flanged, spun .050" thick aluminum lower reflector in combination with a lensed upper optical chamber provides superior lumen output with minimal source brightness. Available in all Portfolio Alzak® finishes.

### Trim Retention

Lower reflector is retained with two torsion springs holding the flange tightly to the finished ceiling surface.

### Plaster Frame / Collar

New Construction Housing: Die cast aluminum 1-1/2" deep collar accommodates ceiling materials up to 2".

### Universal Mounting Bracket

Accepts 1/2" EMT, C channel and bar hangers and adjusts 5" vertically from above and below the ceiling.

### Junction Box

(4) 1/2" and (2) 3/4" trade size pry outs positioned to allow straight

conduit runs. Listed for (8) #12 AWG (four in, four out) 90°C conductors and feed thru branch wiring.

### Thermal

Extruded aluminum heat sink conducts heat away from the LED module for optimal performance and long life.

### LED

LED system contains a plurality of high brightness white LED's combined with a high reflectance upper reflector and convex transitional lens producing even distribution with no pixilation. Rated for 50,000 hours at 70% lumen maintenance. Auto resetting, thermally protected, LED's are turned off when safe operating temperatures are exceeded. Color variation within 3-step MacAdam ellipses. Flexible disconnect allows for tool-less replacement of LED engine from below ceiling. Available in 80 or 90 CRI.

### Driver

Combination 120-277V 0-10V or 120V trailing edge phase cut driver provides flicker free dimming from 100% to 10%. Optional 1% 0-10V, Fifth Light, DMX or Lutron® Ecosystem. Driver can be serviced from above or through the aperture.

### Code Compliance

Thermally protected and cULus listed for protected wet locations. IP66 rated when used with IP66 gasket kit accessory. Optional City of Chicago environmental air (CCEA) marking for plenum applications. EMI/RFI emissions per FCC 47CFR Part 18 Class B consumer limits. Non-IC rated - Insulation must be kept 3" from top and sides of housing. RoHS Compliant. Photometric testing completed in accordance with IES LM 79 standards. LED life testing completed in accordance with LM 80 standards.

### Warranty

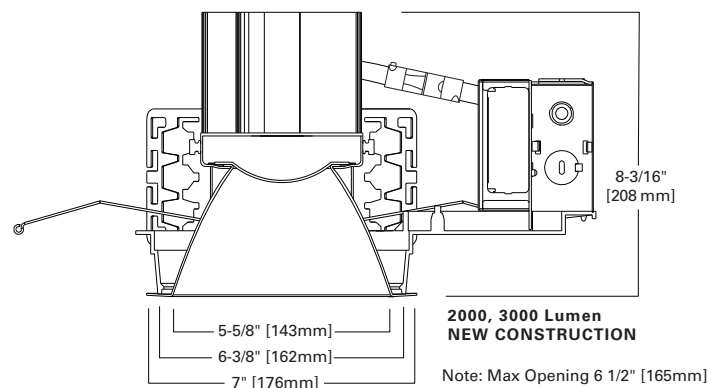
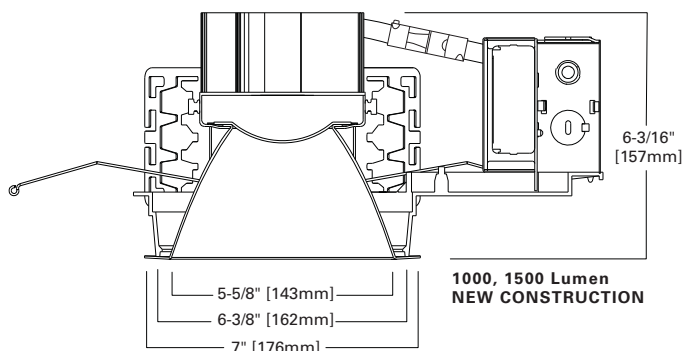
5 year warranty.



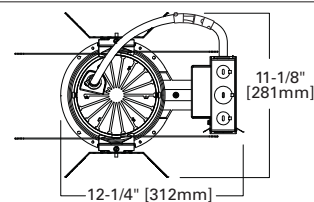
## LD6A10 LD6A15 LD6A20 LD6A30 6LN

1000, 1500 Lumen LED  
2000, 3000 Lumen LED

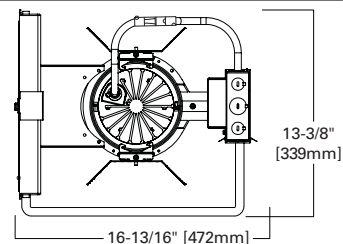
6-Inch  
Narrow Beam Downlight  
New Construction



### TOP VIEW - NEW CONSTRUCTION



### TOP VIEW - NEW CONSTRUCTION WITH BATTERY



Refer to ENERGY STAR® Qualified Products List. Can be used to comply with California Title 24 High Efficacy requirements. Certified to California Title 20 Appliance Efficiency Database.

**ORDERING INFORMATION**

**EXAMPLE: LD6A15D010TE ERN6A15835 6LN0L1=6" LED Narrow Beam Reflector, 1500 Lumen 3,500 K Color with Universal 120 - 277V, 0 - 10 Driver**

Housing	Lumens <sup>1</sup>	Driver	Options	Power Module	CRI	Color
LD6A=6" Aperture, LD6ACP=6" Aperture, Remodel Chicago	10=1000 Lumens 15=1500 Lumens 20=2000 Lumens 30=3000 Lumens	<b>1000, 1500, 2000 and 3000 Lumen</b> D010TE=120-277V 0-10V 10% Dimming or Trailing Edge 120V Dimming D5LT=Fifth Light® (DALI) Dimming 1-100% DE010=1 to 100% Dimming, 120-277V 50/60Hz, 0-10V DL3=1 to 100% Dimming, 120-277V Lutron® Hi-Lume, Ecosystem or 3 Wire DLT=1 to 100% Dimming, 120V Lutron® Hi-Lume Forward Phase Dimming DMX=DMX Dimming 1-100%  <b>1000, 1500 and 2000 Lumen</b> D010TR=120-277V 0-10V 10% Dimming or Leading Edge 120V Dimming	EMBOD=Bodine® Emergency Module with Remote Test Switch IEMBOD=Bodine® Emergency Module with Integral Test Switch	ERN6A10=6", 1000 Lumen Module for Narrow Beam Reflector ERN6A15=6", 1500 Lumen Module for Narrow Beam Reflector ERN6A20=6", 2000 Lumen Module for Narrow Beam Reflector ERN6A30=6", 3000 Lumen Module for Narrow Beam Reflector	8=80 CRI 9=90 CRI	27=2700° K 30=3000° K 35=3500° K 40=4000° K 27CP=2700° K, Chicago Plenum 30CP=3000° K, Chicago Plenum 35CP=3500° K, Chicago Plenum 40CP=4000° K, Chicago Plenum

Reflector	Finish	Options	Accessories
6LN0=6" Narrow Reflector, Polymer Trim Ring 6LN1=6" Narrow Reflector, Self-flanged 6LN0E=6" Narrow Reflector, Polymer Trim Ring for use with IEM Integral Emergency Option 6LN1E=6" Narrow Reflector, Self-flanged for use with IEM Integral Emergency Option	LI=Specular Clear H=Semi-Specular Clear WMH=Warm Haze G=Specular Gold WH=Wheat WHH=Wheat Haze GP=Graphite GPH=Graphite Haze  B=Specular Black W=Gloss White	Self-Flanged Only WF=White Painted Flange	HB26=C-channel Bar Hanger, 26" Long, Pair HB50=C-channel Bar Hanger, 50" Long, Pair RMB22=Wood Joist Bar Hanger, 22" Long, Pair H347=347 to 120V Step Down Transformer, 75VA H347200=347 to 120V Step Down Transformer, 200VA Housings, Specify Slope  HSA6=Slope Adapter for 6" Aperture Housings, Specify Slope TRM6=Metal Trim Ring, Specify Color <sup>2</sup> TRR6=Trimless Trim Ring <sup>2</sup> DT6=Deco Trim <sup>2</sup> LGSKT6IP66=IP66 Gasket Kit

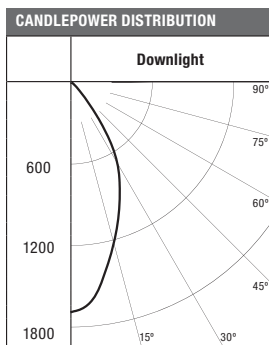
- Notes:** 1 Nominal Lumens will vary depending on selected color, driver and reflector finish.  
2 Order trim with polymer trim ring (Consult specification sheet for color ordering information and options).  
3 Not available with Chicago Plenum.

**ENERGY**

ENERGY DATA			
Sound Rating: Class A standards (Values at non-dimming line voltage)			
Minimum Starting Temperature: -30°C (-22°F)			
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)			
Input Voltage: UNV (120V - 277V)			
Power Factor: >0.90 (at nominal input 120-277 VAC & 100% of Rated Output Power)			
3000 Lumen D010TE		2000 Lumen D010TE	
Input Power: 43.6W	THD: <17%	Input Power: 31.5W	THD: <20%
120V Input Current: .37A	277V Input Current: .16A	120V Input Current: .27A	277V Input Current: .12A
Maximum Non-IC Ambient Continuous		Maximum Non-IC Ambient Continuous	
Input Frequency: 50/60Hz		Input Frequency: 50/60Hz	
1500 Lumen D010TE		1000 Lumen D010TE	
Input Power: 22.4W	THD: <20%	Input Power: 14.1W	THD: <20%
120V Input Current: .12A	277V Input Current: .09A	120V Input Current: .12A	277V Input Current: .06A
Maximum Non-IC Ambient Continuous		Maximum Non-IC Ambient Continuous	
Input Frequency: 50-60Hz		Input Frequency: 50-60Hz	

Lumens	120V		277V	
	Inrush (A)	Duration (ms)	Inrush (A)	Duration (ms)
900/1000	0.486	0.4	0.848	0.182
1300/1500	0.717	1.58	0.531	1.24
1800/2000	0.832	0.405	1.25	0.788
2800/3000	1.09	0.3	1.23	0.294

**PHOTOMETRICS**



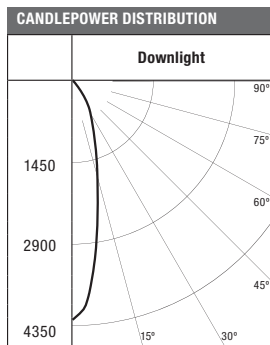
CANDELA TABLE	
Degrees Vertical	Candela
0	1684
5	1623
15	1223
25	853
35	454
45	97
55	22
65	8
75	3
85	0
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	%Fixture
0-30	881	69.0
0-40	1160	90.8
0-60	1266	99.1
0-90	1277	100
90-180	0	0
0-180	1277	100

CONE OF LIGHT		
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
5'5"	55	4.0
7"	34	5.0
8"	26	5.8
9"	20	6.6
10'	16	7.2
12'	11	8.8

LUMINANCE	
Average Candella Degrees	Average 0° Luminance
45	8959
55	2548
65	1158
75	756
85	0

PHOTOMETRICS



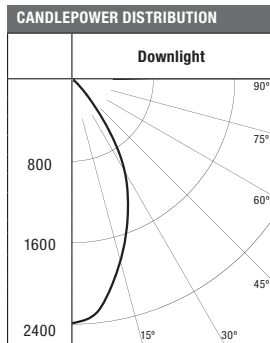
Test Number	P97939
LD6A15D010TE ERN6A835 6LN1LI	
Lumens	1450
Efficacy	64.7 Lm/W
Watts	22.4
CCT	3500K
SC	0.41

CONE OF LIGHT		
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
5'5"	139	2.2
7'	86	2.8
8'	66	3.2
9'	52	3.6
10'	42	4.0
12'	29	4.8

CANDELA TABLE	
Degrees Vertical	Candela
0	4226
5	3654
15	1689
25	823
35	374
45	45
55	3
65	1
75	0
85	0
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	%Fixture
0-30	1171	80.8
0-40	1401	96.6
0-60	1449	99.9
0-90	1450	100
90-180	0	0
0-180	1450	100

LUMINANCE	
Average Candella Degrees	Average 0° Luminance
45	4133
55	353
65	154
75	0
85	0



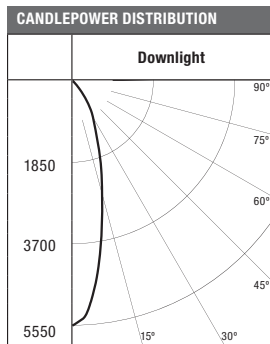
Test Number	P98503
LD6A20D010TE ERN6A835 6LN1H	
Lumens	1914
Efficacy	60.8 Lm/W
Watts	31.5
CCT	3500K
SC	0.79

CONE OF LIGHT		
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
5'5"	78	4.2
7'	48	5.4
8'	37	6.2
9'	29	7.0
10'	23	7.8
12'	16	9.4

CANDELA TABLE	
Degrees Vertical	Candela
0	2376
5	2314
15	1826
25	1287
35	676
45	157
55	33
65	12
75	3
85	1
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	%Fixture
0-30	1312	68.5
0-40	1730	90.4
0-60	1898	99.1
0-90	1914	100
90-180	0	0
0-180	1914	100

LUMINANCE	
Average Candella Degrees	Average 0° Luminance
45	14495
55	3742
65	1806
75	807
85	823



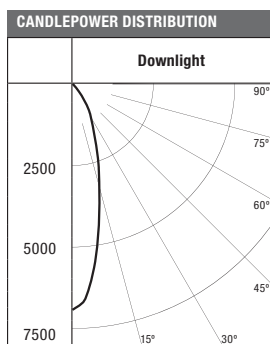
Test Number	P97555
LD6A20D010TE ERN6A835 6LN1LI	
Lumens	2209
Efficacy	70.1 Lm/W
Watts	31.5
CCT	3500K
SC	0.46

CONE OF LIGHT		
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
5'5"	182	2.4
7'	112	3.2
8'	86	3.6
9'	68	4.0
10'	55	4.6
12'	38	5.4

CANDELA TABLE	
Degrees Vertical	Candela
0	5515
5	4944
15	2581
25	1236
35	593
45	103
55	5
65	2
75	0
85	0
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	%Fixture
0-30	1740	78.8
0-40	2106	95.4
0-60	2207	99.9
0-90	2209	100
90-180	0	0
0-180	2209	100

LUMINANCE	
Average Candella Degrees	Average 0° Luminance
45	6784
55	423
65	188
75	0
85	0



Test Number	P97571
LD6A30D0E010 ERN6A30835 6LN1LI	
Lumens	2685 Lm
Efficacy	61.5 Lm/W
Watts	43.6 W
CCT	3500K
SC	0.46

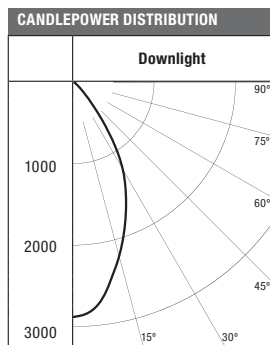
CONE OF LIGHT		
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
10'	67	5
15'	30	7
20'	17	9.5
25'	11	12
30'	7	14

CANDELA TABLE	
Degrees Vertical	Candela
0	6704
5	6010
15	3137
25	1502
35	721
45	125
55	6
65	2
75	0
85	0
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	%Fixture
0-30	2116	79
0-40	2560	95.5
0-60	2683	100
0-90	2685	100
90-180	0	0
0-180	2685	100

LUMINANCE	
Average Candella Degrees	Average 0° Luminance
45	8244
55	513
65	221
75	0
85	0

**PHOTOMETRICS**



Test Number	P98519
LD6A30DE010 ERN6A30835 6LN1H	
Lumens	2327 Lm
Efficacy	53 Lm/W
Watts	43.6 W
CCT	3500K
SC	0.8

CONE OF LIGHT		
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
10'	51	6
15'	29	8
20'	13	12
25'	9	14
30'	7	16

CANDELA TABLE	
Degrees Vertical	Candela
0	2888
5	2814
15	2220
25	1564
35	822
45	191
55	40
65	14
75	4
85	1
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	%Fixture
0-30	1595	68.5
0-40	2103	90.5
0-60	2307	99
0-90	2327	100
90-180	0	0
0-180	2327	100

LUMINANCE	
Average Candella Degrees	Average 0° Luminance
45	17622
55	4550
65	2192
75	983
85	973

EMBOD MULTIPLIER
900/1000 Lumen = .50
1300/1500 Lumen = .31
1800/2000 Lumen = .22
2800/3000 Lumen = .16

CCT Multiplication Factors		CCT [K]	Multiplier from 3500K	80 -> 90 CRI
80 CRI	1000 Lumen	2700	0.93	
		3000	0.99	
		3500	1.00	
		4000	1.01	
	1500 Lumen	2700	0.93	
		3000	0.99	
		3500	1.00	
		4000	1.01	
90 CRI	1000 Lumen	2700	0.88	0.79
		3000	0.95	0.80
		3500	1.00	0.84
		4000	1.03	0.86
	1500 Lumen	2700	0.88	0.79
		3000	0.94	0.79
		3500	1.00	0.84
		4000	1.03	0.86

## DESCRIPTION

6 inch LED recessed wide beam downlight specially designed for LED technology. Two-stage reflector system produces smooth distribution with excellent light control and low aperture brightness. Lumen packages include 1000, 1500, 2000, and 3000 lumens with color temperatures of 2700K, 3000K, 3500K, 4000K.

## SPECIFICATION FEATURES

### Lower Shielding Reflector

Self-flanged, spun .050" thick aluminum lower reflector in combination with a lensed upper optical chamber provides superior lumen output with minimal source brightness. Available in all Portfolio Alzak® finishes.

### Trim Retention

Lower reflector is retained with two torsion springs holding the flange tightly to the finished ceiling surface.

### Plaster Frame / Collar

New Construction Housing: Die cast aluminum 1-1/2" deep collar accommodates ceiling materials up to 2".

### Universal Mounting Bracket

Accepts 1/2" EMT, C channel and bar hangers and adjusts 5" vertically from above and below the ceiling.

### Junction Box

(4) 1/2" and (2) 3/4" trade size pry outs positioned to allow straight conduit runs. Listed for (8) #12 AWG (four in, four out) 90°C conductors and feed thru branch wiring.

### Thermal

Extruded aluminum heat sink conducts heat away from the LED module for optimal performance and long life.

### LED

LED system contains a plurality of high brightness white LED's combined with a high reflectance upper reflector and convex transitional lens producing even distribution with no pixilation. Rated for 50,000 hours at 70% lumen maintenance. Auto resetting, thermally protected, LED's are turned off when safe operating temperatures are exceeded. Color variation within 3-step MacAdam ellipses. Flexible disconnect allows for tool-less replacement of LED engine from below ceiling. Available in 80 or 90 CRI.

### Driver

Combination 120-277V 0-10V or 120V trailing edge phase cut driver provides flicker free dimming from 100% to 10%. Optional 1% 0-10V, Fifth Light, DMX or Lutron® Ecosystem. Driver can be serviced from above or through the aperture.

Catalog #	LD6A30DL3 ERW6A30835 6LW1LI	Type
Project		R10
Comments		Date
Prepared by		

### Code Compliance

Thermally protected and cULus listed for protected wet locations. IP66 rated when used with IP66 gasket kit accessory. Optional City of Chicago environmental air (CCEA) marking for plenum applications. EMI/RFI emissions per FCC 47CFR Part 18 Class B consumer limits. Non-IC rated - Insulation must be kept 3" from top and sides of housing. RoHS Compliant. Title 24 Compliant with designated trims. Photometric testing completed in accordance with IES LM 79 standards. LED life testing completed in accordance with LM 80 standards.

### Warranty

5 year warranty.



## LD6A10 LD6A15 LD6A20 LD6A30 6LW

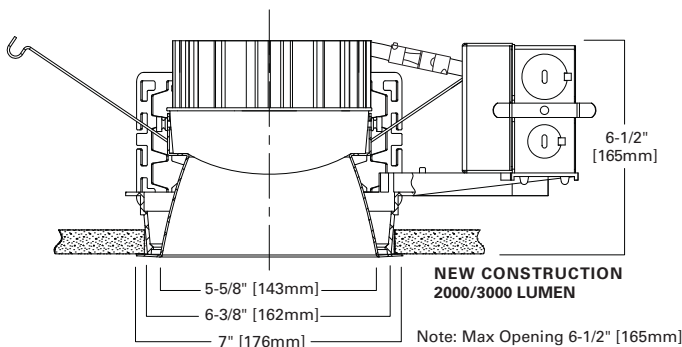
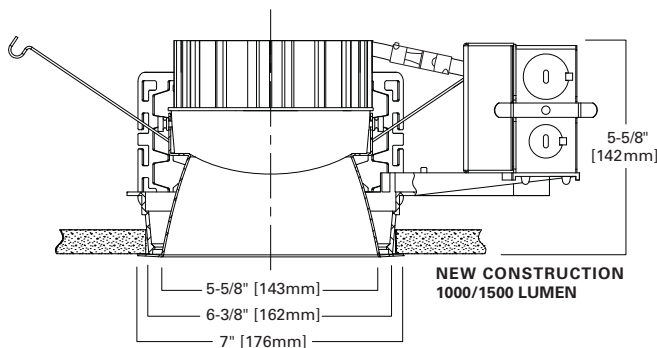
1000, 1500 Lumen LED  
2000, 3000 Lumen LED

6-Inch

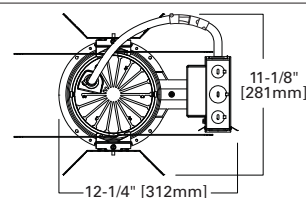
Wide Beam Downlight  
New Construction

### ENERGY DATA

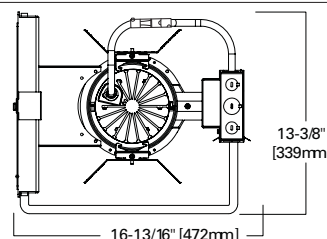
Sound Rating: Class A standards	
(Values at non-dimming line voltage)	
Minimum Starting Temperature: -30°C (-22°F)	
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)	
Input Voltage: UNV (120V - 277V)	
Power Factor: >0.90 (at nominal input 120-277 VAC & 100% of Rated Output Power)	
<b>3000 Lumen D010TE</b>	
Input Power: 43.6W	THD: <17%
120V Input Current: .37A	277V Input Current: .16A
Maximum Non-IC Ambient Continuous	
Input Frequency: 50/60Hz	
<b>2000 Lumen D010TE</b>	
Input Power: 31.5W	THD: <20%
120V Input Current: .27A	277V Input Current: .12A
Maximum Non-IC Ambient Continuous	
Input Frequency: 50/60Hz	
<b>1500 Lumen D010TE</b>	
Input Power: 22.4W	THD: <20%
120V Input Current: .12A	277V Input Current: .09A
Maximum Non-IC Ambient Continuous	
Input Frequency: 50/60Hz	
<b>1000 Lumen D010TE</b>	
Input Power: 14.1W	THD: <20%
120V Input Current: .12A	277V Input Current: .06A
Maximum Non-IC Ambient Continuous	
Input Frequency: 50/60Hz	



TOP VIEW - NEW CONSTRUCTION



TOP VIEW - NEW CONSTRUCTION WITH BATTERY



Refer to ENERGY STAR® Qualified Products List. Can be used to comply with California Title 24 High Efficacy requirements. Certified to California Title 20 Appliance Efficiency Database.

