ENVIRONMENTALLY FRIENDLY, ENERGY EFFICIENT

- Lumen packages comparable to 26W, 32W, 42W CFL and 2x26W CFL with energy savings up to 35%
- Superior-quality white LED light output using Chip on Board technology
- No harmful ultraviolet or infrared wavelengths
- No lead or mercury

800/1300/1500/1700/2300/2800/3300/4000 LUMEN

4″ LED DOWNLIGHT
PARABOLIC LENSED APERTURE

ENERGY STAR

L4 SERIES

Type	Cat. No.

Project:

Notes:

PRODUCT SPECIFICATIONS

Optics
Reflector/Lens: Computer-optimized parabolic reflector with frosted convexed lens regressed into cone provides uniform distribution with no striations • Concealed LED array provides superior aesthetic appeal both on and off
Finishes: Low iridescent specular, semi-specular and satin Alzak® finishes available with integral flange of same finish • See reflector options for other colors and finishes
Baffle: White or black painted deep multi-groove aluminum baffle insert with integral white painted flange and frosted convexed glass lens

Electrical
LED Light Engine: Compact light source delivers uniform illumination without pixilation, enabling excellent beam control • Consistent fixture-to-fixture color temperature within 3 MacAdam ellipses • Replaceable PC board with quick connector mounts directly to heat sink • CRI> 80 • Light engine mounts directly to heat sink and is easily replaceable • Cast aluminum heat sink integrated directly with housing provides superior thermal management to ensure the long life of LED
LED Driver: Power factor >0.9 • Easily replaceable from above or below the ceiling
• Dimmable via 0-10V protocol, increasing efficiency up to 30% while dimming
• For a list of compatible dimmers, see LED-DIM
Life: Rated for 50,000 hours at 70% lumen maintenance

Mechanical
Housing: Low profile, universal housing design installs in suspended grid, plaster or drywall
• Integral cast aluminum heat sink conducts heat away from LED light engine
• Driver accessible from above and below ceiling and can be upgraded to accommodate future technology improvements.
Mounting Frame: Heavy gauge steel lower housing ring accommodates ceilings up to 2″ thick
• For thicker ceilings; consult factory
Mounting Bracket: Mounting brackets have 3″ vertical adjustment and accepts most commercial bar hangers, including our proprietary Tru-Lock bar hangers ● Our one-piece Tru-Lock bar hangers have integral T-bar locking screws and alignment notches for locating and locking fixture in the center or 1/4 tile increments
Junction Box: Over size 4″ x 6″ galvanized steel junction box with (6) ½″ (2) ¾″ knockouts facilitate quick wiring ● Junction box rated for four (4) No. 12 AWG 90° C branch circuit conductors (2-in, 2-out)

Labels and Listings
- UL listed for feed through and damp locations
- UL and cUL, RoHS compliant
- EMI complies with FCC 47, Part 15, Class A
- Energy Star qualified, see back page for designated products
- I.B.E.W. Union made • ARRA Compliant

Warranty: 5 years when used in accordance with manufacturing guidelines.
Product specifications subject to change without notice.

DIMENSIONS

6″

4-1/4″ Dia.
4-3/4″ Dia. Ceiling Cutout
5-1/2″ Dia.

11-3/4″

10-1/2″ (120/277V)
15-1/8″ (347V)
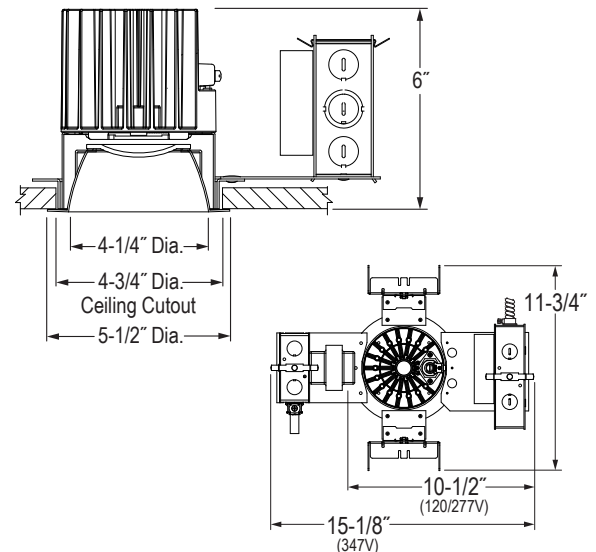
ENGINEERING DATA

Voltage	120V							
Light Engine Lumens	800	1300	1500	1700	2300	2800	3300	4000
CCT	(2700K/3000K/3500K/4000K)							
Input Current	0.075	0.125	0.158	0.183	0.242	0.308	0.300	0.383
Input Wattage	9W	15W	19W	22W	29W	37W	36W	46W
Input Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Power Factor	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Voltage	277V							
Light Engine Lumens	800	1300	1500	1700	2300	2800	3300	4000
CCT	(270K/3000K/3500K/4000K)							
Input Current	0.032	0.054	0.069	0.079	0.105	0.134	0.130	0.166
Input Wattage	9W	15W	19W	22W	29W	37W	36W	46W
Input Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Power Factor	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9

347 Volt available, consult factory.

ORDERING INFORMATION: Rough-in, reflector and accessories each ordered separately.