**ORDERING INFORMATION**

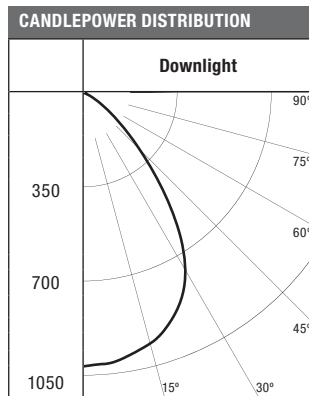
**EXAMPLE: LD6A15D010TE ERW6A15835 6LW1LI=6"** LED Wide Reflector Lens, 1500 Lumen 3,500 K Color with Universal 120 - 277V, 0 - 10 Driver

Housing	Lumens <sup>1</sup>	Driver	Options	Power Module	CRI	Color
<b>LD6A</b> =6" Aperture <b>LD6ACP</b> =6" Aperture, Chicago Plenum  <b>10</b> =1000 Lumens <b>15</b> =1500 Lumens <b>20</b> =2000 Lumens <b>30</b> =3000 Lumens	<b>1000, 1500, 2000 and 3000 Lumen</b> <b>D010TE</b> =120-277V 0-10V 10% Dimming or Trailing Edge 120V Dimming <b>D5LT</b> =Fifth Light® (DALI) Dimming 1-100% <b>DE010</b> =1 to 100% Dimming, 120-277V 50/60Hz, 0-10V <b>DL3</b> =1 to 100% Dimming, 120-277V Lutron® Hi-Lume, Ecosystem or 3 Wire <b>DLT</b> =1 to 100% Dimming, 120V Lutron® Hi-Lume Forward Phase Dimming <b>DMX</b> =DMX Dimming 1-100%  <b>1000, 1500 and 2000 Lumen</b> <b>D010TR</b> =120-277V 0-10V 10% Dimming or Leading Edge 120V Dimming	<b>EMBOD</b> =Bodine® Emergency Module with Remote Test Switch <sup>3,4</sup>	<b>ERW6A10</b> =6", 1000 Lumen Module for Wide Beam Reflector <b>ERW6A15</b> =6", 1500 Lumen Module for Wide Beam Reflector <b>ERW6A20</b> =6", 2000 Lumen Module for Wide Beam Reflector <b>ERW6A30</b> =6", 3000 Lumen Module for Wide Beam Reflector	<b>8</b> =80 CRI <b>9</b> =90 CRI	<b>27</b> =2700° K <b>30</b> =3000° K <b>35</b> =3500° K <b>40</b> =4000° K <b>27CP</b> =2700° K, Chicago Plenum Reflector <b>30CP</b> =3000° K, Chicago Plenum Reflector <b>35CP</b> =3500° K, Chicago Plenum Reflector <b>40CP</b> =4000° K, Chicago Plenum Reflector	

Reflector	Finish	Options	Accessories
<b>6LW0</b> =6" Wide Beam Reflector, Polymer Trim Ring <b>6LW1</b> =6" Wide Beam Reflector, Self-flanged	<b>LI</b> =Specular Clear <b>H</b> =Semi-Specular Clear <b>WMH</b> =Warm Haze <b>G</b> =Specular Gold <b>WH</b> =Wheat <b>WHH</b> =Wheat Haze <b>GP</b> =Graphite <b>GPH</b> =Graphite Haze  <b>B</b> =Specular Black <b>W</b> =Gloss White  <b>6LW0 Only</b> <b>BB</b> =Black Baffle <b>WB</b> =White Baffle	<b>Self-flanged Only</b> <b>WF</b> =White Painted Flange	<b>HB26</b> =C-channel Bar Hanger, 26" Long, Pair <b>HB50</b> =C-channel Bar Hanger, 50" Long, Pair <b>RMB22</b> =Wood Joist Bar Hanger, 22" Long, Pair <b>H347</b> =347 to 120V Step Down Transformer, 75VA <b>H347200</b> =347 to 120V Step Down Transformer, 200VA Housings, Specify Slope  <b>HSA6</b> =Slope Adapter for 6" Aperture Housings, Specify Slope <b>TRM6</b> =Metal Trim Ring, Specify Color <sup>2</sup> <b>TRR6</b> =Rimless Trim Ring <sup>2</sup> <b>DT6</b> =Deco Trim <sup>2</sup> <b>LGSKT6IP66</b> =IP66 Gasket Kit

- Notes:** 1 Nominal delivered Lumens will vary depending on selected color, driver and reflector finish.  
 2 Order trim with polymer trim ring (Consult specification sheet for color ordering information and options).  
 3 Not available with Chicago Plenum.  
 4 Not CSA approved.

**PHOTOMETRICS**



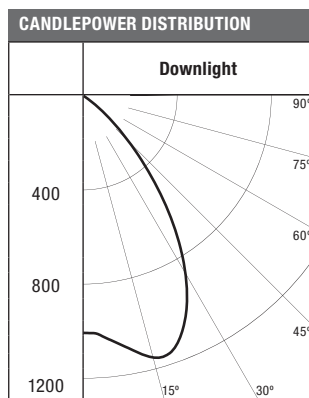
Test Number	P98323
ERW6A835	6LW1H
Lumens	1463
Efficacy	65.3 Lm/W
Watts	22.4
CCT	3500K
SC	1.13

Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
5'5"	33	6.0
7'	20	7.8
8'	16	9.0
9'	12	10.0
10'	10	11.2
12'	7	13.4

Degrees Vertical	Candela
0	1008
5	1002
15	956
25	845
35	602
45	281
55	98
65	19
75	5
85	0
90	0

Zone	Lumens	%Fixture
0-30	750	51.3
0-40	1122	76.7
0-60	1434	98
0-90	1463	100
90-180	0	0
0-180	1463	100

Average Candella Degrees	Average 0° Luminance
45	25954
55	11090
65	2964
75	1210
85	0



Test Number	P97443
ERW6A835	6LW1LI
Lumens	1552
Efficacy	69.2 Lm/W
Watts	22.4
CCT	3500K
SC	1.22

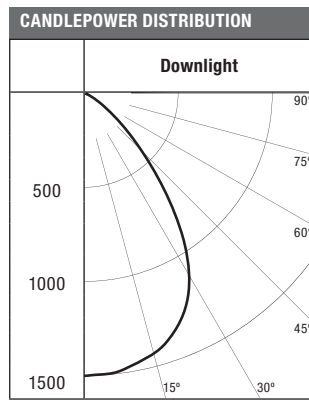
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
5'5"	34.0	6.5
7'	21.0	8.5
8'	16.0	9.5
9'	13.0	11.0
10'	10.5	12.0
12'	7.0	14.5

Degrees Vertical	Candela
0	1000
5	1021
15	1142
25	1022
35	663
45	267
55	39
65	2
75	0
85	0
90	0

Zone	Lumens	%Fixture
0-30	885	57
0-40	1294	83.4
0-60	1548	99.7
0-90	1552	100
90-180	0	0
0-180	1552	100

Average Candella Degrees	Average 0° Luminance
45	24598
55	4425
65	340
75	277
85	0

## PHOTOMETRICS



Test Number	P98615
LD6A20D010TE	ERW6A835 6LW1H
Lumens	2179
Efficacy	69.2 Lm/W
Watts	31.5
CCT	3500K
SC	1.13

**CONE OF LIGHT**

Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
5'5"	49	6.0
7'	30	7.8
8'	23	9.0
9'	18	10.0
10'	14	11.2
12'	10	13.4

**CANDELA TABLE**

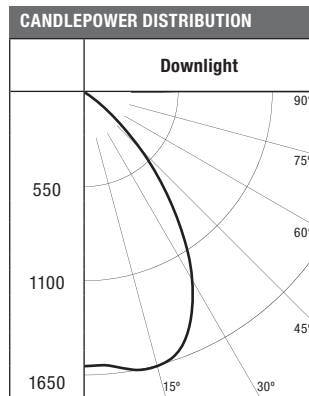
Degrees Vertical	Candela
0	1491
5	1486
15	1421
25	1258
35	891
45	424
55	147
65	30
75	6
85	1
90	0

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Fixture
0-30	1114	51.1
0-40	1664	76.4
0-60	2134	98.0
0-90	2179	100
90-180	0	0
0-180	2179	100

**LUMINANCE**

Average Candella Degrees	Average 0° Luminance
45	39074
55	16709
65	4662
75	1638
85	823



Test Number	P97715
LD6A20D010TE	ERW6A835 6LW1LI
Lumens	2349
Efficacy	74.6 Lm/W
Watts	31.5
CCT	3500K
SC	1.17

**CONE OF LIGHT**

Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
5'5"	52	6.4
7'	32	8.0
8'	24	9.2
9'	19	10.4
10'	15	11.6
12'	11	14.0

**CANDELA TABLE**

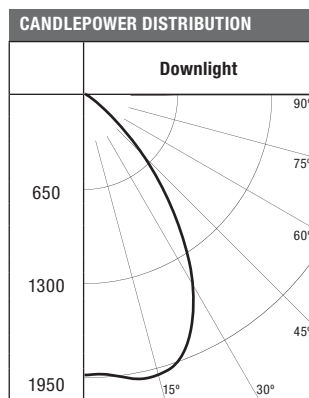
Degrees Vertical	Candela
0	1587
5	1588
15	1641
25	1458
35	989
45	453
55	93
65	5
75	2
85	0
90	0

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Fixture
0-30	1280	54.5
0-40	1893	80.6
0-60	2337	99.5
0-90	2349	100
90-180	0	0
0-180	2349	100

**LUMINANCE**

Average Candella Degrees	Average 0° Luminance
45	35128
55	8927
65	687
75	381
85	0



Test Number	P97731
LD6A30DE010	ERW6A30835 6LW1LI
Lumens	2838 Lm
Efficacy	65 Lm/W
Watts	43.6 W
CCT	3500K
SC	1.1

**CONE OF LIGHT**

Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
7'	39	8
8'	30	9
9'	24	10.5
10'	19	11.5
12'	13	14
15'	8.5	17.5

**CANDELA TABLE**

Degrees Vertical	Candela
0	1917
5	1919
15	1983
25	1761
35	1195
45	547
55	113
65	6
75	2
85	0
90	0

**ZONAL LUMEN SUMMARY**

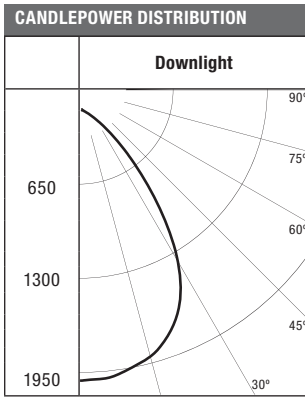
Zone	Lumens	%Fixture
0-30	1546	54.5
0-40	2287	80.5
0-60	2824	99.5
0-90	2838	100
90-180	0	0
0-180	2838	100

**LUMINANCE**

Average Candella Degrees	Average 0° Luminance
45	42439
55	10791
65	830
75	445
85	0



**PHOTOMETRICS**



Test Number	P98631
LD6A30DE010 ERW6A30835 6LW1H	
Lumens	2633 Lm
Efficacy	60.3 Lm/W
Watts	43.6 W
CCT	3500K
SC	1.1

CONE OF LIGHT		
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
7'	37	9
8'	28	9
9'	22	10
10'	18	10
12'	12.5	13.5
15'	8	17

CANDELA TABLE	
Degrees Vertical	Candela
0	1802
5	1795
15	1717
25	1520
35	1077
45	512
55	178
65	37
75	8
85	1
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	%Fixture
0-30	1347	51
0-40	2011	76.5
0-60	2579	98
0-90	2633	100
90-180	0	0
0-180	2633	100

LUMINANCE	
Average Candella Degrees	Average 0° Luminance
45	47212
55	20189
65	5650
75	1966
85	973

EMBOD MULTIPLIER
900/1000 Lumen= .50
1300/1500 Lumen= .31
1800/2000 Lumen= .22
2800/3000 Lumen= .16

## DESCRIPTION

6 inch LED recessed medium beam downlight with 50° cut off specially designed for LED technology. Two-stage reflector system produces smooth distribution with excellent light control and low aperture brightness. Lumen packages include 1000, 1500, 2000 and 3000 lumens with color temperatures of 2700K, 3000K, 3500K, 4000K.

Catalog #	LD6A20DL3 ERN6A20835 6LM1LI	Type
Project		R11
Comments		Date
Prepared by		

## SPECIFICATION FEATURES

### Lower Shielding Reflector

Self-flanged, spun .050" thick aluminum lower reflector in combination with a lensed upper optical chamber provides superior lumen output with minimal source brightness. Available in all Portfolio Alzak® finishes.

### Trim Retention

Lower reflector is retained with two torsion springs holding the flange tightly to the finished ceiling surface.

### Plaster Frame / Collar

New Construction Housing: Die cast aluminum 1-1/2" deep collar accommodates ceiling materials up to 2".

### Universal Mounting Bracket

Accepts 1/2" EMT, C channel and bar hangers and adjusts 5" vertically from above and below the ceiling.

### Junction Box

(4) 1/2" and (2) 3/4" trade size pry outs positioned to allow straight

conduit runs. Listed for (8) #12 AWG (four in, four out) 90°C conductors and feed thru branch wiring.

### Thermal

Extruded aluminum heat sink conducts heat away from the LED module for optimal performance and long life.

### LED

LED system contains a plurality of high brightness white LED's combined with a high reflectance upper reflector and convex transitional lens producing even distribution with no pixilation. Rated for 50,000 hours at 70% lumen maintenance. Auto resetting, thermally protected, LED's are turned off when safe operating temperatures are exceeded. Color variation within 3-step MacAdam ellipses. Flexible disconnect allows for tool-less replacement of LED engine from below ceiling. Available in 80 or 90 CRI.

### Driver

Combination 120-277V 0-10V or 120V trailing edge phase cut driver provides flicker free dimming from 100% to 10%. Optional 1% 0-10V, Fifth Light, DMX or Lutron® Ecosystem. Driver can be serviced from above or through the aperture.

### Code Compliance

Thermally protected and cULus listed for protected wet locations. IP66 rated when used with IP66 gasket kit accessory. Optional City of Chicago environmental air (CCEA) marking for plenum applications. EMI/RFI emissions per FCC 47CFR Part 18 Class B consumer limits. Non-IC rated - Insulation must be kept 3" from top and sides of housing. RoHS Compliant. Photometric testing completed in accordance with IES LM 79 standards. LED life testing completed in accordance with LM 80 standards.

### Warranty

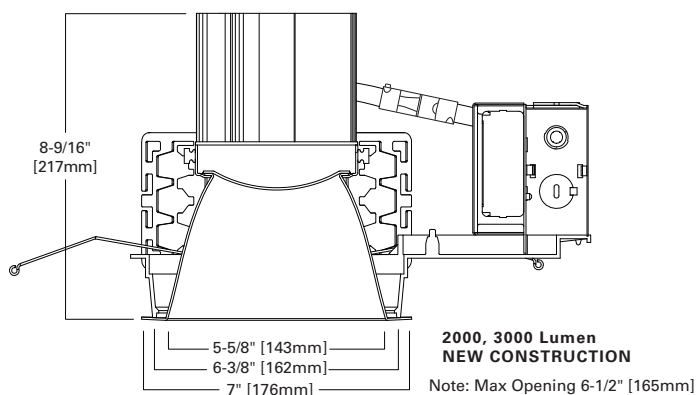
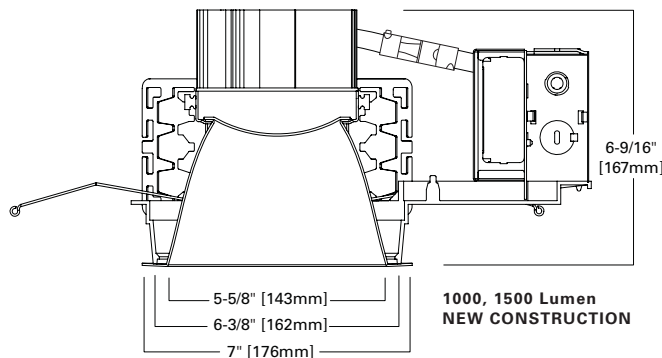
5 year warranty on LED housings, LED Modules and LED Trims.



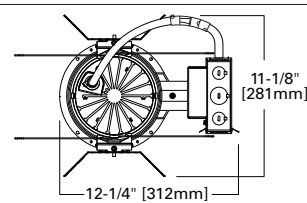
**LD6A10 LD6A15  
LD6A20 LD6A30  
6LM**

1000, 1500 Lumen LED  
2000, 3000 Lumen LED

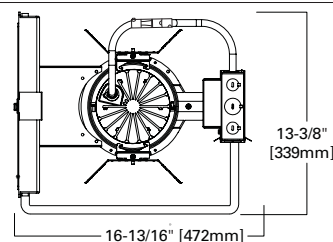
**6-Inch  
Medium Beam Downlight  
New Construction**



TOP VIEW - NEW CONSTRUCTION



TOP VIEW - NEW CONSTRUCTION WITH BATTERY



Refer to ENERGY STAR® Qualified Products List. Can be used to comply with California Title 24 High Efficacy requirements. Certified to California Title 20 Appliance Efficiency Database.



**ORDERING INFORMATION**

**EXAMPLE: LD6A15D010TE ERM6A15835 6LM0L1=6" LED Medium Beam Reflector, 1500 Lumen 3,500 K Color with Universal 120 - 277V, 0 - 10 Driver**

Housing	Lumens <sup>1</sup>	Driver	Options	Power Module	CRI	Color
LD6A=6" Aperture, LD6ACP=6" Aperture	10=1000 Lumens 15=1500 Lumens 20=2000 Lumens 30=3000 Lumens	<b>1000, 1500, 2000 and 3000 Lumen</b> D010TE=120-277V 0-10V 10% Dimming or Trailing Edge 120V Dimming D5LT=Fifth Light* (DALI) Dimming 1-100% DE010=1 to 100% Dimming, 120-277V 50/60Hz, 0-10V DL3=1 to 100% Dimming, 120-277V Lutron* Hi-Lume, Ecosystem or 3 Wire DLT=1 to 100% Dimming, 120V Lutron* Hi-Lume Forward Phase Dimming DMX=DMX Dimming 1-100%	EMBOD=Bodine* Emergency Module with Remote Test Switch IEMBOD=Bodine* Emergency Module with Integral test Switch <sup>3</sup>	ERM6A10=6", 1000 Lumen Module for Medium Beam Reflector ERM6A15=6", 1500 Lumen Module for Medium Beam Reflector ERM6A20=6", 2000 Lumen Module for Medium Beam Reflector ERM6A30=6", 3000 Lumen Module for Medium Beam Reflector	8=80 CRI 9=90 CRI	27=2700° K 30=3000° K 35=3500° K 40=4000° K 27CP=2700° K, Chicago Plenum 30CP=3000° K, Chicago plenum 35CP=3500° K, Chicago Plenum 40CP=4000° K, Chiago Plenum
		<b>1000, 1500 and 2000 Lumen</b> D010TR=120-277V 0-10V 10% Dimming or Leading Edge 120V Dimming				

Reflector	Finish	Options	Accessories
6LM0=6" Medium Reflector, Polymer Trim Ring 6LM1=6" Medium Reflector, Self-flanged 6LM0E=6" Medium Reflector, Polymer Trim Ring for use with IEM Integral Emergency Option 6LM1E=6" Medium Reflector, Self-flanged for use with IEM Integral Emergency Option	LI=Specular Clear H=Semi-Specular Clear WMH=Warm Haze G=Specular Gold WH=Wheat WHH=Wheat Haze GP=Graphite GPH=Graphite Haze	B=Specular Black W=Gloss White <b>6LM0, 6LM0E Only</b> BB=Black Baffle WB=White Baffle	HB26=C-channel Bar Hanger, 26" Long, Pair HB50=C-channel Bar Hanger, 50" Long, Pair RMB22=Wood Joist Bar Hanger, 22" Long, Pair H347=347 To 120V Step Down Transformer, 75VA H347200=347 to 120V Step Down Transformer, 200VA Housings, Specify Slope HSA6=Slope Adapter for 6" Aperture Housings, Specify Slope TRM6=Metal Trim Ring, Specify Color <sup>2</sup> TRR6=Rimless Trim Ring <sup>2</sup> DT6=Deco Trim <sup>2</sup> LGSKT6IP66= P66 Gasket Kit

- Notes:** 1 Nominal Lumens will vary depending on selected color, driver and reflector finish.  
2 Order trim with polymer trim ring (Consult specification sheet for color ordering information and options).  
3 Not available with Chicago Plenum.

**ENERGY**

ENERGY DATA	
Sound Rating: Class A standards	
(Values at non-dimming line voltage)	
Minimum Starting Temperature: -30°C (-22°F)	
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)	
Input Voltage: UNV (120V - 277V)	
Power Factor: >0.90 (at nominal input 120-277 VAC & 100% of Rated Output Power)	
3000 Lumen D010TE	2000 Lumen D010TE
Input Power: 43.6W THD: <17%	Input Power: 31.5W THD: <20%
120V Input Current: .37A 277V Input Current: .16A	120V Input Current: .27A 277V Input Current: .12A
Maximum Non-IC Ambient Continuous	Maximum Non-IC Ambient Continuous
Input Frequency: 50/60Hz	Input Frequency: 50/60Hz
1500 Lumen D010TE	1000 Lumen D010TE
Input Power: 22.4W THD: <20%	Input Power: 14.1W THD: <20%
120V Input Current: .12A 277V Input Current: .09A	120V Input Current: .12A 277V Input Current: .06A
Maximum Non-IC Ambient Continuous	Maximum Non-IC Ambient Continuous
Input Frequency: 50-60Hz	Input Frequency: 50-60Hz

Lumens	120V		277V	
	Inrush (A)	Duration (ms)	Inrush (A)	Duration (ms)
900/1000	0.486	0.4	0.848	0.182
1300/1500	0.717	1.58	0.531	1.24
1800/2000	0.832	0.405	1.25	0.788
2800/3000	1.09	0.3	1.23	0.294

**PHOTOMETRICS**

**CANDLEPOWER DISTRIBUTION**

**TEST DATA**

Test Number P98227  
LD6A15D010TE ERM6A835 6LM1H  
Lumens 1347  
Efficacy 60.1 Lm/W  
Watts 22.4  
CCT 3500K  
SC 0.92

**CANDELA TABLE**

Degrees Vertical	Candela
0	1468
5	1436
15	1238
25	969
35	468
45	116
55	25
65	8
75	2
85	0
90	0

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Fixture
0-30	919	68.2
0-40	1213	90.1
0-60	1336	99.2
0-90	1347	100
90-180	0	0
0-180	1347	100

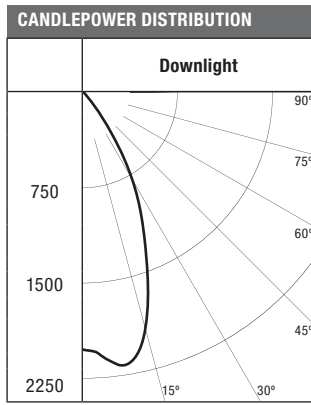
**CONE OF LIGHT**

Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
5'5"	48	5.0
7'	30	6.5
8'	22	7.0
9'	18	8.0
10'	14	9.0
12'	10	11.0

**LUMINANCE**

Average Candella Degrees	Average 0° Luminance
45	10749
55	2889
65	1158
75	378
85	0

PHOTOMETRICS



Test Number	P97379
LD6A15D010TE ERM6A835 6LM1LI	
Lumens	1509
Efficacy	67.4 Lm/W
Watts	22.4
CCT	3500K
SC	0.83

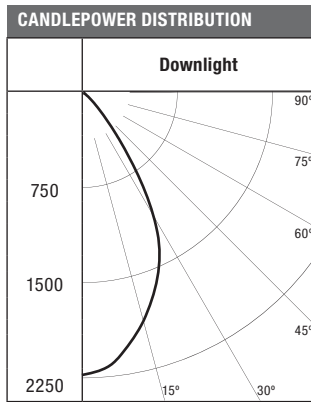
CONE OF LIGHT		
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
5'5"	69	4.0
7'	42	5.6
8'	32	6.0
9'	25	7.0
10'	21	8.0
12'	14	9.5

CANDELA TABLE	
Degrees Vertical	Candela
0	2018
5	2098
15	1908
25	1097
35	381
45	29
55	4
65	1
75	0
85	0
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	%Fixture
0-30	1225	81.2
0-40	1471	97.5
0-60	1507	99.9
0-90	1509	100
90-180	0	0
0-180	1509	100

LUMINANCE	
Average Candella Degrees	Average 0° Luminance
45	2676
55	455
65	154
75	0
85	0

Lumen Output Bodine:...Emergency .45



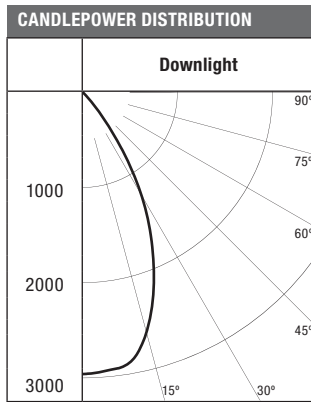
Test Number	P98531
LD6A20D010TE ERM6A835 6LM1H	
Lumens	2018
Efficacy	64.1 Lm/W
Watts	31.5
CCT	3500K
SC	0.91

CONE OF LIGHT		
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
5'5"	73	4.8
7'	45	6.2
8'	34	7.2
9'	27	8.0
10'	22	9.0
12'	15	10.8

CANDELA TABLE	
Degrees Vertical	Candela
0	2212
5	2164
15	1855
25	1435
35	698
45	180
55	40
65	12
75	3
85	1
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	%Fixture
0-30	1370	67.9
0-40	1810	89.7
0-60	2001	99.2
0-90	2018	100
90-180	0	0
0-180	2018	100

LUMINANCE	
Average Candella Degrees	Average 0° Luminance
45	16654
55	4504
65	1775
75	781
85	749



Test Number	P97631
LD6A20D010TE ERM6A835 6LM1LI	
Lumens	2301
Efficacy	73 Lm/W
Watts	31.5
CCT	3500K
SC	0.85

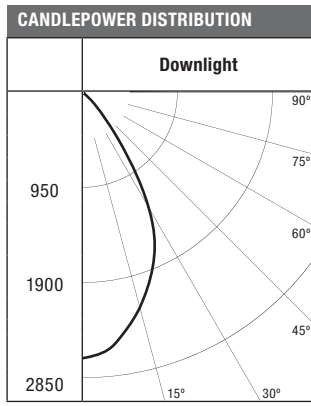
CONE OF LIGHT		
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
5'5"	97	4.6
7'	60	5.8
8'	45	6.8
9'	36	7.6
10'	29	8.4
12'	20	10.2

CANDELA TABLE	
Degrees Vertical	Candela
0	2940
5	2913
15	2588
25	1706
35	694
45	85
55	9
65	4
75	2
85	0
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	%Fixture
0-30	1768	76.9
0-40	2204	95.8
0-60	2296	99.8
0-90	2301	100
90-180	0	0
0-180	2301	100

LUMINANCE	
Average Candella Degrees	Average 0° Luminance
45	6865
55	887
65	487
75	376
85	0

**PHOTOMETRICS**



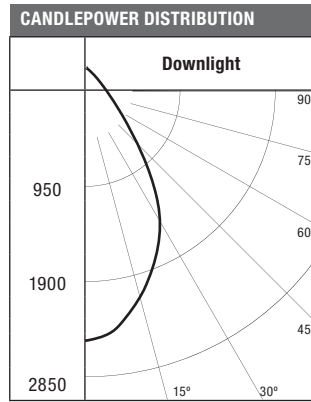
Test Number	P97647
LD6A30DE010 ERM6A30835 6LM1LI	
Lumens	2809 Lm
Efficacy	64.4 Lm/W
Watts	43.6 W
CCT	3500K
SC	0.8

CONE OF LIGHT		
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
7'	73	6
8'	56	7
9'	44	7.5
10'	36	8.5
12'	25	10
15'	16	12.5

CANDELA TABLE	
Degrees Vertical	Candela
0	3589
5	3557
15	3159
25	2082
35	848
45	104
55	11
65	4
75	2
85	0
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	%Fixture
0-30	2159	77
0-40	2691	96
0-60	2803	100
0-90	2809	100
90-180	0	0
0-180	2809	100

LUMINANCE	
Average Candella Degrees	Average 0° Luminance
45	8385
55	1087
65	595
75	464
85	0



Test Number	P98547
LD6A30DE010 ERM6A30835 6LM1H	
Lumens	2464 Lm
Efficacy	56.5 Lm/W
Watts	43.6 W
CCT	3500K
SC	0.9

CONE OF LIGHT		
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
7'	55	6
8'	42	7
9'	33.5	8
10'	27	9
12'	19	11
15'	12	13.5

CANDELA TABLE	
Degrees Vertical	Candela
0	2702
5	2643
15	2266
25	1753
35	853
45	220
55	48
65	14
75	4
85	1
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	%Fixture
0-30	1672	68
0-40	2210	90
0-60	2444	99
0-90	2464	100
90-180	0	0
0-180	2464	100

LUMINANCE	
Average Candella Degrees	Average 0° Luminance
45	20335
55	5505
65	2161
75	958
85	973

EMBOD MULTIPLIER	
900/1000 Lumen=	.50
1300/1500 Lumen=	.31
1800/2000 Lumen=	.22
2800/3000 Lumen=	.16

CCT Multiplication Factors		CCT [K]	Multiplier from 3500K	80 -> 90 CRI
80 CRI	1000 Lumen	2700	0.93	
		3000	0.99	
		3500	1.00	
		4000	1.01	
	1500 Lumen	2700	0.93	
		3000	0.99	
		3500	1.00	
		4000	1.01	
90 CRI	1000 Lumen	2700	0.88	0.79
		3000	0.95	0.80
		3500	1.00	0.84
		4000	1.03	0.86
	1500 Lumen	2700	0.88	0.79
		3000	0.94	0.79
		3500	1.00	0.84
		4000	1.03	0.86

## DESCRIPTION

6 inch LED recessed wide beam downlight specially designed for LED technology. Two-stage reflector system produces smooth distribution with excellent light control and low aperture brightness. Lumen packages include 1000, 1500, 2000, and 3000 lumens with color temperatures of 2700K, 3000K, 3500K, 4000K.

## SPECIFICATION FEATURES

### Lower Shielding Reflector

Self-flanged, spun .050" thick aluminum lower reflector in combination with a lensed upper optical chamber provides superior lumen output with minimal source brightness. Available in all Portfolio Alzak® finishes.

### Trim Retention

Lower reflector is retained with two torsion springs holding the flange tightly to the finished ceiling surface.

### Plaster Frame / Collar

New Construction Housing: Die cast aluminum 1-1/2" deep collar accommodates ceiling materials up to 2".

### Universal Mounting Bracket

Accepts 1/2" EMT, C channel and bar hangers and adjusts 5" vertically from above and below the ceiling.

### Junction Box

(4) 1/2" and (2) 3/4" trade size pry outs positioned to allow straight conduit runs. Listed for (8) #12 AWG (four in, four out) 90°C conductors and feed thru branch wiring.

### Thermal

Extruded aluminum heat sink conducts heat away from the LED module for optimal performance and long life.

### LED

LED system contains a plurality of high brightness white LED's combined with a high reflectance upper reflector and convex transitional lens producing even distribution with no pixilation. Rated for 50,000 hours at 70% lumen maintenance. Auto resetting, thermally protected, LED's are turned off when safe operating temperatures are exceeded. Color variation within 3-step MacAdam ellipses. Flexible disconnect allows for tool-less replacement of LED engine from below ceiling. Available in 80 or 90 CRI.

### Driver

Combination 120-277V 0-10V or 120V trailing edge phase cut driver provides flicker free dimming from 100% to 10%. Optional 1% 0-10V, Fifth Light, DMX or Lutron® Ecosystem. Driver can be serviced from above or through the aperture.

Catalog #	LD6A10DL3 ERW6A10835 6LW1LI	Type
Project		R2
Comments		Date
Prepared by		

### Code Compliance

Thermally protected and cULus listed for protected wet locations. IP66 rated when used with IP66 gasket kit accessory. Optional City of Chicago environmental air (CCEA) marking for plenum applications. EMI/RFI emissions per FCC 47CFR Part 18 Class B consumer limits. Non-IC rated - Insulation must be kept 3" from top and sides of housing. RoHS Compliant. Title 24 Compliant with designated trims. Photometric testing completed in accordance with IES LM 79 standards. LED life testing completed in accordance with LM 80 standards.

### Warranty

5 year warranty.



## LD6A10 LD6A15 LD6A20 LD6A30 6LW

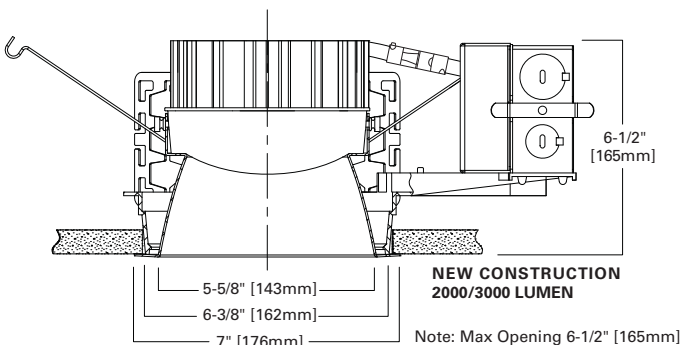
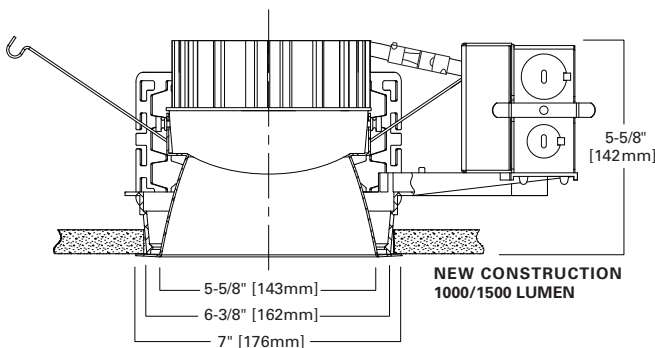
1000, 1500 Lumen LED  
2000, 3000 Lumen LED

6-Inch

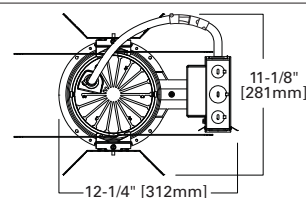
Wide Beam Downlight  
New Construction

### ENERGY DATA

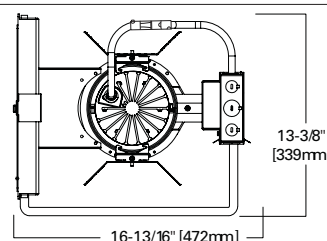
Sound Rating: Class A standards	
(Values at non-dimming line voltage)	
Minimum Starting Temperature: -30°C (-22°F)	
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)	
Input Voltage: UNV (120V - 277V)	
Power Factor: >0.90 (at nominal input 120-277 VAC & 100% of Rated Output Power)	
<b>3000 Lumen D010TE</b>	
Input Power: 43.6W	THD: <17%
120V Input Current: .37A	277V Input Current: .16A
Maximum Non-IC Ambient Continuous	
Input Frequency: 50/60Hz	
<b>2000 Lumen D010TE</b>	
Input Power: 31.5W	THD: <20%
120V Input Current: .27A	277V Input Current: .12A
Maximum Non-IC Ambient Continuous	
Input Frequency: 50/60Hz	
<b>1500 Lumen D010TE</b>	
Input Power: 22.4W	THD: <20%
120V Input Current: .12A	277V Input Current: .09A
Maximum Non-IC Ambient Continuous	
Input Frequency: 50/60Hz	
<b>1000 Lumen D010TE</b>	
Input Power: 14.1W	THD: <20%
120V Input Current: .12A	277V Input Current: .06A
Maximum Non-IC Ambient Continuous	
Input Frequency: 50/60Hz	



TOP VIEW - NEW CONSTRUCTION



TOP VIEW - NEW CONSTRUCTION WITH BATTERY



**ORDERING INFORMATION**

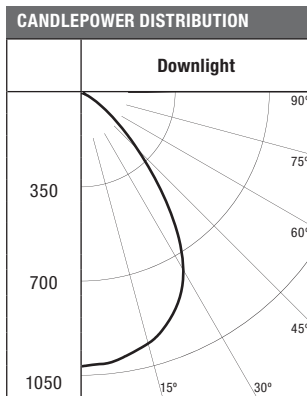
**EXAMPLE: LD6A15D010TE ERW6A15835 6LW1LI=6"** LED Wide Reflector Lens, 1500 Lumen 3,500 K Color with Universal 120 - 277V, 0 - 10 Driver

Housing	Lumens <sup>1</sup>	Driver	Options	Power Module	CRI	Color
<b>LD6A</b> =6" Aperture <b>LD6ACP</b> =6" Aperture, Chicago Plenum  <b>10</b> =1000 Lumens <b>15</b> =1500 Lumens <b>20</b> =2000 Lumens <b>30</b> =3000 Lumens	<b>1000, 1500, 2000 and 3000 Lumen</b> <b>D010TE</b> =120-277V 0-10V 10% Dimming or Trailing Edge 120V Dimming <b>D5LT</b> =Fifth Light® (DALI) Dimming 1-100% <b>DE010</b> =1 to 100% Dimming, 120-277V 50/60Hz, 0-10V <b>DL3</b> =1 to 100% Dimming, 120-277V Lutron® Hi-Lume, Ecosystem or 3 Wire <b>DLT</b> =1 to 100% Dimming, 120V Lutron® Hi-Lume Forward Phase Dimming <b>DMX</b> =DMX Dimming 1-100%  <b>1000, 1500 and 2000 Lumen</b> <b>D010TR</b> =120-277V 0-10V 10% Dimming or Leading Edge 120V Dimming	<b>EMBOD</b> =Bodine® Emergency Module with Remote Test Switch <sup>3,4</sup>	<b>ERW6A10</b> =6", 1000 Lumen Module for Wide Beam Reflector <b>ERW6A15</b> =6", 1500 Lumen Module for Wide Beam Reflector <b>ERW6A20</b> =6", 2000 Lumen Module for Wide Beam Reflector <b>ERW6A30</b> =6", 3000 Lumen Module for Wide Beam Reflector	<b>8</b> =80 CRI <b>9</b> =90 CRI	<b>27</b> =2700° K <b>30</b> =3000° K <b>35</b> =3500° K <b>40</b> =4000° K <b>27CP</b> =2700° K, Chicago Plenum Reflector <b>30CP</b> =3000° K, Chicago Plenum Reflector <b>35CP</b> =3500° K, Chicago Plenum Reflector <b>40CP</b> =4000° K, Chicago Plenum Reflector	

Reflector	Finish	Options	Accessories
<b>6LW0</b> =6" Wide Beam Reflector, Polymer Trim Ring <b>6LW1</b> =6" Wide Beam Reflector, Self-flanged	<b>LI</b> =Specular Clear <b>H</b> =Semi-Specular Clear <b>WMH</b> =Warm Haze <b>G</b> =Specular Gold <b>WH</b> =Wheat <b>WHH</b> =Wheat Haze <b>GP</b> =Graphite <b>GPH</b> =Graphite Haze  <b>B</b> =Specular Black <b>W</b> =Gloss White  <b>6LW0 Only</b> <b>BB</b> =Black Baffle <b>WB</b> =White Baffle	<b>Self-flanged Only</b> <b>WF</b> =White Painted Flange	<b>HB26</b> =C-channel Bar Hanger, 26" Long, Pair <b>HB50</b> =C-channel Bar Hanger, 50" Long, Pair <b>RMB22</b> =Wood Joist Bar Hanger, 22" Long, Pair <b>H347</b> =347 to 120V Step Down Transformer, 75VA <b>H347200</b> =347 to 120V Step Down Transformer, 200VA Housings, Specify Slope  <b>HSA6</b> =Slope Adapter for 6" Aperture Housings, Specify Slope <b>TRM6</b> =Metal Trim Ring, Specify Color <sup>2</sup> <b>TRR6</b> =Rimless Trim Ring <sup>2</sup> <b>DT6</b> =Deco Trim <sup>2</sup> <b>LGSKT6IP66</b> =IP66 Gasket Kit

- Notes:** 1 Nominal delivered Lumens will vary depending on selected color, driver and reflector finish.  
 2 Order trim with polymer trim ring (Consult specification sheet for color ordering information and options).  
 3 Not available with Chicago Plenum.  
 4 Not CSA approved.

**PHOTOMETRICS**



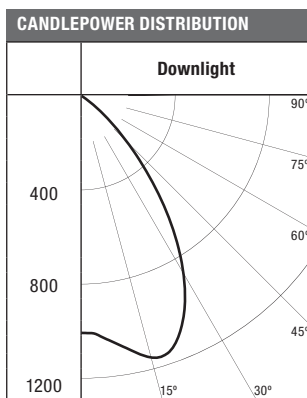
Test Number	P98323
ERW6A835	6LW1H
Lumens	1463
Efficacy	65.3 Lm/W
Watts	22.4
CCT	3500K
SC	1.13

Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
5'5"	33	6.0
7'	20	7.8
8'	16	9.0
9'	12	10.0
10'	10	11.2
12'	7	13.4

Degrees Vertical	Candela
0	1008
5	1002
15	956
25	845
35	602
45	281
55	98
65	19
75	5
85	0
90	0

Zone	Lumens	%Fixture
0-30	750	51.3
0-40	1122	76.7
0-60	1434	98
0-90	1463	100
90-180	0	0
0-180	1463	100

Average Candella Degrees	Average 0° Luminance
45	25954
55	11090
65	2964
75	1210
85	0



Test Number	P97443
ERW6A835	6LW1LI
Lumens	1552
Efficacy	69.2 Lm/W
Watts	22.4
CCT	3500K
SC	1.22

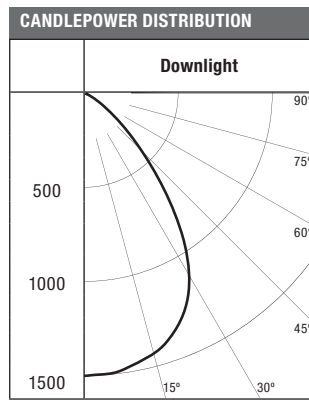
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
5'5"	34.0	6.5
7'	21.0	8.5
8'	16.0	9.5
9'	13.0	11.0
10'	10.5	12.0
12'	7.0	14.5

Degrees Vertical	Candela
0	1000
5	1021
15	1142
25	1022
35	663
45	267
55	39
65	2
75	0
85	0
90	0

Zone	Lumens	%Fixture
0-30	885	57
0-40	1294	83.4
0-60	1548	99.7
0-90	1552	100
90-180	0	0
0-180	1552	100

Average Candella Degrees	Average 0° Luminance
45	24598
55	4425
65	340
75	277
85	0

## PHOTOMETRICS



Test Number	P98615
LD6A20D010TE	ERW6A835 6LW1H
Lumens	2179
Efficacy	69.2 Lm/W
Watts	31.5
CCT	3500K
SC	1.13

**CONE OF LIGHT**

Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
5'5"	49	6.0
7'	30	7.8
8'	23	9.0
9'	18	10.0
10'	14	11.2
12'	10	13.4

**CANDELA TABLE**

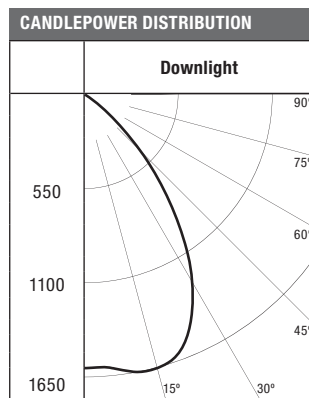
Degrees Vertical	Candela
0	1491
5	1486
15	1421
25	1258
35	891
45	424
55	147
65	30
75	6
85	1
90	0

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Fixture
0-30	1114	51.1
0-40	1664	76.4
0-60	2134	98.0
0-90	2179	100
90-180	0	0
0-180	2179	100

**LUMINANCE**

Average Candella Degrees	Average 0° Luminance
45	39074
55	16709
65	4662
75	1638
85	823



Test Number	P97715
LD6A20D010TE	ERW6A835 6LW1LI
Lumens	2349
Efficacy	74.6 Lm/W
Watts	31.5
CCT	3500K
SC	1.17

**CONE OF LIGHT**

Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
5'5"	52	6.4
7'	32	8.0
8'	24	9.2
9'	19	10.4
10'	15	11.6
12'	11	14.0

**CANDELA TABLE**

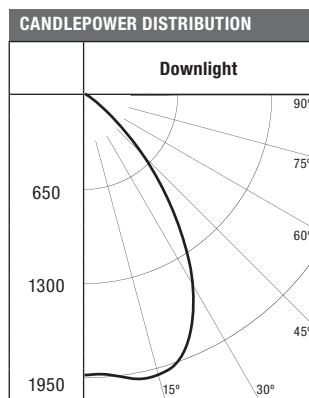
Degrees Vertical	Candela
0	1587
5	1588
15	1641
25	1458
35	989
45	453
55	93
65	5
75	2
85	0
90	0

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Fixture
0-30	1280	54.5
0-40	1893	80.6
0-60	2337	99.5
0-90	2349	100
90-180	0	0
0-180	2349	100

**LUMINANCE**

Average Candella Degrees	Average 0° Luminance
45	35128
55	8927
65	687
75	381
85	0



Test Number	P97731
LD6A30DE010	ERW6A30835 6LW1LI
Lumens	2838 Lm
Efficacy	65 Lm/W
Watts	43.6 W
CCT	3500K
SC	1.1

**CONE OF LIGHT**

Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
7'	39	8
8'	30	9
9'	24	10.5
10'	19	11.5
12'	13	14
15'	8.5	17.5

**CANDELA TABLE**

Degrees Vertical	Candela
0	1917
5	1919
15	1983
25	1761
35	1195
45	547
55	113
65	6
75	2
85	0
90	0

**ZONAL LUMEN SUMMARY**

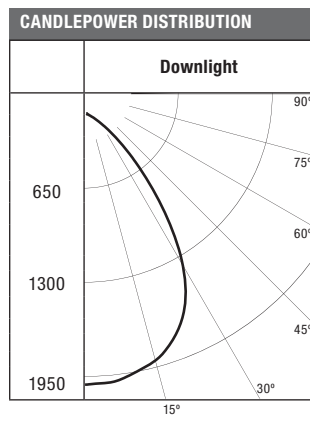
Zone	Lumens	%Fixture
0-30	1546	54.5
0-40	2287	80.5
0-60	2824	99.5
0-90	2838	100
90-180	0	0
0-180	2838	100

**LUMINANCE**

Average Candella Degrees	Average 0° Luminance
45	42439
55	10791
65	830
75	445
85	0



**PHOTOMETRICS**



Test Number	P98631
LD6A30DE010 ERW6A30835 6LW1H	
Lumens	2633 Lm
Efficacy	60.3 Lm/W
Watts	43.6 W
CCT	3500K
SC	1.1

CONE OF LIGHT		
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
7'	37	9
8'	28	9
9'	22	10
10'	18	10
12'	12.5	13.5
15'	8	17

CANDELA TABLE	
Degrees Vertical	Candela
0	1802
5	1795
15	1717
25	1520
35	1077
45	512
55	178
65	37
75	8
85	1
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	%Fixture
0-30	1347	51
0-40	2011	76.5
0-60	2579	98
0-90	2633	100
90-180	0	0
0-180	2633	100

LUMINANCE	
Average Candella Degrees	Average 0° Luminance
45	47212
55	20189
65	5650
75	1966
85	973

EMBOD MULTIPLIER
900/1000 Lumen= .50
1300/1500 Lumen= .31
1800/2000 Lumen= .22
2800/3000 Lumen= .16

## DESCRIPTION

6 inch LED recessed wide beam downlight specially designed for LED technology. Two-stage reflector system produces smooth distribution with excellent light control and low aperture brightness. Lumen packages include 1000, 1500, 2000, and 3000 lumens with color temperatures of 2700K, 3000K, 3500K, 4000K.

## SPECIFICATION FEATURES

### Lower Shielding Reflector

Self-flanged, spun .050" thick aluminum lower reflector in combination with a lensed upper optical chamber provides superior lumen output with minimal source brightness. Available in all Portfolio Alzak® finishes.

### Trim Retention

Lower reflector is retained with two torsion springs holding the flange tightly to the finished ceiling surface.

### Plaster Frame / Collar

New Construction Housing: Die cast aluminum 1-1/2" deep collar accommodates ceiling materials up to 2".

### Universal Mounting Bracket

Accepts 1/2" EMT, C channel and bar hangers and adjusts 5" vertically from above and below the ceiling.