Example: **L4-15301-G2-BR**

Rough-in	Light Engine Lumens	Color Temp.	Voltage	Generation	Options	
L4	**08** 800 Lumens	**27** 2700K	**■U** Universal	**G2**	**F**	Fuse and Fuse Holder
L4	**13** 1300 Lumens	**30** 3000K	**1** 120V		**CP**	Chicago Plenum
	15 1500 Lumens	**35** 3500K	**2** 277V		**BR**	Emergency Battery Pack W/ Remote Test Switch
	17 1700 Lumens	**40** 4100K	**3** 347V		**♦PD**	Driver compatible with Lutron Programable Dimming EcoSystem®
	23 2300 Lumens				**LDI**	Lumen Depreciation Indicator (Cannot be Used w/ BR Option)
	28 2800 Lumens				**♦FDL**	Forward Phase Dimming Lutron Driver (120V only)
	33 3300 Lumens					
	40 4000 Lumens					

Example: **L400P-CQ-WH**

Reflector	Color Options		Finish	Options	
L400P Open Reflector	**C**	Clear	**Low Iridescent Alzak® Finishes:**	**WH**	White Flange
	G	Gold	**L** Specular	**WET**	Wet Location Listing
	WT	Wheat	**S** Satin		
L400B Baffle	**PT**	Pewter	**Q*** Semi-Specular (*Clear only)		
	BZ	Bronze			
	B	Black	Blank for white & baffle		
	W	White			

Example: **HB-TL**

Accessories	
HB-TL	25″ Tru-Lock grid ceiling bar hangers, Pair
HB-52	52″ C-Channel Bar Hangers, Pair
HB-28	28″ C-Channel Bar Hangers, Pair
LB-27	27″ Linear Bar Hangers, Pair
SCA4-*	Sloped Ceiling adapter

*Angle must be specified when ordering; Available in 5°, 10°, 15°, 20°, 25°, 30° Example: SCA4-20

■800 & 1300 lumen fixtures are universal voltage (120/277V)
♦Not Available for 4000 Lumens
Rev. 3 10/13

Catalog Number: L4-0840-G2; L400P-CL
PHOTOMETRIC REPORT
Test Number: PR08110161
Total Lumen Output: 567 Lumens
Luminaire Efficacy: 65.0 lm/w (4K)
Luminaire Spacing Criteria: 1.08
Luminaire: Clear specular Alzak® reflector with regressed frosted glass lens.
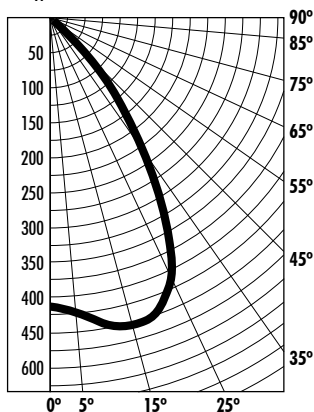**CIE-Type:** Direct

Initial Footcandles

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Footcandles Beam Edge	Beam Diameter
6'	11.6	3.5	8.4'
7'	8.5	2.6	9.8'
8'	6.5	2.0	11.2'
9'	5.2	1.6	12.6'
10'	4.2	1.3	14.0'
11'	3.4	1.1	15.4'
12'	2.9	0.9	16.9'
13'	2.5	0.8	18.3'
14'	2.1	0.6	19.7'
15'	1.9	0.6	21.1'

CCT MULTIPLIER:
(800-2800 Lumens)

27K	3K	35K	4K
.83	.92	.93	Baseline

Candlepower Distribution (Candelas)

Angle	Candela	Lumens
0°	417	
5°	423	40
15°	461	131
25°	416	192
35°	233	146
45°	68	53
55°	4	4
65°	0	0
75°	0	0
85°	0	0

Luminance Data

Angle in Degrees	Candela/M²
45°	10496
55°	743
65°	0
75°	0
85°	0

Zonal Lumen Summary

Zone	Lumens	%Fixture
0-30°	363	64.2
0-40°	510	90.1
0-60°	566	100.0
0-90°	566	100.0
90-180°	0	0.0
0-180°	566	100.0

AVERAGE INITIAL FOOTCANDLES
Reflectances: 80% Ceiling, 50% Walls, 20% Floors

Luminaire Spacing	Room Cavity Ratio RCR1	RCR4	RCR8
5' x 5'	25	20	15
6' x 6'	17	14	10
7' x 7'	13	10	8
8' x 8'	10	8	6
9' x 9'	8	6	5
10' x 10'	6	5	4
11' x 11'	5	4	3
12' x 12'	4	3	3

COEFFICIENTS OF UTILIZATION - % (Zonal Cavity Method)
Effective Floor Reflectance 20%