### Junction Box

(4) 1/2" and (2) 3/4" trade size pry outs positioned to allow straight conduit runs. Listed for (8) #12 AWG (four in, four out) 90°C conductors and feed thru branch wiring.

### Thermal

Extruded aluminum heat sink conducts heat away from the LED module for optimal performance and long life.

### LED

LED system contains a plurality of high brightness white LED's combined with a high reflectance upper reflector and convex transitional lens producing even distribution with no pixilation. Rated for 50,000 hours at 70% lumen maintenance. Auto resetting, thermally protected, LED's are turned off when safe operating temperatures are exceeded. Color variation within 3-step MacAdam ellipses. Flexible disconnect allows for tool-less replacement of LED engine from below ceiling. Available in 80 or 90 CRI.

### Driver

Combination 120-277V 0-10V or 120V trailing edge phase cut driver provides flicker free dimming from 100% to 10%. Optional 1% 0-10V, Fifth Light, DMX or Lutron® Ecosystem. Driver can be serviced from above or through the aperture.

Catalog #	LD6A15DL3 ERW6A15835 6LW1LI	Type
Project		R3
Comments		Date
Prepared by		

### Code Compliance

Thermally protected and cULus listed for protected wet locations. IP66 rated when used with IP66 gasket kit accessory. Optional City of Chicago environmental air (CCEA) marking for plenum applications. EMI/RFI emissions per FCC 47CFR Part 18 Class B consumer limits. Non-IC rated - Insulation must be kept 3" from top and sides of housing. RoHS Compliant. Title 24 Compliant with designated trims. Photometric testing completed in accordance with IES LM 79 standards. LED life testing completed in accordance with LM 80 standards.

### Warranty

5 year warranty.



## LD6A10 LD6A15 LD6A20 LD6A30 6LW

1000, 1500 Lumen LED  
2000, 3000 Lumen LED

6-Inch

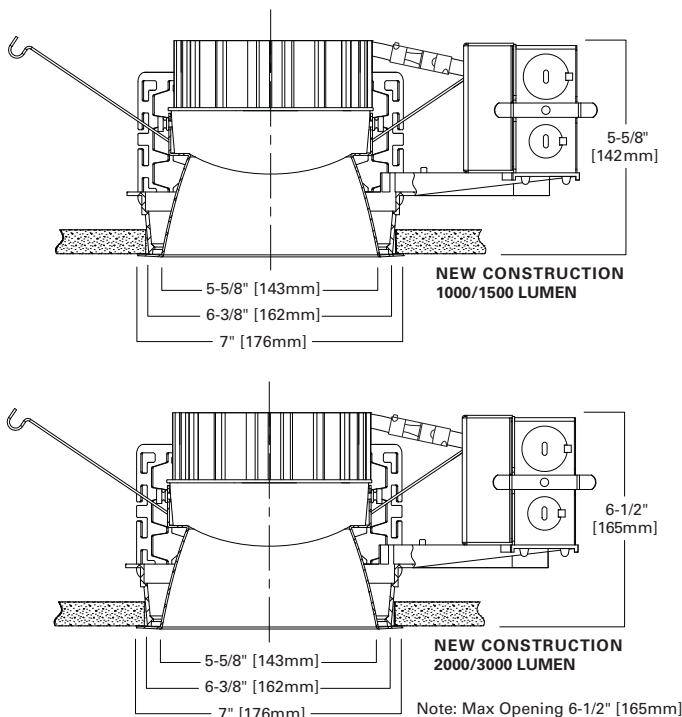
Wide Beam Downlight  
New Construction

### ENERGY DATA

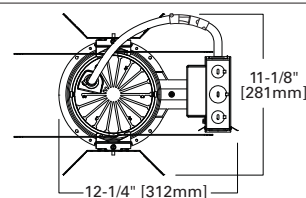
Sound Rating: Class A standards	
(Values at non-dimming line voltage)	
Minimum Starting Temperature: -30°C (-22°F)	
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)	
Input Voltage: UNV (120V - 277V)	
Power Factor: >0.90 (at nominal input 120-277 VAC & 100% of Rated Output Power)	
<b>3000 Lumen D010TE</b>	
Input Power: 43.6W	THD: <17%
120V Input Current: .37A	277V Input Current: .16A
Maximum Non-IC Ambient Continuous	
Input Frequency: 50/60Hz	
<b>2000 Lumen D010TE</b>	
Input Power: 31.5W	THD: <20%
120V Input Current: .27A	277V Input Current: .12A
Maximum Non-IC Ambient Continuous	
Input Frequency: 50/60Hz	
<b>1500 Lumen D010TE</b>	
Input Power: 22.4W	THD: <20%
120V Input Current: .12A	277V Input Current: .09A
Maximum Non-IC Ambient Continuous	
Input Frequency: 50/60Hz	
<b>1000 Lumen D010TE</b>	
Input Power: 14.1W	THD: <20%
120V Input Current: .12A	277V Input Current: .06A
Maximum Non-IC Ambient Continuous	
Input Frequency: 50/60Hz	



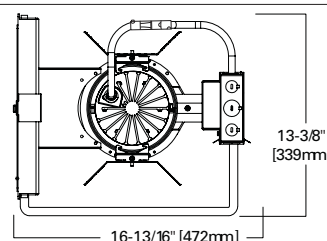
Refer to ENERGY STAR® Qualified Products List. Can be used to comply with California Title 24 High Efficacy requirements. Certified to California Title 20 Appliance Efficiency Database.



TOP VIEW - NEW CONSTRUCTION



TOP VIEW - NEW CONSTRUCTION WITH BATTERY



**ORDERING INFORMATION**

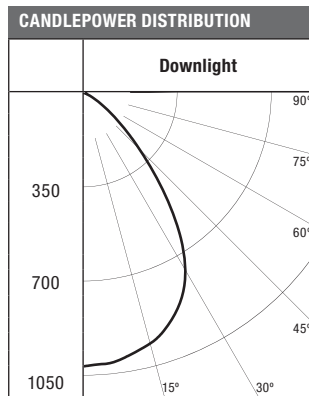
**EXAMPLE: LD6A15D010TE ERW6A15835 6LW1LI=6"** LED Wide Reflector Lens, 1500 Lumen 3,500 K Color with Universal 120 - 277V, 0 - 10 Driver

Housing	Lumens <sup>1</sup>	Driver	Options	Power Module	CRI	Color
<b>LD6A</b> =6" Aperture <b>LD6ACP</b> =6" Aperture, Chicago Plenum  <b>10</b> =1000 Lumens <b>15</b> =1500 Lumens <b>20</b> =2000 Lumens <b>30</b> =3000 Lumens	<b>1000, 1500, 2000 and 3000 Lumen</b> <b>D010TE</b> =120-277V 0-10V 10% Dimming or Trailing Edge 120V Dimming <b>D5LT</b> =Fifth Light® (DALI) Dimming 1-100% <b>DE010</b> =1 to 100% Dimming, 120-277V 50/60Hz, 0-10V <b>DL3</b> =1 to 100% Dimming, 120-277V Lutron® Hi-Lume, Ecosystem or 3 Wire <b>DLT</b> =1 to 100% Dimming, 120V Lutron® Hi-Lume Forward Phase Dimming <b>DMX</b> =DMX Dimming 1-100%  <b>1000, 1500 and 2000 Lumen</b> <b>D010TR</b> =120-277V 0-10V 10% Dimming or Leading Edge 120V Dimming	<b>EMBOD</b> =Bodine® Emergency Module with Remote Test Switch <sup>3,4</sup>	<b>ERW6A10</b> =6", 1000 Lumen Module for Wide Beam Reflector <b>ERW6A15</b> =6", 1500 Lumen Module for Wide Beam Reflector <b>ERW6A20</b> =6", 2000 Lumen Module for Wide Beam Reflector <b>ERW6A30</b> =6", 3000 Lumen Module for Wide Beam Reflector	<b>8</b> =80 CRI <b>9</b> =90 CRI	<b>27</b> =2700° K <b>30</b> =3000° K <b>35</b> =3500° K <b>40</b> =4000° K <b>27CP</b> =2700° K, Chicago Plenum Reflector <b>30CP</b> =3000° K, Chicago Plenum Reflector <b>35CP</b> =3500° K, Chicago Plenum Reflector <b>40CP</b> =4000° K, Chicago Plenum Reflector	

Reflector	Finish	Options	Accessories
<b>6LW0</b> =6" Wide Beam Reflector, Polymer Trim Ring <b>6LW1</b> =6" Wide Beam Reflector, Self-flanged	<b>LI</b> =Specular Clear <b>H</b> =Semi-Specular Clear <b>WMH</b> =Warm Haze <b>G</b> =Specular Gold <b>WH</b> =Wheat <b>WHH</b> =Wheat Haze <b>GP</b> =Graphite <b>GPH</b> =Graphite Haze  <b>B</b> =Specular Black <b>W</b> =Gloss White  <b>6LW0 Only</b> <b>BB</b> =Black Baffle <b>WB</b> =White Baffle	<b>Self-flanged Only</b> <b>WF</b> =White Painted Flange	<b>HB26</b> =C-channel Bar Hanger, 26" Long, Pair <b>HB50</b> =C-channel Bar Hanger, 50" Long, Pair <b>RMB22</b> =Wood Joist Bar Hanger, 22" Long, Pair <b>H347</b> =347 to 120V Step Down Transformer, 75VA <b>H347200</b> =347 to 120V Step Down Transformer, 200VA Housings, Specify Slope  <b>HSA6</b> =Slope Adapter for 6" Aperture Housings, Specify Slope <b>TRM6</b> =Metal Trim Ring, Specify Color <sup>2</sup> <b>TRR6</b> =Rimless Trim Ring <sup>2</sup> <b>DT6</b> =Deco Trim <sup>2</sup> <b>LGSKT6IP66</b> =IP66 Gasket Kit

- Notes:** 1 Nominal delivered Lumens will vary depending on selected color, driver and reflector finish.  
 2 Order trim with polymer trim ring (Consult specification sheet for color ordering information and options).  
 3 Not available with Chicago Plenum.  
 4 Not CSA approved.

**PHOTOMETRICS**



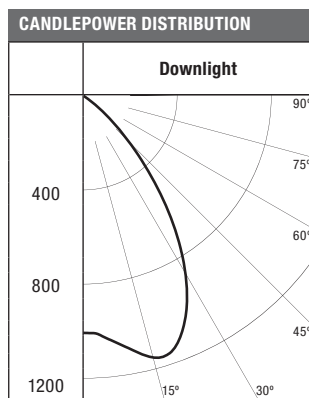
Test Number	P98323
ERW6A835	6LW1H
Lumens	1463
Efficacy	65.3 Lm/W
Watts	22.4
CCT	3500K
SC	1.13

Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
5'5"	33	6.0
7'	20	7.8
8'	16	9.0
9'	12	10.0
10'	10	11.2
12'	7	13.4

Degrees Vertical	Candela
0	1008
5	1002
15	956
25	845
35	602
45	281
55	98
65	19
75	5
85	0
90	0

Zone	Lumens	%Fixture
0-30	750	51.3
0-40	1122	76.7
0-60	1434	98
0-90	1463	100
90-180	0	0
0-180	1463	100

Average Candella Degrees	Average 0° Luminance
45	25954
55	11090
65	2964
75	1210
85	0



Test Number	P97443
ERW6A835	6LW1LI
Lumens	1552
Efficacy	69.2 Lm/W
Watts	22.4
CCT	3500K
SC	1.22

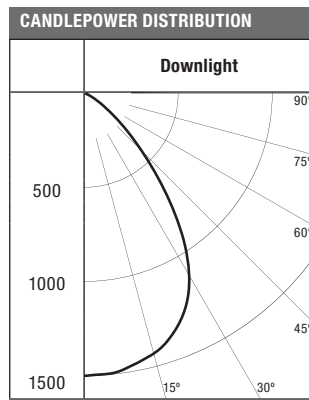
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
5'5"	34.0	6.5
7'	21.0	8.5
8'	16.0	9.5
9'	13.0	11.0
10'	10.5	12.0
12'	7.0	14.5

Degrees Vertical	Candela
0	1000
5	1021
15	1142
25	1022
35	663
45	267
55	39
65	2
75	0
85	0
90	0

Zone	Lumens	%Fixture
0-30	885	57
0-40	1294	83.4
0-60	1548	99.7
0-90	1552	100
90-180	0	0
0-180	1552	100

Average Candella Degrees	Average 0° Luminance
45	24598
55	4425
65	340
75	277
85	0

## PHOTOMETRICS



Test Number	P98615
LD6A20D010TE	ERW6A835 6LW1H
Lumens	2179
Efficacy	69.2 Lm/W
Watts	31.5
CCT	3500K
SC	1.13

**CONE OF LIGHT**

Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
5'5"	49	6.0
7'	30	7.8
8'	23	9.0
9'	18	10.0
10'	14	11.2
12'	10	13.4

**CANDELA TABLE**

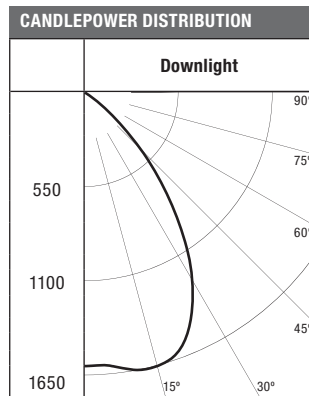
Degrees Vertical	Candela
0	1491
5	1486
15	1421
25	1258
35	891
45	424
55	147
65	30
75	6
85	1
90	0

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Fixture
0-30	1114	51.1
0-40	1664	76.4
0-60	2134	98.0
0-90	2179	100
90-180	0	0
0-180	2179	100

**LUMINANCE**

Average Candella Degrees	Average 0° Luminance
45	39074
55	16709
65	4662
75	1638
85	823



Test Number	P97715
LD6A20D010TE	ERW6A835 6LW1LI
Lumens	2349
Efficacy	74.6 Lm/W
Watts	31.5
CCT	3500K
SC	1.17

**CONE OF LIGHT**

Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
5'5"	52	6.4
7'	32	8.0
8'	24	9.2
9'	19	10.4
10'	15	11.6
12'	11	14.0

**CANDELA TABLE**

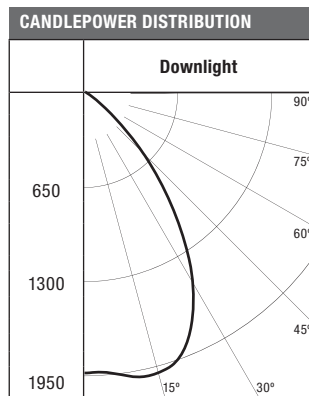
Degrees Vertical	Candela
0	1587
5	1588
15	1641
25	1458
35	989
45	453
55	93
65	5
75	2
85	0
90	0

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Fixture
0-30	1280	54.5
0-40	1893	80.6
0-60	2337	99.5
0-90	2349	100
90-180	0	0
0-180	2349	100

**LUMINANCE**

Average Candella Degrees	Average 0° Luminance
45	35128
55	8927
65	687
75	381
85	0



Test Number	P97731
LD6A30DE010	ERW6A30835 6LW1LI
Lumens	2838 Lm
Efficacy	65 Lm/W
Watts	43.6 W
CCT	3500K
SC	1.1

**CONE OF LIGHT**

Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
7'	39	8
8'	30	9
9'	24	10.5
10'	19	11.5
12'	13	14
15'	8.5	17.5

**CANDELA TABLE**

Degrees Vertical	Candela
0	1917
5	1919
15	1983
25	1761
35	1195
45	547
55	113
65	6
75	2
85	0
90	0

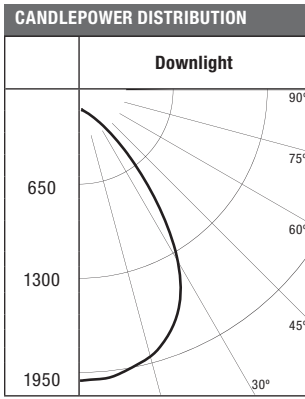
**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Fixture
0-30	1546	54.5
0-40	2287	80.5
0-60	2824	99.5
0-90	2838	100
90-180	0	0
0-180	2838	100

**LUMINANCE**

Average Candella Degrees	Average 0° Luminance
45	42439
55	10791
65	830
75	445
85	0

**PHOTOMETRICS**



Test Number	P98631
LD6A30DE010 ERW6A30835 6LW1H	
Lumens	2633 Lm
Efficacy	60.3 Lm/W
Watts	43.6 W
CCT	3500K
SC	1.1

CONE OF LIGHT		
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
7'	37	9
8'	28	9
9'	22	10
10'	18	10
12'	12.5	13.5
15'	8	17

CANDELA TABLE	
Degrees Vertical	Candela
0	1802
5	1795
15	1717
25	1520
35	1077
45	512
55	178
65	37
75	8
85	1
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	%Fixture
0-30	1347	51
0-40	2011	76.5
0-60	2579	98
0-90	2633	100
90-180	0	0
0-180	2633	100

LUMINANCE	
Average Candella Degrees	Average 0° Luminance
45	47212
55	20189
65	5650
75	1966
85	973

EMBOD MULTIPLIER
900/1000 Lumen= .50
1300/1500 Lumen= .31
1800/2000 Lumen= .22
2800/3000 Lumen= .16

## DESCRIPTION

6 inch LED recessed wall wash specially designed for LED technology. Two-stage reflector system combined with a Gradient Kicker, produces high levels of uniform vertical illumination on the wall with no flashback or glare. Color temperatures of 2700K, 3000K, 3500K, 4000K.

Catalog #	LD6A10DL3 ERM6A10835 6LM111LI	Type	R4
Project		Date	
Comments			
Prepared by			

## SPECIFICATION FEATURES

### Lower Wall Wash Reflector

Self-flanged, spun .050" thick aluminum lower reflector in combination with a lensed upper optical chamber provides superior lumen output with minimal source brightness. Available in all Portfolio Alzak® finishes.

### Trim Retention

Lower reflector is retained with two torsion springs holding the flange tightly to the finished ceiling surface.

### Plaster Frame / Collar

New Construction Housing: Die cast aluminum 1-1/2" deep collar accommodates ceiling materials up to 2".

### Universal Mounting Bracket

Accepts 1/2" EMT, C channel and bar hangers and adjusts 5" vertically from above and below the ceiling.

### Junction Box

(4) 1/2" and (2) 3/4" trade size pry outs positioned to allow straight conduit runs. Listed for (8) #12 AWG (four in, four out) 90°C

conductors and feed thru branch wiring.

### Thermal

Extruded aluminum heat sink conducts heat away from the LED module for optimal performance and long life.

### LED

LED system contains a plurality of high brightness white LED's combined with a high reflectance upper reflector and convex transitional lens producing even distribution with no pixilation. Rated for 50,000 hours at 70% lumen maintenance. Auto resetting, thermally protected, LED's are turned off when safe operating temperatures are exceeded. Color variation within 3-step MacAdam ellipses. Flexible disconnect allows for tool-less replacement of LED engine from below ceiling. Available in 80 or 90 CRI.

### Driver

Combination 120-277V 0-10V or 120V trailing edge phase cut driver provides flicker free dimming

from 100% to 10%. Optional 1% 0-10V, Fifth Light, DMX or Lutron® Ecosystem. Driver can be serviced from above or through the aperture.

### Environmental

Fixture should not be operated in ambient temperatures above 40° C.

### Code Compliance

Thermally protected and cULus listed for protected damp locations. Optional City of Chicago environmental air (CCEA) marking for plenum applications. EMI/RFI emissions per FCC 47CFR Part 18 Class B consumer limits. Non-IC rated - Insulation must be kept 3" from top and sides of housing. RoHS Compliant. Title 24 Compliant with designated trims. Photometric testing completed in accordance with IES LM 79 standards. LED life testing completed in accordance with LM 80 standards.

### Warranty

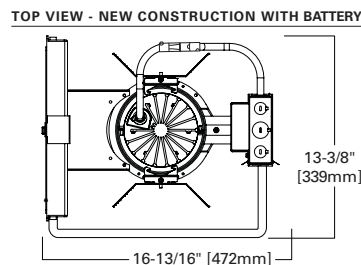
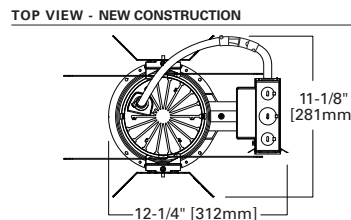
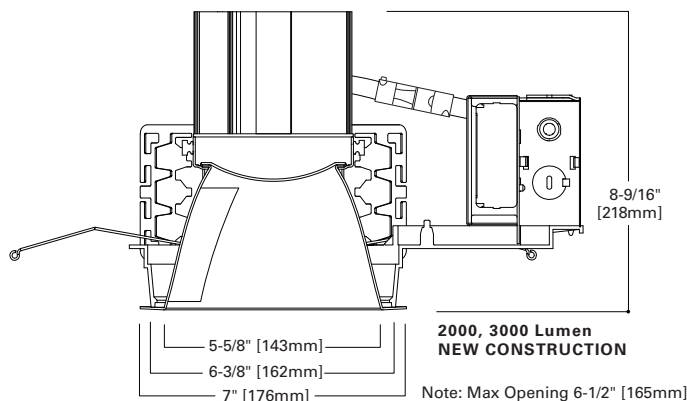
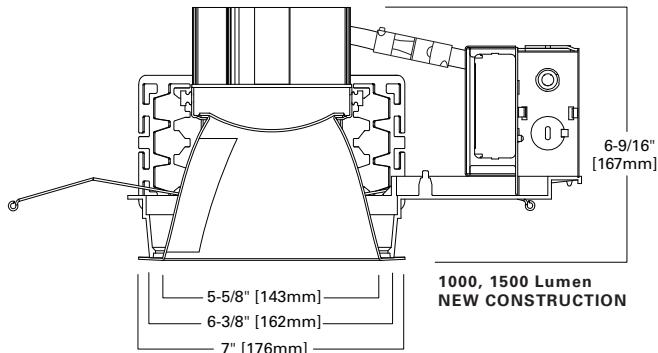
5 year warranty.



## LD6A10 LD6A15 LD6A20 LD6A30 6LM111

1000, 1500 Lumen LED  
2000, 3000 Lumen LED

6-Inch  
Medium Beam Wall Wash  
New Construction



Cooper Lighting  
by EATON

Specifications and dimensions subject to change without notice.  
Consult your representative for additional options and finishes.



Refer to ENERGY STAR® Qualified Products List. Can be used to comply with California Title 24 High Efficacy requirements. Certified to California Title 20 Appliance Efficiency Database.



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technology

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2014-10-20 12:48:42

**ORDERING INFORMATION**

**EXAMPLE: LD6A20D010TE ERM6A20835 6LM111LI=6"** LED Medium Beam Wall Wash, 2000 Lumen 3,500 K Color with Universal 120 - 277V, 0 - 10 Driver

Housing	Lumens <sup>1</sup>	Driver	Options	Power Module	CRI	Color
<b>LD6A=6"</b> Aperture <b>LD6ACP=6"</b> Aperture, Chicago Plenum  <b>10=1000</b> Lumens <b>15=1500</b> Lumens <b>20=2000</b> Lumens <b>30=3000</b> Lumens	<b>1000, 1500, 2000 and 3000 Lumen</b> <b>D010TE=120-277V 0-10V 10%</b> Dimming or Trailing Edge 120V Dimming <b>D5LT=</b> Fifth Light® (DALI) Dimming 1-100% <b>DE010=</b> 1 to 100% Dimming, 120-277V 50/60Hz, 0-10V <b>DL3=</b> 1 to 100% Dimming, 120-277V Lutron® Hi-Lume, Ecosystem or 3 Wire <b>DLT=</b> 1 to 100% Dimming, 120V Lutron® Hi-Lume Forward Phase Dimming <b>DMX=</b> DMX Dimming 1-100%  <b>1000, 1500 and 2000 Lumen</b> <b>D010TR=120-277V 0-10V 10%</b> Dimming or Leading Edge 120V Dimming	<b>EMBOB=</b> Bodine® Emergency Module with Remote Test Switch <sup>3</sup>	<b>ERM6A10=6"</b> , 1000 Lumen Module for Medium Beam Reflector <b>ERM6A15=6"</b> , 1500 Lumen Module for Medium Beam Reflector <b>ERM6A20=6"</b> , 2000 Lumen Module for Medium Beam Reflector <b>ERM6A30=6"</b> , 3000 Lumen Module for Medium Beam Reflector	<b>8=80</b> CRI <b>9=90</b> CRI	<b>27=2700°</b> K <b>30=3000°</b> K <b>35=3500°</b> K <b>40=4000°</b> K <b>27CP=2700°</b> K, Chicago Plenum <b>30CP=3000°</b> K, Chicago Plenum <b>35CP=3500°</b> K, Chicago Plenum <b>40CP=4000°</b> K, Chicago Plenum	

Reflector	Finish	Options	Accessories
<b>6LM111=</b> 6" Medium Reflector, Single Wall Wash, Self-flanged <b>6LM121=</b> 6" Medium Reflector, Double Wall Wash, Self-flanged <b>6LM110=</b> 6" Medium Reflector, Single Wall Wash, Polymer Trim Ring <b>6LM120=</b> 6" Medium Reflector, Double Wall Wash, Polymer Trim Ring	<b>LI=</b> Specular Clear <b>H=</b> Semi-Specular Clear <b>WMH=</b> Warm Haze <b>G=</b> Specular Gold <b>WH=</b> Wheat <b>WHH=</b> Wheat Haze <b>GP=</b> Graphite <b>GPH=</b> Graphite Haze  <b>B=</b> Specular Black <b>W=</b> Gloss White	<b>Self-flanged Only</b> <b>WF=</b> White Painted Flange	<b>HB26=</b> C-channel Bar Hanger, 26" Long, Pair <b>HB50=</b> C-channel Bar Hanger, 50" Long, Pair <b>RMB22=</b> Wood Joist Bar Hanger, 22" Long, Pair <b>H347=</b> 347 to 120V Step Down Transformer, 75VA  <b>H347200=</b> 347 to 120V Step Down Transformer, 200VA Housings, Specify Slope <b>TRM6=</b> Metal Trim Ring, Specify Color <sup>2</sup> <b>TRR6=</b> Rimless Trim Ring <sup>2</sup> <b>DT6=</b> Deco Trim <sup>2</sup> <b>LGSKT6IP66=</b> IP66 Gasket Kit

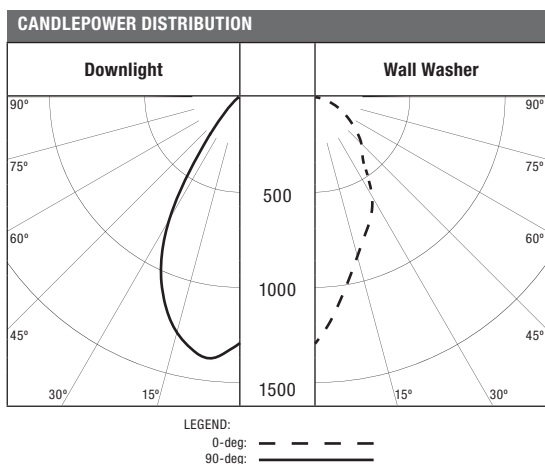
- Notes:**
- 1 Nominal Lumens will vary depending on selected color, driver and reflector finish.
  - 2 Order trim with polymer trim ring (Consult specification sheet for color ordering information and options).
  - 3 Not available with Chicago Plenum.

**ENERGY**

ENERGY DATA			
Sound Rating: Class A standards (Values at non-dimming line voltage)			
Minimum Starting Temperature: -30°C (-22°F)			
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)			
Input Voltage: UNV (120V - 277V)			
Power Factor: >0.90 (at nominal input 120-277 VAC & 100% of Rated Output Power)			
3000 Lumen D010TE		2000 Lumen D010TE	
Input Power: 43.6W	THD: <17%	Input Power: 31.5W	THD: <20%
120V Input Current: .37A	277V Input Current: .16A	120V Input Current: .27A	277V Input Current: .12A
Maximum Non-IC Ambient Continuous		Maximum Non-IC Ambient Continuous	
Input Frequency: 50/60Hz		Input Frequency: 50/60Hz	
1500 Lumen D010TE		1000 Lumen D010TE	
Input Power: 22.4W	THD: <20%	Input Power: 14.1W	THD: <20%
120V Input Current: .12A	277V Input Current: .09A	120V Input Current: .12A	277V Input Current: .06A
Maximum Non-IC Ambient Continuous		Maximum Non-IC Ambient Continuous	
Input Frequency: 50-60Hz		Input Frequency: 50-60Hz	

Lumens	120V		277V	
	Inrush (A)	Duration (ms)	Inrush (A)	Duration (ms)
900/1000	0.486	0.4	0.848	0.182
1300/1500	0.717	1.58	0.531	1.24
1800/2000	0.832	0.405	1.25	0.788
2800/3000	1.09	0.3	1.23	0.294

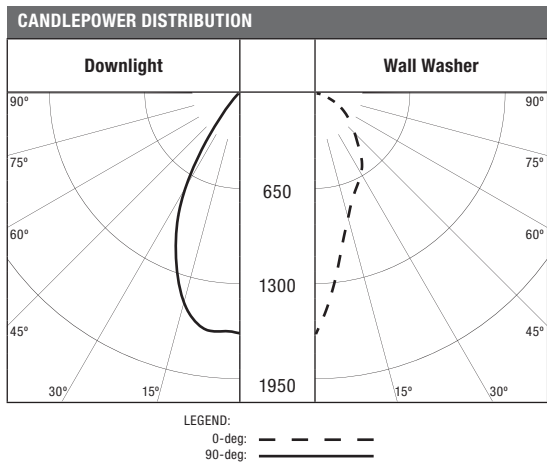
**PHOTOMETRICS**



Test Number	P98259
Platform	LD6A15D010TE
Element	ERM6A835 6LM111H
Lumens	1386
Efficacy	61.8 Lm/W
Watts	21.8
CCT	3500K

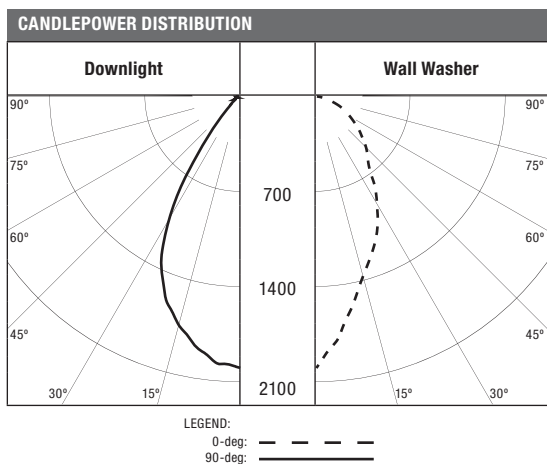
DD	3' FROM WALL (Distance From Fixture Along Wall)				2.5' FROM WALL (Spacing Between Fixtures)			3' FROM WALL (Spacing Between Fixtures)								
	●	1'	2'	3'	●	●	●	●	2'	●	●	3'	●			
1'	7.2	5.2	2.5	1.0	18.1	19.5	18.1	15.5	12.9	15.5	9.7	10.5	9.7	8.2	7.3	8.2
2'	13.9	11.9	7.5	4.0	29.8	33.4	29.8	24.8	25.6	24.8	21.4	23.9	21.4	18.0	19.4	18.0
3'	13.4	11.9	8.2	4.7	25.4	28.7	25.4	20.7	24.0	20.7	21.6	23.9	21.6	18.1	20.5	18.1
4'	10.1	9.4	7.1	4.6	20.5	22.6	20.5	17.1	19.1	17.1	17.3	18.7	17.3	14.7	16.8	14.7
5'	8.6	7.9	6.0	4.0	16.1	17.5	16.1	13.4	15.8	13.4	14.6	15.8	14.6	12.6	14.1	12.6
6'	6.6	6.2	5.2	3.7	11.9	12.6	11.9	10.3	11.8	10.3	11.8	12.5	11.8	10.3	11.6	10.3
7'	4.9	4.7	4.2	3.3	8.7	9.0	8.7	7.9	8.7	7.9	9.0	9.4	9.0	8.2	9.0	8.2
8'	3.6	3.5	3.2	2.8	6.5	6.7	6.5	6.1	6.4	6.1	6.9	7.1	6.9	6.4	6.9	6.4
9'	2.8	2.7	2.5	2.3	5.0	5.1	5.0	4.7	4.9	4.7	5.3	5.4	5.3	5.0	5.3	5.0
10'	2.2	2.1	2.0	1.8	3.9	3.9	3.9	3.7	3.8	3.7	4.2	4.3	4.2	4.0	4.2	4.0

PHOTOMETRICS



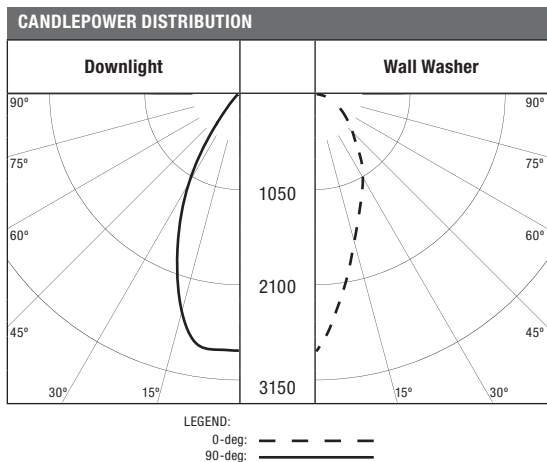
Test Number	P97411
Platform	LD6A15D010TE
Element	ERM6A835 6LM111LI
Lumens	1479
Efficacy	66.0 Lm/W
Watts	21.8
CCT	3500K

SINGLE UNIT FOOTCANDLES				MULTIPLE UNIT FOOTCANDLES												
3' FROM WALL (Distance From Fixture Along Wall)				2.5' FROM WALL (Spacing Between Fixtures)						3' FROM WALL (Spacing Between Fixtures)						
DD	●	1'	2'	3'	●	2'	●	3'	●	●	●	●	2'	●	3'	●
1'	5.8	4.9	2.4	0.9	16.5	19.3	16.5	13.9	12.9	13.9	8.3	9.8	8.3	6.8	7.3	6.8
2'	15.0	12.4	7.5	4.0	31.3	35.0	31.3	26.2	26.4	26.2	22.4	24.8	22.4	19.0	19.9	19.0
3'	14.3	12.7	8.5	4.8	27.9	31.1	27.9	23.1	25.1	23.1	22.8	25.4	22.8	19.1	21.5	19.1
4'	11.9	10.7	7.5	4.5	22.1	25.1	22.1	18.1	21.2	18.1	19.4	21.3	19.4	16.4	18.4	16.4
5'	9.1	8.6	6.6	4.1	16.6	17.9	16.6	13.3	16.7	13.3	15.7	17.3	15.7	13.2	15.7	13.2
6'	6.5	6.3	5.6	3.9	12.0	12.5	12.0	10.3	12.1	10.3	12.1	12.6	12.1	10.4	12.1	10.4
7'	4.7	4.7	4.3	3.5	8.7	9.0	8.7	7.9	8.8	7.9	9.0	9.3	9.0	8.2	9.1	8.2
8'	3.5	3.5	3.3	2.9	6.6	6.7	6.6	6.2	6.6	6.2	6.9	7.0	6.9	6.4	6.9	6.4
9'	2.7	2.7	2.6	2.4	5.1	5.2	5.1	4.8	5.2	4.8	5.3	5.4	5.3	5.1	5.4	5.1
10'	2.1	2.1	2.1	2.0	4.0	4.1	4.0	3.9	4.1	3.9	4.2	4.3	4.2	4.1	4.3	4.1



Test Number	P98559
Platform	LD6A20D010TE
Element	ERM6A835 6LM111H
Lumens	2160
CCT	3500K

SINGLE UNIT FOOTCANDLES				MULTIPLE UNIT FOOTCANDLES												
3' FROM WALL (Distance From Fixture Along Wall)				2.5' FROM WALL (Spacing Between Fixtures)						3' FROM WALL (Spacing Between Fixtures)						
DD	●	1'	2'	3'	2'	3'	2'	3'	2'	3'	2'	3'	2'	3'	2'	3'
1'	11	9	5	1	129	32	29	25	23	25	16	18	16	13	13	13
2'	21	17	11	5	44	49	44	36	37	36	32	35	32	26	28	26
3'	19	17	12	6	38	43	38	31	35	31	32	34	32	26	30	26
4'	15	14	10	6	31	34	31	26	29	26	26	28	26	21	25	21
5'	12	12	9	6	24	26	24	20	23	20	22	24	22	18	21	18
6'	9	9	8	5	18	19	18	15	18	15	17	18	17	15	17	15
7'	7	7	6	5	13	14	13	12	13	12	14	14	14	12	13	12
8'	5	5	5	4	10	10	10	9	10	9	10	11	10	9	10	9
9'	4	4	4	3	7	8	7	7	7	7	8	8	8	7	8	7
10'	3	3	3	2	6	6	6	5	6	5	6	6	6	6	6	6

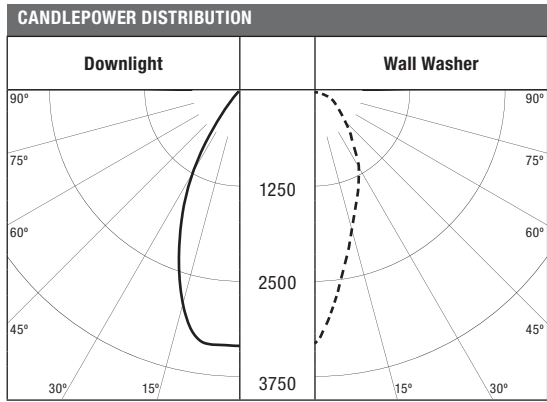


Test Number	P97659
Platform	LD6A20D010TE
Element	ERM6A835 6LM111LI
Lumens	2330
CCT	3500K

SINGLE UNIT FOOTCANDLES				MULTIPLE UNIT FOOTCANDLES												
3' FROM WALL (Distance From Fixture Along Wall)				2.5' FROM WALL (Spacing Between Fixtures)						3' FROM WALL (Spacing Between Fixtures)						
DD	●	1'	2'	3'	2'	3'	2'	3'	2'	3'	2'	3'	2'	3'	2'	3'
1'	11	8	4	1	27	29	27	23	19	23	15	16	15	12	11	12
2'	21	18	11	5	46	51	46	38	39	38	33	36	33	27	29	27
3'	21	18	12	6	41	46	41	34	37	34	33	37	33	28	31	28
4'	18	16	11	6	35	39	35	28	33	28	29	32	29	24	27	24
5'	15	13	10	6	27	29	27	22	27	22	25	27	25	21	24	21
6'	11	10	9	6	20	21	20	17	20	17	20	21	20	17	19	17
7'	8	8	7	5	15	16	15	13	15	13	15	16	15	14	15	14
8'	6	6	5	4	11	12	11	10	11	10	12	12	12	11	12	11
9'	5	5	4	3	9	9	9	8	9	8	9	9	9	9	9	9
10'	4	4	3	3	7	7	7	7	7	7	7	8	7	7	7	7



**PHOTOMETRICS**



Test Number	P97675
LD6A30DE010 ERM6A30835 6LM111LI	
Lumens	2795 Lm
Watts	39.6 W
CCT	3500K

SINGLE UNIT FOOTCANDLES				MULTIPLE UNIT FOOTCANDLES												
DD	3' FROM WALL (Distance From Fixture Along Wall)			2' FROM WALL (Spacing Between Fixtures)						3' FROM WALL (Spacing Between Fixtures)						
	1'	2'	3'	2'		3'		2'		3'						
1'	13	9.5	5	2	61	63.9	61.7	53	39	53	18	19	18	15	14	15
2'	26	22	13	7	76.5	84.5	76.5	64	58	64	40	44	39.9	33	36	33
3'	26	22	15	8	62	71	62	51.5	51	51.5	40.5	44	40.5	34	37.5	33.9
4'	22	19.5	13	7	46	53.5	46	36.5	45	36.5	35.5	39	35.5	29	33	29
5'	18	16.5	12	7	34	37	34	27	33	27	30.5	33	30.5	25	29	25
6'	13.5	12	10	7	24	26	24	21	24	21	24	25.5	24	21	24	21
7'	10	9	8.5	6	18	19	18	16	18	16	18	19.5	18	17	18.5	17
8'	8	7.5	7	5.5	13.5	14	13.5	12	13.5	12	14.5	15	14.5	13.5	14.5	13.5
9'	6	6	5.5	4	10.5	11	10.5	9.5	10.5	9.5	11.6	11.9	11.5	11	11.5	11
10'	5	5	4.5	4	8	8.5	8	7	8	7	9	9.5	9	9	9	9

EMBOD MULTIPLIER	
900/1000 Lumen=	.50
1300/1500 Lumen=	.31
1800/2000 Lumen=	.22
2800/3000 Lumen=	.16

CCT Multiplication Factors		CCT [K]	Multiplier from 3500K	80 -> 90 CRI
80 CRI	2000 Lumen	2700	0.93	
		3000	0.99	
		3500	1.00	
		4000	1.01	
90 CRI	2000 Lumen	2700	0.88	0.79
		3000	0.94	0.80
		3500	1.00	0.84
		4000	1.03	0.85

## DESCRIPTION

8-inch LED recessed medium beam downlight with 50° cut off specially designed for LED technology. Two-stage reflector system produces smooth distribution with excellent light control and low aperture brightness. Offered with 3000-10,000 lumens with color temperatures of 2700K, 3000K, 3500K, 4000K available in 80 or 90 CRI.

<b>Catalog #</b>	LD8A502DL3 ER8A50835 8LMOLI	<b>Type</b>
<b>Project</b>		R7
<b>Comments</b>		<b>Date</b>
<b>Prepared by</b>		

## SPECIFICATION FEATURES

### Lower Shielding Reflector

Self-flanged, spun .060" thick aluminum lower reflector in combination with a lensed upper optical chamber provides superior lumen output with minimal source brightness. Available in all Portfolio Alzak® finishes.

### Trim Retention

Lower reflector is retained with two torsion springs holding the flange tightly to the finished ceiling surface.

### Plaster Frame / Collar

Die cast aluminum 1-1/2" deep collar accommodates ceiling materials up to 2".

### Universal Mounting Bracket

Accepts 1/2" EMT, C channel and bar hangers and adjusts 5" vertically from above and below the ceiling.

### Junction Box

(4) 1/2" and (2) 3/4" trade size pry outs positioned to allow straight conduit runs. Listed for (8) #12

AWG (four in, four out) 90°C conductors and feed thru branch wiring.

### Thermal

Forged aluminum heat sink conducts heat away from the LED module for improved performance and longer life.

### LED

LED system contains a plurality of high brightness white LED's combined with a high reflectance upper reflector and convex transitional lens producing even distribution with no pixilation. Rated for 50,000 hours at 70% lumen maintenance. Color variation within 3-step MacAdam ellipses. Flexible disconnect allows for tool-less replacement of LED engine from below ceiling. Available in 80 or 90 CRI.

### Driver

Combination 0-10V/trailing edge driver provides flicker free dimming from 100% to 10%. Optional 1% 0-10V, Fifth Light,

DMX or Lutron® Ecosystem. Driver can be serviced from above or through the aperture.

### Code Compliance

Thermally protected and cULus listed for protected wet locations. cCSAus certified. Optional City of Chicago environmental air (CCEA) marking for plenum applications. EMI/ RFI emissions per FCC 47CFR Part 18 Class B consumer limits. Non-IC rated - Insulation must be kept 3" from top and sides of housing. RoHS Compliant. Photometric testing completed in accordance with IES LM 79 standards. LED life testing completed in accordance with LM 80 standards.

### Warranty

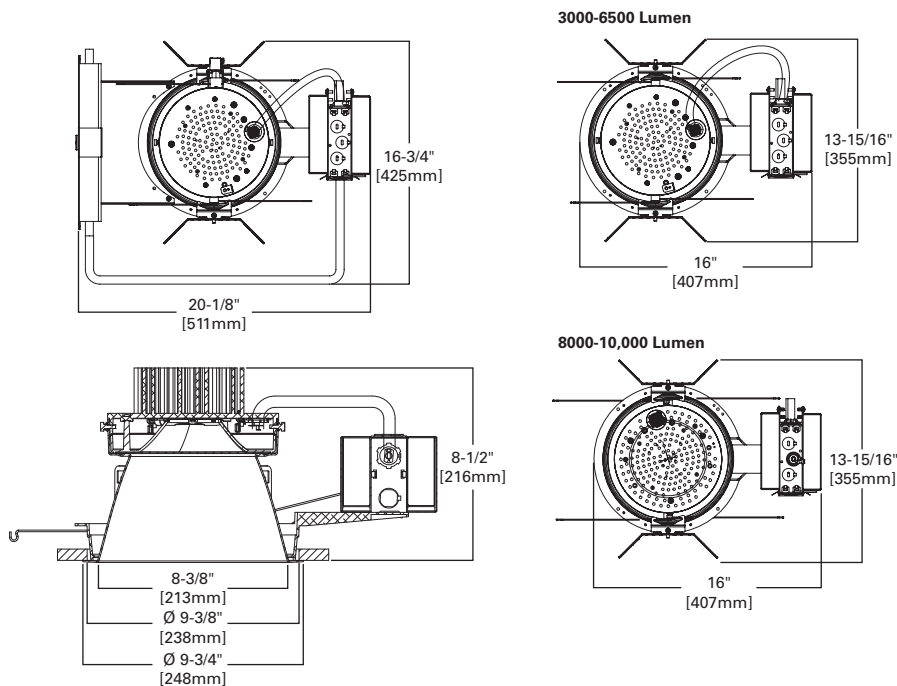
5 year warranty.



**LD8A  
ER8A  
8LM**

**3000-10,000  
Lumen LED**

**8-Inch Medium Downlight  
New Construction**



Refer to ENERGY STAR® Qualified Products List. Can be used to comply with California Title 24 High Efficacy requirements.



**ORDERING INFORMATION**

**EXAMPLE: LD8A501DE010 ER8A50835 8LW111LI= 8" LED Wide Beam Reflector, 5000 Lumen, 3,500 K Color with Universal 120 - 277V, 0 - 10 Driver**

Housing	Lumens <sup>1</sup>	Voltage	Driver	Options	Power Module	Lumens	CRI	Color
LD8A=8" Aperture LD8ACP=8" Aperture, Chicago Plenum	30=3000 Lumens 40=4000 Lumens 50=5000 Lumens 60=6000 Lumens 65=6500 Lumens 80=8000 Lumens 90=9000 Lumens 100=10000 Lumens	1=120V 2=277V	<b>3000, 4000, 5000, 6000, 8000, 9000 AND 10000 LUMEN</b> D010TE=0-10V 10% Dimming or Trailing Edge Dimming <b>3000, 4000, 5000, 6000 AND 8000 LUMEN</b> D5LT=Fifth Light® DALI 1% Dimming DMX=DMX Dimming DE010=0-10V 1% Dimming <b>3000, 4000, 5000 AND 6000 LUMEN</b> DL3=1% Lutron® Hi-Lume 3-Wire or Ecosystem D010TR=0-10V 10% Dimming or Leading Edge <b>6500 LUMEN</b> D010=0-10V 10% Dimming DE010=0-10V 1% Dimming	EMBOD=Bodine® Emergency Module with Remote Test Switch IEMBOD=Bodine® Emergency Module with Integral Test Switch <sup>2</sup>	ER8A=8" Module	30=3000 Lumens 40=4000 Lumens 50=5000 Lumens 60=6000 Lumens 65=6500 Lumens 80=8000 Lumens 90=9000 Lumens 100=10000 Lumens	8=80 CRI 9=90 CRI	27=2700° K 30=3000° K 35=3500° K 40=4000° K

Reflector	Finish	Options	Accessories
8LM0=8" Medium Reflector, Polymer Trim Ring 8LM1=8" Medium Reflector, Self-flanged 8LM0E=8" Medium Reflector, Polymer Trim Ring for use with IEM Integral Emergency option 8LM1E=8" Medium Reflector, Self-flanged Trim Ring for use with IEM Integral Emergency option	LI=Specular Clear H=Semi-Specular Clear WMH=Warm Haze G=Specular Gold WH=Wheat WHH=Wheat Haze GP=Graphite GPH=Graphite Haze	B=Specular Black W=Gloss White  <b>8LM0 Only</b> BB=Black Baffle WB=White Baffle	<b>Self-flanged Only</b> WF=White Painted Flange  HB26=C-channel Bar Hanger, 26" Long, Pair HB50=C-channel Bar Hanger, 50" Long, Pair RMB22=Wood Joist Bar Hanger, 22" Long, Pair H347=347 to 120V Step Down Transformer, 75VA

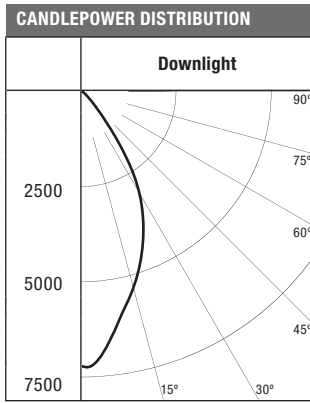
- Notes:**
1. Nominal Lumens will vary depending on selected color, driver and reflector finish.
  2. Not available with Chicago Plenum.
  3. Not CSA approved.
  4. Trailing edge and leading edge 120V only.

**ENERGY DATA**

ENERGY DATA	
Sound Rating: Class A standards	
(Values at non-dimming line voltage)	
Minimum Starting Temperature: -20°C (-4°F)	
Power Factor: >0.90	
3000 Lumen	
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)	
Input Power: 42W	THD: <20%
120V Input Current: .35A	277V Input Current: .16A
Input Frequency: 50-60Hz	
4000 Lumen D010TE	
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)	
Input Power: 58W	THD: <20%
120V Input Current: .48A	277V Input Current: .21A
Input Frequency: 50-60Hz	
5000 Lumen D010TE	
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)	
Input Power: 62W	THD: <17%
120V Input Current: .52A	277V Input Current: .22A
Input Frequency: 50-60Hz	
6000 Lumen D010TE	
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)	
Input Power: 77W	THD: <17%
120V Input Current: .64A	277V Input Current: .28A
Input Frequency: 50-60Hz	

ENERGY DATA	
Sound Rating: Class A standards	
(Values at non-dimming line voltage)	
Minimum Starting Temperature: -20°C (-4°F)	
Power Factor: >0.90	
6500 Lumen D010	
Input Power: 84W	THD: <17%
120V Input Current: .70A	277V Input Current: .30A
Input Frequency: 50-60Hz	
8000 Lumen D010TE	
120V Input Power: 96W	277V Input Power: 96W
120V Input Current: .79A	277V Input Current: .36A
THDi 120V: <13%	THDi 277V: <20%
Input Frequency: 50-60Hz	
9000 Lumen D010TE	
120V Input Power: 108W	277V Input Power: 107W
120V Input Current: .89A	277V Input Current: .39A
THDi 120V: <13%	THDi 277V: <20%
Input Frequency: 50-60Hz	
10,000 Lumen D010TE	
120V Input Power: 126W	277V Input Power: 123W
120V Input Current: 1.05A	277V Input Current: .47A
THDi 120V: <13%	THDi 277V: <20%
Input Frequency: 50-60Hz	

PHOTOMETRICS



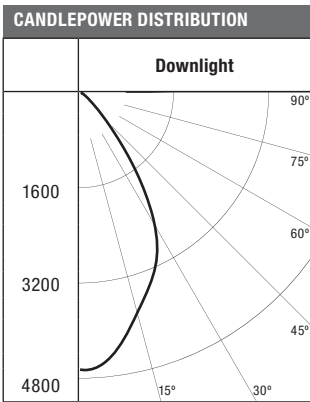
Test Number	P112343
LD8A50D010TE ER8A50835 8LMOLI	
Lumens	4962 Lm
Efficacy	80 Lm/W
CCT	3500K
SC	0.8

CONE OF LIGHT		
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
12.5'	42	10
15'	29	12
20'	16	16
24'	11	19
28'	8	22

CANDELA TABLE	
Degrees Vertical	Candela
0	6445
5	6573
15	5323
25	3488
35	1582
45	316
55	26
65	0
75	1
85	0
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	%Fixture
0-30	3598	72
0-40	4641	93
0-60	4952	99
0-90	4962	100
90-180	0	0
0-180	4962	100

LUMINANCE	
Average Candella Degrees	Average 0° Luminance
45	13773
55	1421
65	0
75	166
85	0



Test Number	P112599
LD8A50D010TE ER8A50835 8LMOH	
Lumens	4461 Lm
Efficacy	71.9 Lm/W
CCT	3500K
SC	1

CONE OF LIGHT		
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
12.5'	21	13
15'	15	16
20'	8	22
24'	6	26
28'	4	30

CANDELA TABLE	
Degrees Vertical	Candela
0	2977
5	3234
15	3611
25	3268
35	2011
45	822
55	173
65	19
75	0
85	0
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	%Fixture
0-30	2455	48
0-40	3741	74
0-60	4872	96
0-90	5035	100
90-180	0	0
0-180	5035	100

LUMINANCE	
Average Candella Degrees	Average 0° Luminance
45	35859
55	9275
65	1421
75	0
85	0

## DESCRIPTION

8-inch LED recessed wide wall wash specially designed for LED technology. Two-stage reflector system combined with a Gradient Kicker, produces high levels of uniform vertical illumination on the wall with minimal source brightness. Color temperatures of 2700K, 3000K, 3500K, 4000K.

Catalog #	LD8A302DL3 ER8A30835 8LW110LI	Type	R8
Project		Date	
Comments			
Prepared by			

## SPECIFICATION FEATURES

**Lower Wall Wash Reflector**  
Spun .060" thick aluminum lower reflector with gradient kicker in combination with a lensed upper optical chamber provides superior lumen output, high level vertical illumination with minimal source brightness. Available in all Portfolio Alzak® finishes.

**Trim Retention**  
Reflector is retained with two torsion springs holding the flange tightly to the finished ceiling surface.

**Plaster Frame / Collar**  
Die cast aluminum 1-1/2" deep collar accommodates ceiling materials up to 2".

**Universal Mounting Bracket**  
Accepts 1/2" EMT, C channel and bar hangers and adjusts 5" vertically from above and below the ceiling (new construction housing only).

**Junction Box**  
(4) 1/2" and (2) 3/4" trade size pry outs positioned to allow straight

conduit runs. Listed for (8) #12 AWG (four in, four out) 90°C conductors and feed thru branch wiring.

**Thermal**  
Forged aluminum heat sink conducts heat away from the LED module for improved performance and longer life.

**LED**  
LED system contains a plurality of high brightness white LED's combined with a high reflectance upper reflector and convex transitional lens producing even distribution with no pixilation. Rated for 50,000 hours at 70% lumen maintenance. Color variation within 3-step MacAdam ellipses. Flexible disconnect allows for tool-less replacement of LED engine from below ceiling. Available in 80 or 90 CRI.

**Driver**  
Combination 0-10V/trailing edge driver provides flicker free dimming from 100% to 10%. Optional 1% 0-10V, Fifth Light,

DMX or Lutron® Ecosystem. Driver can be serviced from above or through the aperture.

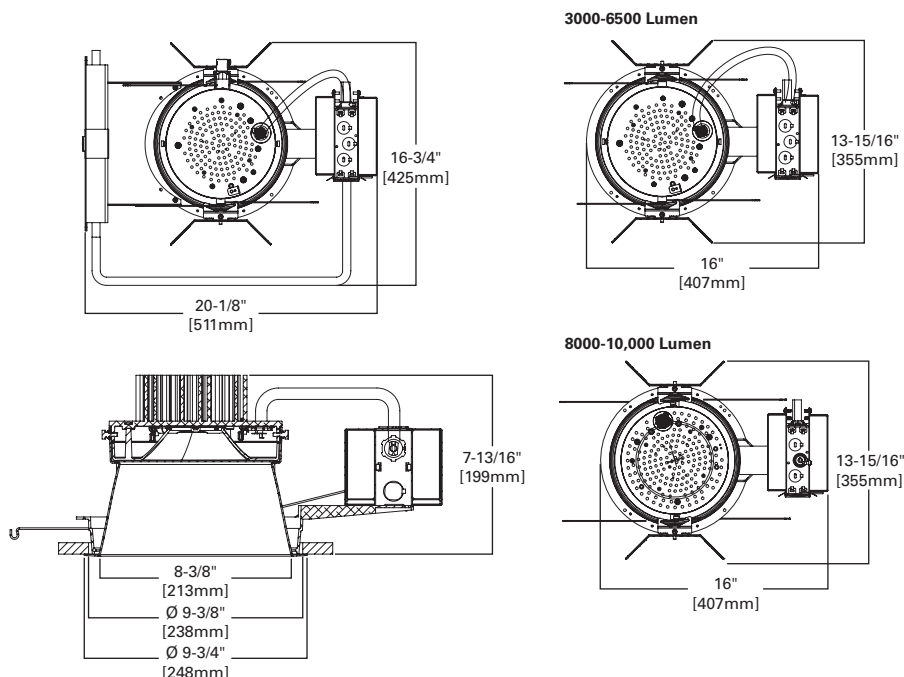
**Code Compliance**  
Thermally protected and cULus listed for protected damp locations. cCSAus certified. Optional City of Chicago environmental air (CCEA) marking for plenum applications. EMI/ RFI emissions per FCC 47CFR Part 18 Class B consumer limits. Non-IC rated - Insulation must be kept 3" from top and sides of housing. RoHS Compliant. Photometric testing completed in accordance with IES LM 79 standards. LED life testing completed in accordance with LM 80 standards. 8000 lumen and above are marked spacing and must follow spacing requirements.

**Warranty**  
5 year warranty.



**LD8A  
ER8A  
8LW111**  
3000-10,000  
Lumen LED

**8-Inch Wide Beam Wall Wash  
New Construction**



Refer to ENERGY STAR® Qualified Products List. Can be used to comply with California Title 24 High Efficacy requirements.



**ORDERING INFORMATION**

**EXAMPLE: LD8A501DE010 ER8A50835 8LW111LI= 8" LED Wide Beam Reflector Lens, 5000 Lumen, 3,500 K Color with Universal 120 - 277V, 0 - 10 Driver**

Housing	Lumens <sup>1</sup>	Voltage	Driver	Options	Power Module	Lumens	CRI	Color
LD8A=8" Aperture LD8ACP=8" Aperture, Chicago Plenum	30=3000 Lumens 40=4000 Lumens 50=5000 Lumens 60=6000 Lumens 65=6500 Lumens 80=8000 Lumens <sup>5</sup> 90=9000 Lumens <sup>5</sup> 100=10000 Lumens <sup>5</sup>	1=120V 2=277V	<b>3000, 4000, 5000, 6000, 8000, 9000 AND 10000 LUMEN</b> D010TE=0-10V 10% Dimming or Trailing Edge Dimming <b>3000, 4000, 5000, 6000 AND 8000 LUMEN</b> D5LT=Fifth Light® DALI 1% Dimming DMX=DMX Dimming DE010=0-10V 1% Dimming <b>3000, 4000, 5000 AND 6000 LUMEN</b> DL3=1% Lutron® Hi-Lume 3-Wire or Ecosystem D010TR=0-10V 10% Dimming or Leading Edge <b>6500 LUMEN</b> D010=0-10V 10% Dimming DE010=0-10V 1% Dimming	EMBOD=Bodine® Emergency Module with Remote Test Switch <sup>2,3</sup>	ER8A=8" Module	30=3000 Lumens 40=4000 Lumens 50=5000 Lumens 60=6000 Lumens 65=6500 Lumens 80=8000 Lumens <sup>5</sup> 90=9000 Lumens <sup>5</sup> 100=10000 Lumens <sup>5</sup>	8=80 CRI 9=90 CRI	27=2700° K 30=3000° K 35=3500° K 40=4000° K

Reflector	Finish	Options	Accessories
8LW111=8" Wide Reflector, Single Wall Wash, Self-flanged 8LW121=8" Wide Reflector, Double Wall Wash, Self-flanged 8LW110=8" Wide Reflector, Single Wall Wash, Polymer Trim Ring 8LW120=8" Wide Reflector, Double Wall Wash, Polymer Trim Ring	LI=Specular Clear H=Semi-Specular Clear WMH=Warm Haze G=Specular Gold WH=Wheat WHH=Wheat Haze GP=Graphite GPH=Graphite Haze	B=Specular Black W=Gloss White <b>Self-flanged Only</b> WF=White Painted Flange	HB26=C-channel Bar Hanger, 26" Long, Pair HB50=C-channel Bar Hanger, 50" Long, Pair RMB22=Wood Joist Bar Hanger, 22" Long, Pair H347=347 to 120V Step Down Transformer, 75VA H347200=347 to 120V Step Down Transformer, 200VA Housings, Specify Slope

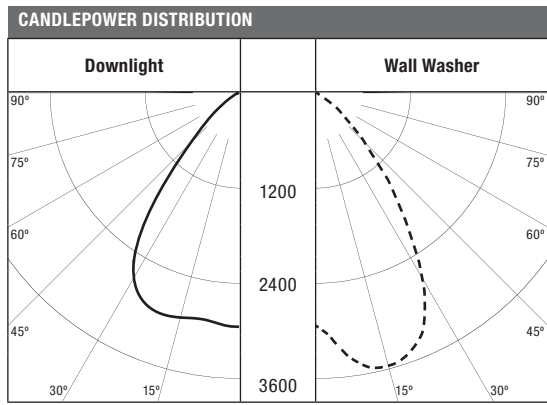
- Notes:**
1. Nominal Lumens will vary depending on selected color, driver and reflector finish.
  2. Not available with Chicago Plenum.
  3. Not CSA approved.
  4. Trailing edge and leading edge 120V only.
  5. Product is marked spacing and must be installed with the following minimum spacing:  
Center to Center of adjacent luminaires : 36"  
Center of Luminaire to Side of Building Member : 18"  
Minimum Overhead Clearance: 9"

**ENERGY DATA**

ENERGY DATA	
Sound Rating: Class A standards (Values at non-dimming line voltage)	
Minimum Starting Temperature: -20°C (-4°F) Power Factor: >0.90	
3000 Lumen	
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)	
Input Power: 42W	THD: <20%
120V Input Current: .35A	277V Input Current: .16A
Input Frequency: 50-60Hz	
4000 Lumen D010TE	
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)	
Input Power: 58W	THD: <20%
120V Input Current: .48A	277V Input Current: .21A
Input Frequency: 50-60Hz	
5000 Lumen D010TE	
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)	
Input Power: 62W	THD: <17%
120V Input Current: .52A	277V Input Current: .22A
Input Frequency: 50-60Hz	
6000 Lumen D010TE	
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)	
Input Power: 77W	THD: <17%
120V Input Current: .64A	277V Input Current: .28A
Input Frequency: 50-60Hz	

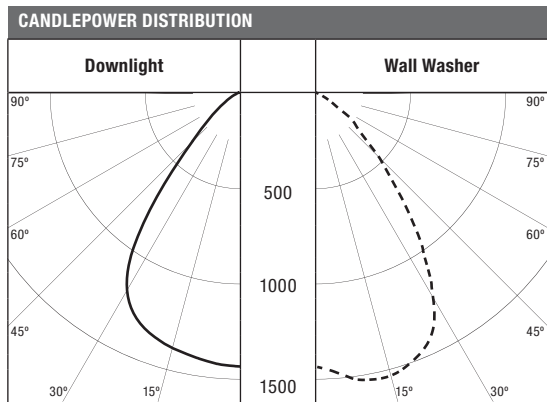
ENERGY DATA	
Sound Rating: Class A standards (Values at non-dimming line voltage)	
Minimum Starting Temperature: -20°C (-4°F) Power Factor: >0.90	
6500 Lumen D010	
Input Power: 84W	THD: <17%
120V Input Current: .70A	277V Input Current: .39A
Input Frequency: 50-60Hz	
8000 Lumen D010TE	
120V Input Power: 96W	277V Input Power: 96W
120V Input Current: .79A	277V Input Current: .36A
THDi 120V: <13%	THDi 277V: <20%
Input Frequency: 50-60Hz	
9000 Lumen D010TE	
120V Input Power: 108W	277V Input Power: 107W
120V Input Current: .89A	277V Input Current: .39A
THDi 120V: <13%	THDi 277V: <20%
Input Frequency: 50-60Hz	
10,000 Lumen D010TE	
120V Input Power: 126W	277V Input Power: 123W
120V Input Current: 1.05A	277V Input Current: .47A
THDi 120V: <13%	THDi 277V: <20%
Input Frequency: 50-60Hz	

PHOTOMETRICS



Test Number	P112727
LD8A50D010TE ER8A50835 8LMOLI	
Lumens	5035 Lm
CCT	3500K

SINGLE UNIT FOOTCANDLES				MULTIPLE UNIT FOOTCANDLES						
DD	3' FROM WALL (Distance From Fixture Along Wall)			2.5' FROM WALL (Spacing Between Fixtures)		3' FROM WALL (Spacing Between Fixtures)				
	1'	2'	3'	2'	3'	2'	3'			
1'	1	1	0	0	2	2	2	1	1	1
2'	8	5	2	1	30	32	30	27	18	27
3'	32	25	12	4	79	88	79	66	61	66
4'	43	36	22	10	87	97	87	70	78	70
5'	39	35	25	14	73	80	73	61	70	61
6'	31	29	23	15	54	58	54	47	53	47
7'	23	22	19	14	39	41	39	35	38	35
8'	17	16	14	12	28	29	28	26	28	26
9'	13	12	11	10	21	21	21	20	20	20
10'	10	9	8	8	16	16	16	15	15	15



Test Number	P113111
LD8A50D010TE ER8A50835 8L110H	
Lumens	4800 Lm
CCT	3500K

SINGLE UNIT FOOTCANDLES				MULTIPLE UNIT FOOTCANDLES						
DD	3' FROM WALL (Distance From Fixture Along Wall)			2.5' FROM WALL (Spacing Between Fixtures)		3' FROM WALL (Spacing Between Fixtures)				
	1'	2'	3'	2'	3'	2'	3'			
1'	3	2	1	0	8	8	8	7	5	7
2'	16	12	6	2	42	45	42	36	30	36
3'	33	26	14	6	77	86	77	65	61	65
4'	40	34	21	10	80	90	81	65	73	65
5'	35	32	24	14	64	71	66	54	62	55
6'	27	25	21	15	47	50	47	41	46	42
7'	20	19	16	13	33	35	33	30	33	30
8'	14	14	12	11	24	25	24	22	24	22
9'	11	10	9	8	18	18	18	17	17	17
10'	8	8	7	7	13	14	13	13	13	13

## DESCRIPTION

8-inch LED recessed wide downlight specially designed for LED technology. Two-stage reflector system produces smooth distribution with excellent light control and low aperture brightness. Lumen packages include 3000-10,000 lumens with color temperatures of 2700K, 3000K, 3500K, 4000K. Suitable for commercial construction and can be used to comply with California Title 24 non-residential requirements (with designated trims).

<b>Catalog #</b>	LD8A302DL3 ER8A30835 8LW0LI	<b>Type</b>	R9
<b>Project</b>		<b>Date</b>	
<b>Comments</b>			
<b>Prepared by</b>			

## SPECIFICATION FEATURES

### Lower Shielding Reflector

Self-flanged, spun .060" thick aluminum lower reflector in combination with a lensed upper optical chamber provides superior lumen output with minimal source brightness. Available in all Portfolio Alzak® finishes.

### Trim Retention

Lower reflector is retained with two torsion springs holding the flange tightly to the finished ceiling surface.

### Plaster Frame / Collar

Die cast aluminum 1-1/2" deep collar accommodates ceiling materials up to 2".

### Universal Mounting Bracket

Accepts 1/2" EMT, C channel and bar hangers and adjusts 5" vertically from above and below the ceiling.

### Junction Box

(4) 1/2" and (2) 3/4" trade size pry outs positioned to allow straight conduit runs. Listed for (8) #12

AWG (four in, four out) 90°C conductors and feed thru branch wiring.

### Thermal

Forged aluminum heat sink conducts heat away from the LED module for improved performance and longer life.

### LED

LED system contains a plurality of high brightness white LED's combined with a high reflectance upper reflector and convex transitional lens producing even distribution with no pixilation. Rated for 50,000 hours at 70% lumen maintenance. Color variation within 3-step MacAdam ellipses. Flexible disconnect allows for tool-less replacement of LED engine from below ceiling. Available in 80 or 90 CRI.

### Driver

Combination 0-10V/trailing edge driver provides flicker free dimming from 100% to 10%. Optional 1% 0-10V, Fifth Light,

DMX or Lutron® Ecosystem. Driver can be serviced from above or through the aperture.

### Code Compliance

Thermally protected and cULus listed for protected wet locations. cCSAus certified. Optional City of Chicago environmental air (CCEA) marking for plenum applications. EMI/ RFI emissions per FCC 47CFR Part 18 Class B consumer limits. Non-IC rated - Insulation must be kept 3" from top and sides of housing. RoHS Compliant. Photometric testing completed in accordance with IES LM 79 standards. LED life testing completed in accordance with LM 80 standards.

### Warranty

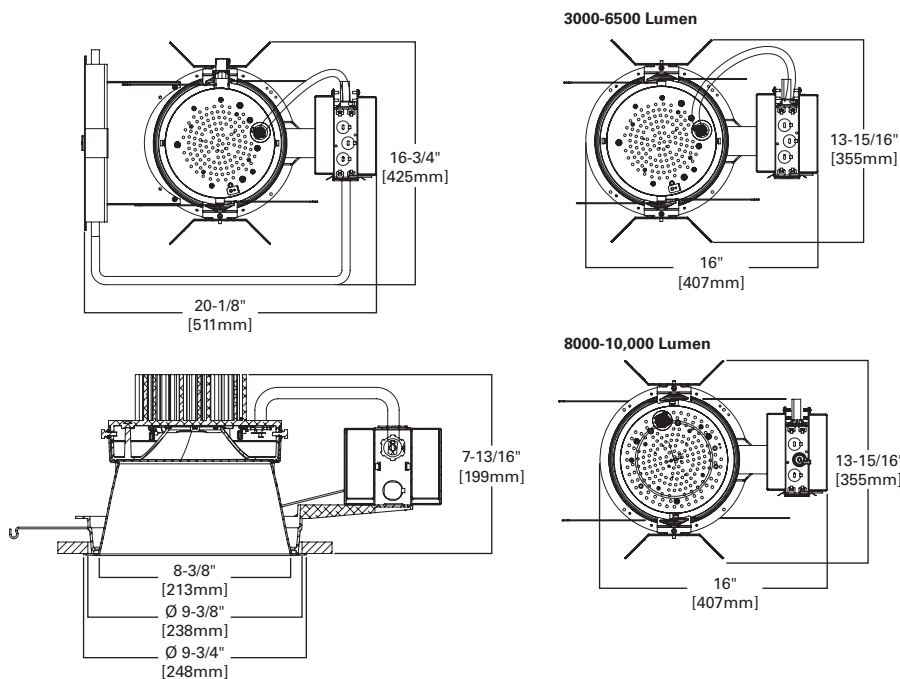
5 year warranty.



**LD8A  
ER8A  
8LW**

**3000-10,000  
Lumen LED**

**8-Inch Wide Beam Downlight  
New Construction**



Refer to ENERGY STAR® Qualified Products List. Can be used to comply with California Title 24 High Efficacy requirements.





EXAMPLE: LD8A501DE010 ER8A50835 8LW1LI= 8" LED Wide Beam Reflector Lens, 5000 Lumen, 3,500 K Color with Universal 120 - 277V, 0 - 10 Driver

Housing	Lumens <sup>1</sup>	Voltage	Driver	Options	Power Module	Lumens	CRI	Color
LD8A=8" Aperture LD8ACP=8" Aperture, Chicago Plenum	30=3000 Lumens 40=4000 Lumens 50=5000 Lumens 60=6000 Lumens 65=6500 Lumens 80=8000 Lumens 90=9000 Lumens 100=10000 Lumens	1=120V 2=277V	<b>3000, 4000, 5000, 6000, 8000, 9000 AND 10000 LUMEN</b> D010TE=0-10V 10% Dimming or Trailing Edge Dimming <b>3000, 4000, 5000, 6000 AND 8000 LUMEN</b> D5LT=Fifth Light* DALI 1% Dimming DMX=DMX Dimming DE010=0-10V 1% Dimming <b>3000, 4000, 5000 AND 6000 LUMEN</b> DL3=1% Lutron* Hi-Lume 3-Wire or Ecosystem D010TR=0-10V 10% Dimming or Leading Edge <b>6500 LUMEN</b> D010=0-10V 10% Dimming DE010=0-10V 1% Dimming	EMBOD=Bodine® Emergency Module with Remote Test Switch ? IEMBOD=Bodine® Emergency Module with Integral Test Switch ?	ER8A=8" Module  30=3000 Lumens 40=4000 Lumens 50=5000 Lumens 60=6000 Lumens 65=6500 Lumens 80=8000 Lumens 90=9000 Lumens 100=10000 Lumens		8=80 CRI 9=90 CRI	27=2700° K 30=3000° K 35=3500° K 40=4000° K

Reflector	Finish	Options	Accessories
8LW0=8" Wide Reflector, Polymer Trim Ring 8LW1=8" Wide Reflector, Self-flanged 8LW0E=8" Wide Reflector, Polymer Trim Ring for use with IEM Integral Emergency option 8LW1E=8" Wide Reflector, Self-flanged Trim Ring for use with IEM Integral Emergency option	LI=Specular Clear H=Semi-Specular Clear WMH=Warm Haze G=Specular Gold WH=Wheat WHH=Wheat Haze GP=Graphite GPH=Graphite Haze	B=Specular Black W=Gloss White  <b>Self-flanged Only</b> WF=White Painted Flange	HB26=C-channel Bar Hanger, 26" Long, Pair HB50=C-channel Bar Hanger, 50" Long, Pair RMB22=Wood Joist Bar Hanger, 22" Long, Pair H347=347 to 120V Step Down Transformer, 75VA  H347200=347 to 120V Step Down Transformer, 200VA Housings, Specify Slope HSA8=Slope Adapter for 8" Aperture Housings, Specify Slope LGSKT8IP65=IP65 Gasket Kit

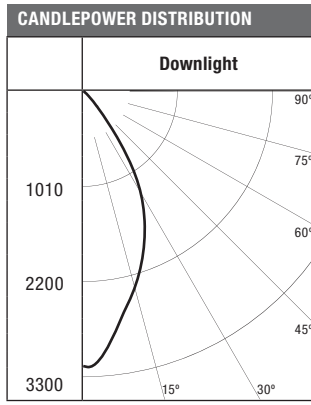
- Notes: 1. Nominal Lumens will vary depending on selected color, driver and reflector finish.  
2. Not available with Chicago Plenum.  
3. Trailing edge and leading edge 120V only.

ENERGY DATA

ENERGY DATA	
Sound Rating: Class A standards (Values at non-dimming line voltage)	
Minimum Starting Temperature: -20°C (-4°F) Power Factor: >0.90	
3000 Lumen	
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)	
Input Power: 42W	THD: <20%
120V Input Current: .35A	277V Input Current: .16A
Input Frequency: 50-60Hz	
4000 Lumen D010TE	
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)	
Input Power: 58W	THD: <20%
120V Input Current: .48A	277V Input Current: .21A
Input Frequency: 50-60Hz	
5000 Lumen D010TE	
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)	
Input Power: 62W	THD: <17%
120V Input Current: .52A	277V Input Current: .22A
Input Frequency: 50-60Hz	
6000 Lumen D010TE	
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)	
Input Power: 77W	THD: <17%
120V Input Current: .64A	277V Input Current: .28A
Input Frequency: 50-60Hz	

ENERGY DATA	
Sound Rating: Class A standards (Values at non-dimming line voltage)	
Minimum Starting Temperature: -20°C (-4°F) Power Factor: >0.90	
6500 Lumen D010	
Input Power: 84W	THD: <17%
120V Input Current: .70A	277V Input Current: .30A
Input Frequency: 50-60Hz	
8000 Lumen D010TE	
120V Input Power: 96W	277V Input Power: 96W
120V Input Current: .79A	277V Input Current: .36A
THDi 120V: <13%	THDi 277V: <20%
Input Frequency: 50-60Hz	
9000 Lumen D010TE	
120V Input Power: 108W	277V Input Power: 107W
120V Input Current: .89A	277V Input Current: .39A
THDi 120V: <13%	THDi 277V: <20%
Input Frequency: 50-60Hz	
10,000 Lumen D010TE	
120V Input Power: 126W	277V Input Power: 123W
120V Input Current: 1.05A	277V Input Current: .47A
THDi 120V: <13%	THDi 277V: <20%
Input Frequency: 50-60Hz	

PHOTOMETRICS



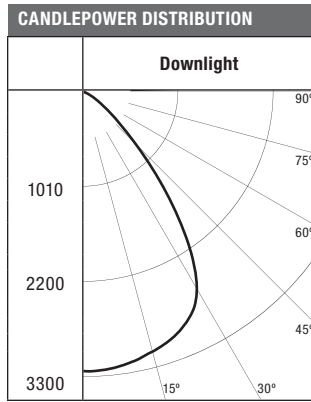
Test Number	P110167
LD8A50D010TE ER8A50835 8LWOL	
Lumens	5083 Lm
Efficacy	81.9 Lm/W
CCT	3500K
SC	1

CONE OF LIGHT		
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
12.5'	22	15
15'	15	18
20'	8	24
24'	6	29
28'	4	34

CANDELA TABLE	
Degrees Vertical	Candela
0	3304
5	3395
15	3658
25	3398
35	2268
45	967
55	203
65	18
75	1
85	0
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	%Fixture
0-30	2740	54
0-40	4147	81
0-60	5052	99
0-90	5083	100
90-180	0	0
0-180	5083	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	42170
55	10921
65	1320
75	166
85	0



Test Number	P110039
LD8A50D010TE ER8A50835 8LWOH	
Lumens	4790 Lm
Efficacy	77.2 Lm/W
CCT	3500K
SC	1

CONE OF LIGHT		
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
12.5'	21	15
15'	14	18
20'	8	24
24'	5	29
28'	4	34

CANDELA TABLE	
Degrees Vertical	Candela
0	3200
5	3288
15	3542
25	3291
35	2196
45	936
55	197
65	18
75	1
85	0
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	%Fixture
0-30	2478	51
0-40	3754	78
0-60	4696	98
0-90	4790	100
90-180	0	0
0-180	4790	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	40840
55	10577
65	1278
75	161
85	0

# raye G2

3"H X 3.6"W



18" FIXTURE



72" FIXTURE

5-year warranty

### Application

**raye** Generation 2 (G2) is today's answer to high performance cove applications. Available in a 3" x 3" housing (2" x 6" housing also available), much of the extruded aluminum heat sinking (required for Raye Gen 1) has been removed enabling a cost reduction while maintaining superior thermal management. **io** utilizes the highest efficacy LEDs and tightest Binning (2-step MacAdam). **raye** Gen 2 is the high-performance, affordable answer to new and retrofit cove applications. While exceeding T8 & T5 high performance alternatives, **raye's** optical assembly has been designed to uniformly illuminate the interior surfaces of the cove while offering a very precise asymmetric beam projection. Now field adjustable, the fixture can be tilted up to illuminate various types of ceiling conditions (i.e. barrel vaults). An LED tray can be removed in the field via a quick disconnect for future maintenance without disrupting the permanent installation. The driver is also easily accessible for future maintenance. Projected average rated life is 50,000 hours at 70% of lamp lumen output. **io** utilizes LEDs that are compliant with LM 80 standards. Ambient temperature surrounding the fixture shall not exceed 122°F (50°C).

### Light Output

**raye** is available with four lumen outputs for white light only. All values listed below represent initial lumens. LM79 IES format files are available on the Cooper website. **io** only delivers high quality white light solutions with 2-step Binning. 80+CRI is standard. For 90+ CRI, please consult factory for pricing and lead-time.

>> 2-step MacAdam Binning.

	Standard Output	Mid Output	Very High Output	V2HO
<b>INITIAL LUMENS</b>				
2700K White:	342 lms/ft	456 lms/ft	661 lms/ft	684 lms/ft
3000K White:	384 lms/ft	512 lms/ft	742 lms/ft	768 lms/ft
3500K White:	390 lms/ft	520 lms/ft	754 lms/ft	780 lms/ft
4000K White:	414 lms/ft	552 lms/ft	800 lms/ft	828 lms/ft

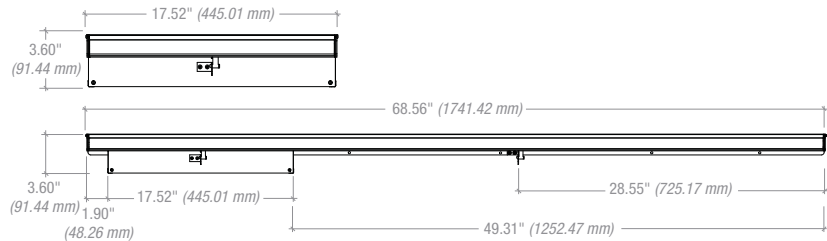
	4.80 w/ft	6.40 w/ft	9.60 w/ft	10.56 w/ft
<b>POWER CONSUMPTION*</b>				

Non-standard color temperatures available as a custom offering for a modest additional cost and lead-time.

\* Power Consumption does not include power supply losses.

### Construction

**raye's** wireway housing is die formed 20 gauge prime cold rolled steel. The wireway is 17.15" in length for both the 18" & 72" fixtures. Knockouts are provided for 1/2" conduit fittings. Wiring components and Drivers are mounted to a one piece back housing, permitting removal of the cover for ease of maintenance. An anodized aluminum channel which houses the LED tray and optic is mechanically fastened to a metal channel that runs the length of the fixture.



### Mounting Options

**raye** is designed to be surface mounted within an architectural cove for indirect illumination. For a uniform distribution (with no socket shadows) of light fixtures should be mounted end-to-end.

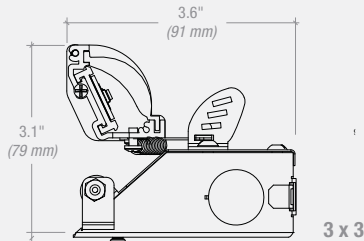
### Electrical

All fixtures are pre-wired and pre-assembled for easy installation. Electronic drivers (universal power supplies, 120-277v) are integral within the sheet metal wire way housing for both the 18" and 72" units.

### Finish

White powder coat paint finish is standard.

Dimensions



## LED lighting facts<sup>®</sup>

A Program of the U.S. DOE

Light Output (Lumens) **3369**  
 Watts **74.4**  
 Lumens per Watt (Efficacy) **45**

Color Accuracy  
 Color Rendering Index (CRI) **83**

Light Color  
 Correlated Color Temperature (CCT) **3155 (Bright White)**

2700K 3000K 4500K 6500K

Warranty\*\* **Yes**

All results, except LED Lumen Maintenance, are according to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

\*\* See [www.lightingfacts.com/products](http://www.lightingfacts.com/products) for details.

Registration Number: PNE4-GEJS2H (7/11/2013)

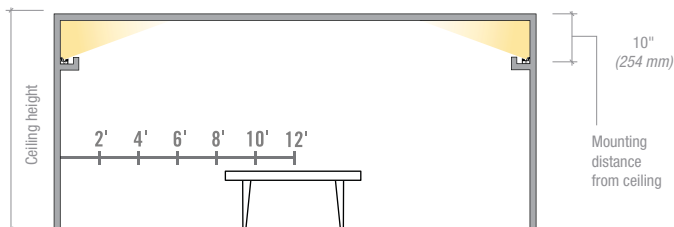
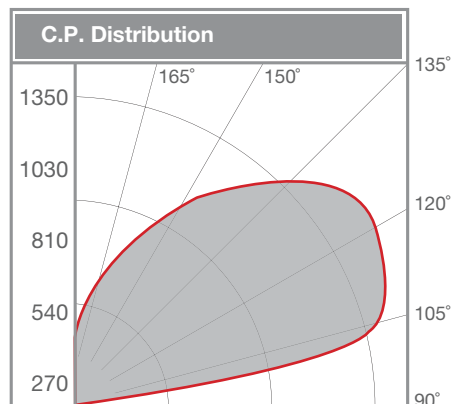
Model Number: 0.08.3KV2HO.C33.1.72

Type: Cove light

Label references 72" **raye** fixture in V2HO 3000K. Lighting Facts for additional beam spreads and light output levels may be obtained from **io** Lighting.

COVE LIGHTING

3KV2HO – 72" Length



10" MOUNTING DISTANCE

Ceiling Height	2'	4'	6'	8'	10'	12'
11'-6" (3.51m)	25.5fc	26.3fc	25.5fc	23.5fc	22.4fc	22.2fc
10'-6" (3.20m)	26.8fc	27.3fc	25.4fc	22.9fc	20.9fc	20.4fc
9'-6" (2.90m)	28.5fc	28.3fc	24.8fc	21.5fc	19.1fc	18.5fc
8'-6" (2.59m)	32.5fc	32.2fc	27.2fc	21.9fc	18.0fc	17.3fc

\*Calculations based on 3KV2HO LEDs.

LIGHT OUTPUT CONVERSION TABLE

	Standard Output	High Output	Very High Output	V2HO
2700K White	0.44 <sup>(1)</sup>	0.72 <sup>(1)</sup>	0.95 <sup>(1)</sup>	1.40 <sup>(1)</sup>
3000K White	0.47 <sup>(1)</sup>	0.75 <sup>(1)</sup>	1.00 <sup>(1)</sup>	1.47 <sup>(1)</sup>
3500K White	0.48 <sup>(1)</sup>	0.77 <sup>(1)</sup>	1.03 <sup>(1)</sup>	1.51 <sup>(1)</sup>
4000K White	0.47 <sup>(1)</sup>	0.75 <sup>(1)</sup>	1.00 <sup>(1)</sup>	1.47 <sup>(1)</sup>

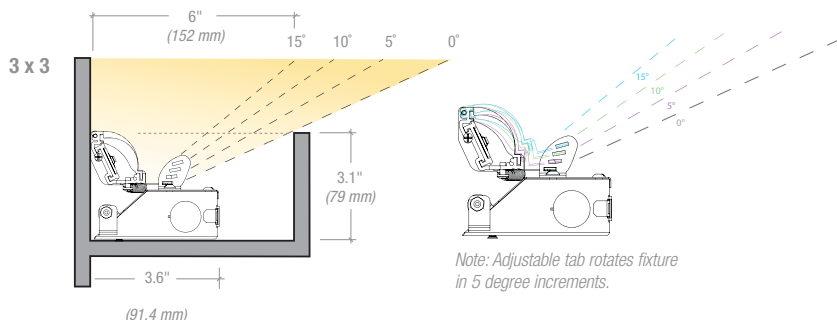
Visit [www.iolighting.com](http://www.iolighting.com) or contact an **io** representative for IES format photometrics.

NEW: FIELD ADJUSTABLE ILLUMINATION ANGLES



Application Notes

- For cove applications, there should not be less than 6" of lampless (fixtureless) space at the end of all run lengths.
- For cove applications, **raye** luminaires shall be butted end to end to eliminate any opportunity for socket shadows.
- For ease of maintenance, the Printed Circuit Board (PCB) Assembly may be removed from the all **raye** housings via a quick disconnect and a removable extruded aluminum sliding tray (which contains the PCB). This can be accomplished without removing the wireway which is connected to line voltage.



0	08			1		
io	1	2	3	4	5	6

Order Code

1. SERIES

08 raye Gen 2

2. COLOR

27K	White 2700K SO <sup>(1)</sup>	35K	White 3500K SO <sup>(1)</sup>
27KHO	White 2700K HO <sup>(1)</sup>	35KHO	White 3500K HO <sup>(1)</sup>
27KVHO	White 2700K VHO <sup>(1)</sup>	35KVHO	White 3500K VHO <sup>(1)</sup>
27KV2HO	White 2700K V2HO <sup>(1)</sup>	35KV2HO	White 3500K V2HO <sup>(1)</sup>
3K	White 3000K SO <sup>(1)</sup>	4K	White 4000K SO <sup>(1)</sup>
3KHO	White 3000K HO <sup>(1)</sup>	4KHO	White 4000K HO <sup>(1)</sup>
3KVHO	White 3000K VHO <sup>(1)</sup>	4KVHO	White 4000K VHO <sup>(1)</sup>
3KV2HO	White 3000K V2HO <sup>(1)</sup>	4KV2HO	White 4000K V2HO <sup>(1)</sup>
		CC	Custom Color <sup>(2)</sup>

3. MOUNTING

C33 Cove 3" x 3"  
Note: 2" x 6" profile also available

4. FINISH

1 White

5. LENGTH

UNITS (ACTUAL)  
18 18" (17.52"/445.01mm)  
72 72" (68.56"/68.56mm)

FOR CONTINUOUS ROW  
Specify length (e.g., 51'-0")  
Note: Overall length must be multiples of 72" and 18" lengths.

6. VOLTAGE / DIMMING

ND Non-Dimming (120-277v)  
D 0-10V (Osram)<sup>(3)</sup>  
DALI DALI (Osram)<sup>(3)</sup>  
DMX DMX (Osram)<sup>(3)</sup>  
L Lutron Hi-Lume A-Series

Footnotes

1. White light variance between LEDs is equal to or better than 3-step MacAdam Binning.
2. Non-standard color temperature and CRI are available. Consult factory for availability.
3. Consult factory for other dimming driver options.



raye applications  
[youtube.com/iolighting](http://youtube.com/iolighting)

## DESCRIPTION

- LED asymmetric distribution
- Extruded aluminum housing
- Die-cast aluminum end-caps
- Die-cast adjustable mounting arms
- Alanod® MIRO® 4 aluminum reflector
- Extruded, lightly diffused acrylic lens standard
- Electrostatically applied polyester powder coat paint finish

Catalog #	A02-SI-A-2-LED-35K-277-S-AK12-D	Type	W1
Project		Date	
Comments			
Prepared by			

## SPECIFICATION FEATURES

### Construction

Housing is corrosion-resistant Type 6063-T6 aluminum extrusion with die-cast aluminum end caps. End caps are secured by concealed stainless steel fasteners. Housing, end caps and lens are sealed with single, closed cell silicone gaskets. Stainless steel hardware is standard.

### Reflector

Reflector is constructed from highly specular Alanod® MIRO® 4 aluminum with minimum 95% reflectance.

### Aiming

Fixture includes the PointGrab2™ lockable aiming system, providing minimum 180 degree vertical adjustment of the fixture housing in 5 degree increments. The aiming feature locks securely in place by means of a stainless steel locking mechanism.

### Lens

A lightly diffused acrylic lens is standard, constructed of impact-resistant, U.V. stabilized virgin acrylic to prevent discoloration.

### Electrical

LED fixtures use .92 power factor UL 1310 Class 2 AC to DC driver with built-in dimming. Integral LED lamp modules are easily replaceable in the field.

### Mounting

Fixture includes Slide-N-Mount™ adjustable, lockable mounting arms (patent pending), constructed from Type 383 die-cast aluminum. Support structure by others.

### Finish

Fixture housing is finished using electrostatically applied polyester powdercoat paint. Consult factory for custom colors.

### Labels

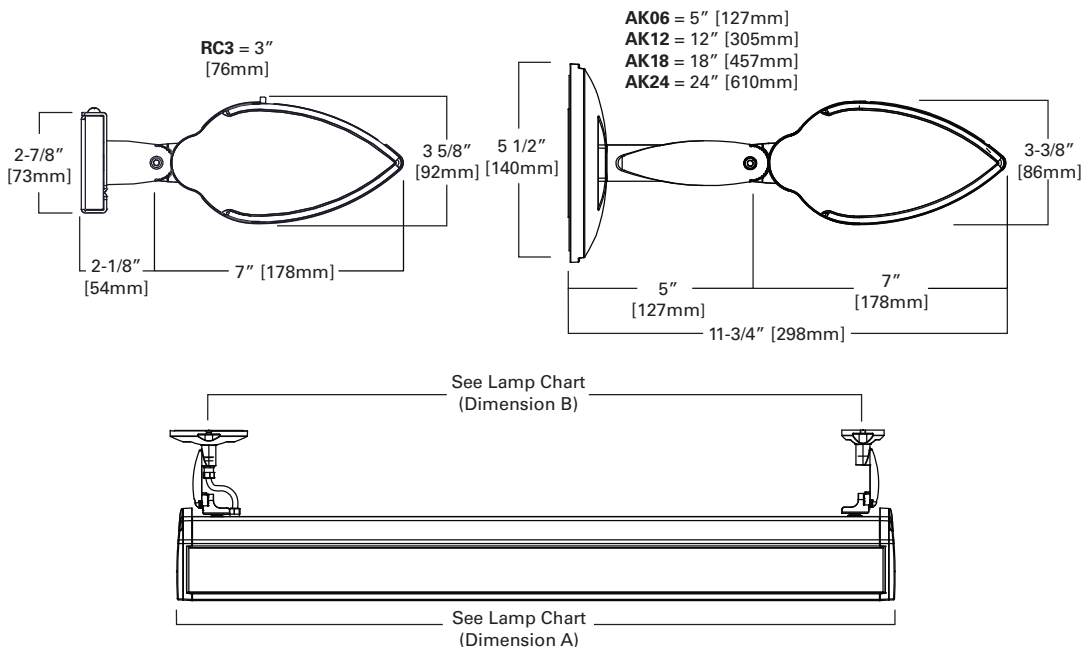
UL / cUL listed for use in damp locations.



## ARROWLINEAR LED

Extra Small Integral  
Individual Linear

WALL



## Lamp Chart

Lamp Source	* Light Level 2: Absolute Lumens	Nominal Fixture Length	Actual Fixture Length	**** Recommended Mounting Centers
LED	1000	1'	13-1/2" (343mm)	** See note below
LED	2000	2'	27-3/8" (695mm)	22-13/16" (580mm)
LED	3000	3'	39-3/16" (995mm)	34-5/8" (880mm)
LED	4000	4'	51" (1295mm)	46-7/16" (1180mm)
LED	6000	6'	77-7/16" (1967mm)	72-29/32" (1852mm)
LED	8000	8'	101-1/16" (2567mm)	96-17/32" (2452mm)
LED	12,000	12'	151-3/16" (3839mm)	*** 146-7/16 (3719mm)

\* Based on 3500K CCT. See photometric files at [www.ametrixlighting.com](http://www.ametrixlighting.com) for delivered lumen levels.

\*\* 1' fixtures utilize a single, centered RC3 mounting arm.

\*\*\* 12' fixtures require three mounting points.

\*\*\*\* Slide-N-Mount™ adjustable, lockable mounting arms are standard.

## ORDERING INFORMATION

Sample Number: A04-SI-A-2-LED-30K-120-W-AK6-LMC

<b>Product</b> <b>A01</b> =Arrowline 1' Unit <sup>1, 2</sup> <b>A02</b> =Arrowline 2' Unit <b>A03</b> =Arrowline 3' Unit <b>A04</b> =Arrowline 4' Unit <b>A06</b> =Arrowline 6' Unit <b>A08</b> =Arrowline 8' Unit <b>A12</b> =Arrowline 12' Unit  <b>Size - In/Outdoor</b> <b>SI</b> =Extra Small - Indoor	<b>Lens</b> <b>A</b> =Acrylic  <b>Light Level</b> <b>2</b> =See Lamp Chart above	<b>Lamp Type</b> <b>LED</b> =LED  <b>Color Temperature</b> <b>30K</b> =3000K <b>35K</b> =3500K <b>40K</b> =4000K	<b>Voltage</b> <b>120</b> =120V <b>277</b> =277V <b>347</b> =347V <b>UNV</b> =Universal	<b>Finish</b> <b>B</b> =Bronze <b>C</b> =Custom (specify) <b>K</b> =Black <b>S</b> =Silver <b>W</b> =White	<b>Mounting</b> <b>RC3</b> =Rectangular Canopy, 3" Arm / Integral <sup>1, 2</sup> <b>AK6</b> =6" Adjustable Knuckle / Integral <b>AK12</b> =12" Adjustable Knuckle / Integral <b>AK18</b> =18" Adjustable Knuckle / Integral <b>AK24</b> =24" Adjustable Knuckle / Integral	<b>Options</b> <sup>3</sup> <b>B</b> =Battery Pack <b>D</b> =Dimming <b>E</b> =Emergency <b>LMC</b> =Large AK Mounting Canopies (in lieu of standard)			

- Notes: 1 A single RC3 mounting arm is standard for model A01.  
 2 2" x 4" horizontal J-box (by others) required for mounting.  
 3 All options may not be available with all models.

**DESCRIPTION**

The geometric form of MESA LED luminaire allows it to adapt to either contemporary or traditional architectural settings. Available in single or twin pole mount configurations with optional wall mounting capability, the MESA LED luminaire's mounting options allow for harmonized site design whether at the entryway or in the parking lot. UL/cUL listed for use in wet locations.

<b>Catalog #</b>	<b>MSA-C01-LED-E1-T3-GM</b>	<b>Type</b>
<b>Project</b>		<b>X1</b>
<b>Comments</b>		<b>Date</b>
<b>Prepared by</b>		

**SPECIFICATION FEATURES**

**Construction**

**HOUSING:** Die-cast aluminum main housing and spider mount base maintain a minimum 0.125 wall thickness. Integral aluminum heat sink provides superior thermal heat transfer in +40°C ambient environments. **DOOR ASSEMBLY:** Top mounted, heavy wall, die-cast aluminum door maintains a nominal 0.125 thickness. Door includes a self-retaining interior hinge. **GASKET:** Continuous silicone gasket provided to seal housing door assembly and optic tray. **LENS:** Downlight lens is LED board integrated acrylic over-optics, each individually sealed for IP66 rating. **HARDWARE:** Four inset fasteners on underside of housing provide access to luminaire interior. Concealed, stainless steel four bar hinge lock allows door to lock in the open position.

**Optics**

**DISTRIBUTION:** Choice of twelve patented, high-efficiency AccuLED Optics™, featuring designs that maximize light collection and directional distribution onto the application region. Each optical lens is precision manufactured via injection-molding then precisely arranged and sealed on the board

media. **LEDs:** High output LEDs, 60,000+ hours life at >90% lumen maintenance, offered standard in 4000°K (+/- 275K) CCT and nominal 70 CRI. Mesa LightBAR optic tray is removable and able to rotate 360° in 90° increments for specific placement of the distribution relative to fixture.

**Electrical**

**DRIVER:** LED drivers are potted and heat sunk for optimal performance and prolonged life. Standard drivers feature electronic universal voltage (120-277V/50-60Hz), greater than 0.9 power factor, less than 20% harmonic distortion and feature ambient temperature range of +40°C (104°F) down to minimum starting temperature of -30°C (-22°F). Shipped standard with Cooper Lighting proprietary circuit module designed to withstand 10kV of transient line surge. All LED LightBARs™ and drivers are mounted to dedicated mounting trays and are easily replaced by use of quick disconnects for ease of wiring. Driver tray is removable without the use of tools. Options to control light levels, energy savings and egress capabilities (battery pack and separate circuit) are available.

**Mounting**

Fitter assembly mounts over 3" O.D. tenon and is secured via three concealed stainless steel set screws. Design of fitter provides seamless transition to 4" round poles. Additional mounting accessories include a dual fixture post top mounting arm and wall mount arm.

**Finish**

Housing is finished in five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. LightBAR™ cover plates are standard white and may be specified to match finish of luminaire housing. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult Outdoor Architectural Colors brochure for a complete selection.

**Warranty**

Five-year warranty.



**MSA MESA LED**

**1-6 LightBARs**  
**Solid State LED**

**DECORATIVE LUMINAIRE**



**CERTIFICATION DATA**

UL/cUL Listed  
ISO 9001  
IP66 LightBARs  
LM79 / LM80 Compliant  
2G Vibration Tested  
DesignLights Consortium® Qualified\*

**ENERGY DATA**

**Electronic LED Driver**  
>0.9 Power Factor  
<20% Total Harmonic Distortion  
120-277V/50 & 60Hz, 347V/60Hz,  
480V/60Hz  
-30°C Minimum Temperature  
40°C Ambient Temperature Rating

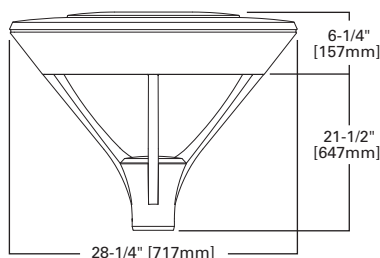
**EPA**

**Effected Projected Area**  
1.1 Sq. Ft.

**SHIPPING DATA**

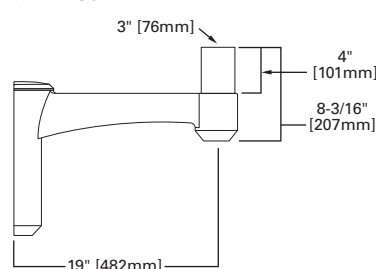
**Approximate Net Weight:**  
50 lbs. (22.7 kgs.)

**DIMENSIONS**

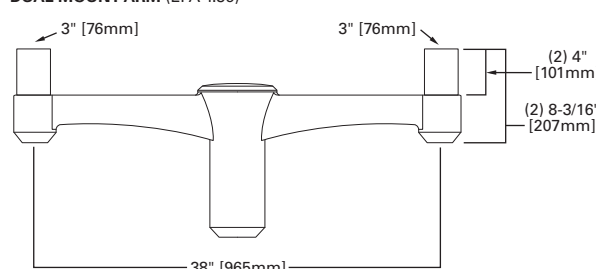


**MOUNTING ACCESSORIES**

**WALL MOUNT ARM**



**DUAL MOUNT ARM (EPA 1.36)**



## POWER AND LUMENS BY BAR COUNT

Number of LightBARs	Distribution													
	Power (Watts)	Current @ 120V (A)	Current @ 277V (A)	T2	T3	T4	SL2	SL3	SL4	5MQ	5WQ	5XQ	RW	SLR/SLL
<b>7 LED LIGHTBAR</b>														
<b>C01</b>	27	0.23	0.13	1,708	1,709	1,668	1,718	1,668	1,675	1,845	1,770	1,791	1,701	1,609
<b>C02</b>	54	0.46	0.21	3,291	3,294	3,215	3,311	3,214	3,228	3,556	3,412	3,451	3,277	3,102
<b>C03</b>	77	0.65	0.29	4,751	4,755	4,641	4,779	4,640	4,660	5,133	4,925	4,982	4,731	4,478
<b>C04</b>	101	0.86	0.37	6,270	6,276	6,125	6,308	6,124	6,151	6,775	6,500	6,575	6,244	5,910
<b>C05</b>	131	1.11	0.50	7,508	7,515	7,334	7,553	7,333	7,365	8,112	7,783	7,873	7,477	7,076
<b>C06</b>	154	1.30	0.58	9,086	9,094	8,875	9,140	8,874	8,913	9,817	9,419	9,528	9,048	8,563
<b>21 LED LIGHTBAR</b>														
<b>B01</b>	27	0.23	0.13	2,101	2,102	2,052	2,113	2,052	2,061	2,269	2,177	2,203	2,092	1,980
<b>B02</b>	51	0.43	0.20	4,048	4,052	3,954	4,072	3,954	3,971	4,374	4,196	4,245	4,031	3,815
<b>B03</b>	73	0.62	0.28	5,844	5,849	5,708	5,879	5,707	5,732	6,314	6,058	6,128	5,820	5,507
<b>B04</b>	95	0.81	0.35	7,712	7,720	7,534	7,759	7,533	7,566	8,333	7,995	8,087	7,681	7,269
<b>B05</b>	124	1.05	0.48	9,235	9,243	9,021	9,290	9,020	9,059	9,978	9,573	9,684	9,197	8,703
<b>B06</b>	146	1.24	0.56	11,176	11,186	10,917	11,243	10,915	10,963	12,075	11,585	11,719	11,130	10,533

## LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.04
15°C	1.03
25°C	1.00
40°C	0.96

## LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 350,000
40°C	> 93%	> 250,000
50°C	> 90%	> 170,000

## ORDERING INFORMATION

Sample Number: MSA-A06-LED-E1-T3-GM

Product Family <sup>1</sup>	Number of LightBARs <sup>2,3</sup>	Lamp Type	Voltage	Distribution	Color <sup>4</sup>
MSA=Mesa	<b>B01</b> =(1) 21 LED LightBAR <b>B02</b> =(2) 21 LED LightBARs <b>B03</b> =(3) 21 LED LightBARs <b>B04</b> =(4) 21 LED LightBARs <b>B05</b> =(5) 21 LED LightBARs <b>B06</b> =(6) 21 LED LightBARs <b>C01</b> =(1) 7 LED LightBAR <b>C02</b> =(2) 7 LED LightBARs <b>C03</b> =(3) 7 LED LightBARs <b>C04</b> =(4) 7 LED LightBARs <b>C05</b> =(5) 7 LED LightBARs <b>C06</b> =(6) 7 LED LightBARs	LED=Solid State Light Emitting Diodes	<b>E1</b> =Electronic (120-277V) <b>347</b> =347V <b>480</b> =480V	<b>T2</b> =Type II Area <b>T3</b> =Type III Area <b>T4</b> =Type IV Short <b>SL2</b> =Type II w/Spill Control <b>SL3</b> =Type III w/Spill Control <b>SL4</b> =Type IV w/Spill Control <b>RW</b> =Rectangular Wide <b>5MQ</b> =Type V Square Medium <b>5WQ</b> =Type V Square Wide <b>5XQ</b> =Type V Square Extra Wide <b>SLR</b> =90° Spill Light Eliminator Left <b>SLR</b> =90° Spill Light Eliminator Right	<b>AP</b> =Grey <b>BZ</b> =Bronze <b>BK</b> =Black <b>DP</b> =Dark Platinum <b>GM</b> =Graphite Metallic <b>WH</b> =White
Options (Add as Suffix)			Accessories (Order Separately) <sup>9</sup>		
<b>PC</b> =Button Type Photocontrol (Specify Voltage) <b>R</b> =NEMA Twistlock Photocontrol Receptacle <b>2L</b> =Two Circuits <sup>5</sup> <b>LCF</b> =LightBAR Cover Plate Matches Housing Finish <b>7060</b> =70 CRI / 6000K CCT <sup>6</sup> <b>8030</b> =80 CRI / 3000K CCT <sup>6</sup> <b>ICB</b> =Integral Cold Weather Battery Pack (Specify 120 or 277V) <sup>7</sup> <b>DIMRF-LW</b> =LumaWatt Wireless Sensor, Wide Lens for 8' - 16' Mounting Height <sup>8</sup> <b>DIMRF-LN</b> =LumaWatt Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height <sup>8</sup>			<b>VA6028-XX</b> =Dual Mount Arm (EPA 1.38) <b>VA6029-XX</b> =Wall Mount Arm <b>OA/RA1016</b> =NEMA Photocontrol - Multi-Tap <b>OA/RA1027</b> =NEMA Photocontrol - 480V <b>OA/RA1201</b> =NEMA Photocontrol - 347V <b>MA1253</b> =10kV Circuit Module Replacement		

## Notes:

- DesignLights Consortium® Qualified. Refer to [www.designlights.org](http://www.designlights.org) Qualified Products List under Family Models for details.
- Standard 4000K CCT and nominal 70 CRI.
- 21 LED LightBAR powered at 350mA, 7 LED LightBAR powered at 1A.
- Cutsom and RAL color matching available upon request. Consult your Eaton's Cooper Lighting business representative for more information.
- Low-level output varies by bar count. Consult factory. Not available with 347V or 480V. Requires quantity two or more LightBARs.
- Consult factory for lead times and lumen multiplier.
- Available with B01-B04 or C01-C04 configurations only. Specify 120V or 277V. LED cold weather integral battery pack is rated for minimum operating temperature -40°F (-20°C). Operates one LightBAR for 90-minutes. Not available in all configuration, consult factory. Rated for use in 25°C ambient.
- LumaWatt wireless sensors are factory installed and require network components RF-EM1-, RF-GW1 and RF-ROUT1 in appropriate quantities. See [www.cooperlighting.com](http://www.cooperlighting.com) for LumaWatt application information.
- Replace XX with color designation.



# luxrail™

INTERIOR/EXTERIOR APPLICATIONS



1-year warranty

### Application

ANSI and ADA compliant, **luxrail** is an indoor/outdoor LED-based handrail that delivers functional illumination. Three intensities may be specified: standard output, mid output, and high output. The standard light output version delivers illuminance levels appropriate for exterior applications (2 footcandles at grade) as well as for dark interior environments with low ambient illumination levels (e.g., themed environments, theatres and residential areas). The high output version delivers illuminance levels applicable to interior environments – providing in excess of 10 footcandles along the path of egress (ANSI required for stair treads). Independent photometric test reports and IES Format data are available at [www.iolighting.com](http://www.iolighting.com).

**luxrail's** standard handrail gripping surfaces are circular in cross section and meet 2004 ADAAG (Americans with Disability Act Accessibility Guidelines). Patented optical assemblies deliver 10°, 25°, and 55° beam spreads, as well as an asymmetric option. The 25° and 55° beam patterns are most suitable for illuminating pathways, while the 10° beam spread offers accent lighting for optional glass or stainless steel cable railing infills. Reference page 54 of this catalog for information regarding infill options. Projected average rated life is 50,000 hours at 70% of lamp lumen output. Contact factory for IES LM-80 compliance. To ensure proper performance, architectural details should allow for ventilation and air flow around the fixture. Ambient temperature surrounding the fixture shall not exceed 122°F (50°C).

### Light Output

Three luminous intensities are available for white light. All values below represent the initial raw lumens of the LED. IES format photometry of Lighting Facts labels represent actual light output measured in lumens and candle power. Light output losses include optical, thermal and power supply inefficiencies. IES LM-79 format files may be obtained from the factory or downloaded from [www.iolighting.com](http://www.iolighting.com). Results are typical measurements. For 90+ CRI, please consult factory for pricing and availability.

	Standard Output	Mid Output	High Output
<b>Initial Lumens</b>			
2700K White:	72 lms/ft	181 lms/ft	253 lms/ft
3000K White:	81 lms/ft	203 lms/ft	284 lms/ft
3500K White:	83 lms/ft	206 lms/ft	289 lms/ft

Non-standard color temperatures available as a custom offering for a modest additional cost and lead-time.

### Construction

**luxrail** may be post mounted or wall mounted. **io** recommends installation be completed by a qualified handrail installer. Mounting hardware (post or wall) is typically required up to 5' O.C., depending on the handrail alloy. Final post and wall bracket spacing must be determined by a licensed architect or structural engineer. **luxrail** is available in stainless steel and aluminum. Vandal resistant access chamber allows units to be removed for maintenance purposes. The LED light fixture inside the caprail is UL Listed for wet locations. Handrail alloy options include stainless steel and aluminum. Contact factory for maintenance guidelines.

All handrail component parts are engineered for quick installation. Field welding or cutting is typically not required. All parts are prefabricated to field dimensions and are assembled in the field with mechanical connection or epoxy. Contact **io** Lighting for recommended handrail installers.

### Electrical

**luxrail** houses a low voltage LED-based light fixture that is integrated into the underside of the handrail. 24 volt 100 watt power supplies are provided as a standard. For detailed information regarding daisy chain limitations, remote distance limitations, power supply options, and dimming options consult the **io** website ([www.iolighting.com](http://www.iolighting.com)) or an **io** representative.

#### Driver Remote Distance

- 7'-0" (2.1m) w/22 AWG
- 18'-0" (5.5m) w/18 AWG
- 46'-0" (14.0m) w/14 AWG
- 71'-0" (21.6m) w/12 AWG

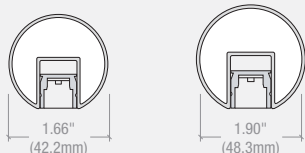
Dimming modules must be specified separately. For detailed information download the power supply specification sheet from [www.iolighting.com](http://www.iolighting.com).

### Power Consumption

Power consumption does not include power supply losses.

Standard Output	Mid Output	High Output
1.02 w/ft	2.54 w/ft	3.81 w/ft

Dimensions



io Lighting

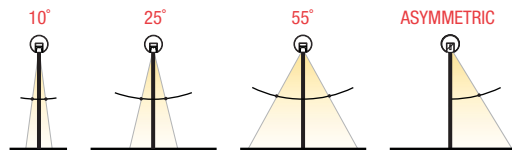
**LED lighting facts**  
A Program of the U.S. DOE

<b>Light Output (Lumens)</b>	<b>512</b>
<b>Watts</b>	<b>12.4</b>
<b>Lumens per Watt (Efficacy)</b>	<b>41</b>
<b>Color Accuracy</b> <small>Color Rendering Index (CRI)</small>	<b>83</b>
<b>Light Color</b> <small>Correlated Color Temperature (CCT)</small>	<b>2992 (Warm White)</b>
<b>Warranty**</b>	<b>Yes</b>

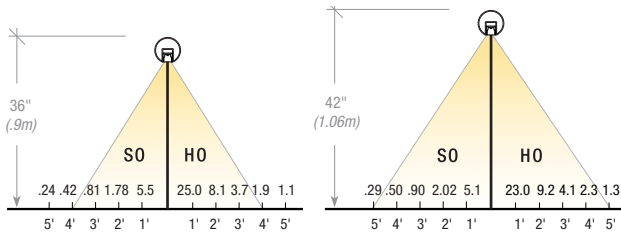
All results, except LED Lumen Maintenance, are according to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.  
 \*\* See [www.lightingfacts.com/products](http://www.lightingfacts.com/products) for details.  
 Registration Number: PNE4-KCVQNN (7/11/2013)  
 Model Number: 0.03.1.3KHO.55.1.06.2  
 Type: Outdoor path/stairrail light

Label references 36" **luxrail** fixture with a 55° beam spread in High Output 3000K. Lighting Facts for additional beam spreads and light output levels may be obtained from **io** Lighting.

BEAM SPREAD OPTIONS

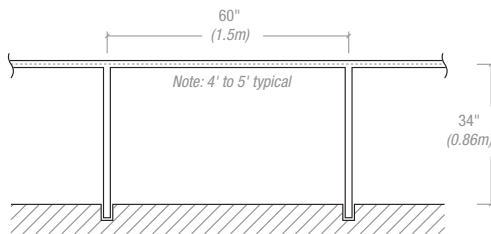


LIGHT OUTPUT - 55 DEGREE WARM WHITE



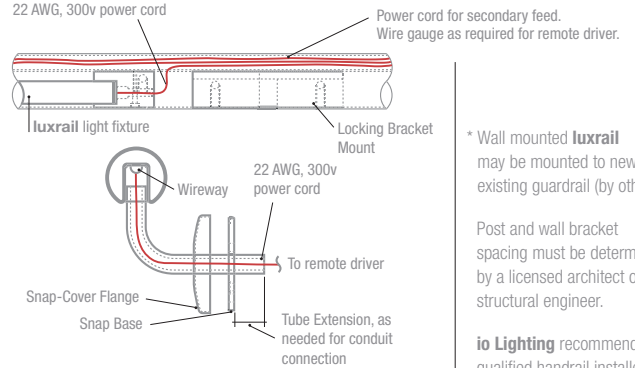
Calculation assumes 12'0" run length. All footcandle values are initial.

POST MOUNT APPLICATION



Note: Will depend on alloy and diameter specifications.

WALL MOUNT DETAILS\*



\* Wall mounted luxrail may be mounted to new or existing guardrail (by others).

Post and wall bracket spacing must be determined by a licensed architect or structural engineer.

io Lighting recommends a qualified handrail installer be on site during install.

LIGHT OUTPUT CONVERSION TABLE

	Standard Output	Mid Output	High Output
2700K White	0.25 <sup>(1)</sup>	0.69 <sup>(1)</sup>	0.94 <sup>(1)</sup>
3000K White	0.27 <sup>(1)</sup>	0.73 <sup>(1)</sup>	1.00 <sup>(1)</sup>
3500K White	0.29 <sup>(1)</sup>	0.78 <sup>(1)</sup>	1.06 <sup>(1)</sup>

Note: Visit [www.iolighting.com](http://www.iolighting.com) or contact an io representative for IES format photometrics.

Light Output / Distributions

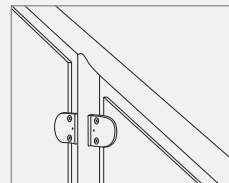
Mounting / Infill Options



PM (POST MOUNTED)



WM (WALL MOUNT INTERMEDIATE)



GLASS INFILL  
(glass provided by others)



STAINLESS STEEL CABLE INFILL  
(only available on flat surfaces)



Order Code

- 0 io
  - 1 1
  - 2 2
  - 3 3
  - 4 4
  - 5 5
  - 6 6
  - 7 7
  - 8 8
  - 9 9
  - 10 10
  - 11 11
1. **PRODUCT FAMILY**  
06 luxrail
  2. **ALLOY / FINISH**  
SSS Stainless steel satin  
SSP Stainless steel polished  
CAA Clear anodized aluminum
  3. **SIZE**  
1 1.66" O.D. (1¼" pipe size) (available in SS only)  
2 1.90" O.D. (1½" pipe size) (available for SS & CAA)
  4. **MOUNTING**  
PMC Post mount concrete  
PMW Post mount wood  
PMS Post mount stone  
WM Wall or guard rail mounted
  5. **INFILL**  
AC Stainless steel cable <sup>(4)</sup>  
GL Glass (provided by others)  
C Custom  
NR Not required
  6. **LIGHT DISTRIBUTION**  
10 10 Degree  
25 25 Degree  
55 55 Degree  
ASYM Asymmetric  
NI Handrail only (not illuminated)
  7. **LIGHT COLOR**  
27K Warm White  
27KMO Warm White  
27KHO Warm White
  8. **LENGTH**  
3K Warm White <sup>(5)</sup>  
3KMO Warm White <sup>(5)</sup>  
3KHO Warm White <sup>(5)</sup>  
35K Warm White  
35KMO Warm White  
35KHO Warm White  
CC Custom Color <sup>(6)</sup>  
GB2 Grab Bar 2' nominal <sup>(6)</sup>  
GB3 Grab Bar 3' nominal <sup>(6)</sup>  
GB4 Grab Bar 4' nominal <sup>(6)</sup>  
GB5 Grab Bar 5' nominal <sup>(6)</sup>  
HR Hand Rail length in Feet / Inches (provide overall length of each handrail section) <sup>(2)(5)</sup>  
HRC Hand Rail Curved length in Feet / Inches (provide overall length of each handrail section) <sup>(2)(5)</sup>
  9. **VOLTAGE / DIMMING**  
1 120v  
2 277v  
3 120v w/dim  
4 277v w/dim  
5 Other (International voltage)
  10. **SPECIFY DRIVER / DIMMING <sup>(1)</sup>**  
Note: If not specified otherwise, io will supply 100 watt drivers. Download Power Supply specification sheet from [www.iolighting.com](http://www.iolighting.com).
  11. \_\_\_\_\_  
CE Available upon request.

1. Power Supply Specification Sheet may be downloaded from [www.iolighting.com](http://www.iolighting.com).  
2. Each handrail application will be custom to accommodate varying field conditions and design requirements. Shop drawings will be required to manage specifics of each handrail section.  
3. White light variance between LEDs is equal to or better than 3-step MacAdam Binning.  
4. Stainless Steel cable available for flat surfaces only.  
5. Detailed elevation drawings of handrail section are required for quote.  
6. Non-standard color temperature and CRI are available. Consult factory for availability.

Footnotes

YouTube  
luxrail applications  
[youtube.com/iolighting](http://youtube.com/iolighting)

**Appendix B – Supporting Material for Acoustical Breadth**

CEREMONIAL COURTROOM ELEVATION - SOUTH