PCC	80				70				50			30			10			0
PW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	113	110	108	105	111	108	106	104	104	102	101	100	99	98	97	96	95	93
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	86
3	101	95	89	85	99	93	88	84	90	86	83	88	85	82	86	83	80	79
4	96	88	82	77	94	87	81	77	84	80	76	82	78	75	80	77	74	73
5	90	81	75	71	89	80	75	70	79	74	70	77	73	69	75	72	68	67
6	85	76	69	65	84	75	69	65	73	68	64	72	67	64	71	67	63	62
7	81	71	64	60	79	70	64	60	69	63	59	67	63	59	66	62	59	57
8	76	66	60	55	75	66	59	55	64	59	55	63	58	55	62	58	54	53
9	72	62	56	51	71	61	55	51	60	55	51	59	54	51	59	54	51	49
10	68	58	52	48	67	58	52	48	57	51	48	56	51	47	55	51	47	46

Catalog Number: L4-4035-G2; L400P-CL
PHOTOMETRIC REPORT
Test Number: PR08110261
Total Lumen Output: 2746 Lumens
Luminaire Efficacy: 60.3 lm/w (35K)
Luminaire Spacing Criteria: 1.07
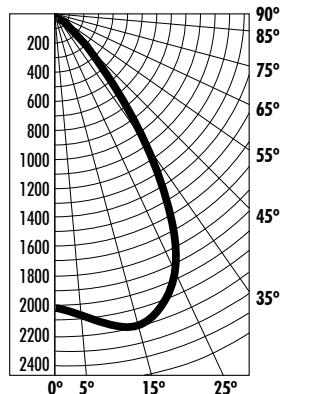**Luminaire:** Clear specular Alzak® reflector with regressed frosted glass lens.
CIE-Type: Direct

Initial Footcandles

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Footcandles Beam Edge	Beam Diameter
6'	56.2	17.0	8.4'
7'	41.3	12.5	9.8'
8'	31.6	9.5	11.2'
9'	25.0	7.5	12.6'
10'	20.2	6.1	14.0'
11'	16.7	5.0	15.4'
12'	14.1	4.2	16.8'
13'	12.0	3.6	18.2'
14'	10.3	3.1	19.6'
15'	9.0	2.7	21.0'

CCT MULTIPLIER:
(3300-4000 Lumens)

27K	3K	35K	4K
.87	.96	Baseline	1.02

Candlepower Distribution (Candelas)

Angle	Candela	Lumens
0°	2024	
5°	2063	197
15°	2205	625
25°	1988	920
35°	1116	701
45°	322	249
55°	41	36
65°	6	6
75°	0	0
85°	0	0

Luminance Data

Angle in Degrees	Candela/M²
45°	49732
55°	7729
65°	1524
75°	3292
85°	0

Zonal Lumen Summary

Zone	Lumens	%Fixture
0-30°	1742	63.5
0-40°	2443	89.1
0-60°	2729	99.5
0-90°	2743	100.0
90-180°	0	0.0
0-180°	2743	100.0

AVERAGE INITIAL FOOTCANDLES
Reflectances: 80% Ceiling, 50% Walls, 20% Floors

Luminaire Spacing	Room Cavity Ratio RCR1	RCR4	RCR8
5' x 5'	121	97	72
6' x 6'	84	67	50
7' x 7'	62	49	37
8' x 8'	47	38	28
9' x 9'	37	30	22
10' x 10'	30	24	18
11' x 11'	25	20	15
12' x 12'	21	17	13

COEFFICIENTS OF UTILIZATION - % (Zonal Cavity Method)
Effective Floor Reflectance 20%

PCC	80				70				50			30			10			0
PW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	118	118	118	118	116	116	116	116	110	110	110	106	106	106	101	101	101	99
1	112	110	107	105	110	107	105	103	103	101	100	100	98	97	96	95	94	92
2	106	101	97	93	104	100	96	92	96	93	90	93	91	88	91	88	87	85
3	101	94	88	84	99	92	88	84	90	86	82	87	84	81	85	82	80	78
4	95	87	81	77	93	86	80	76	84	79	75	82	78	74	80	77	74	72
5	90	81	75	70	88	80	74	70	78	73	69	76	72	68	75	71	68	66
6	85	75	69	64	83	74	68	64	73	68	64	71	67	63	70	66	63	61
7	80	70	64	59	79	69	63	59	68	63	59	67	63	59	66	62	58	57
8	76	66	59	55	74	65	59	55	64	58	54	63	58	54	62	57	54	52
9	72	61	55	51	70	61	55	51	60	54	51	59	54	50	58	54	50	49
10	68	58	51	47	67	57	51	47	56	51	47	56	51	47	55	50	47	45

Energy Star Qualified:

	Product #	Fixture Configurations = Energy Star
ENERGY STAR	L4-(XX)(YY)(Z); L400P-C(F)	**Lumen Package:** 800/1300/1500/1700/2300/2800/3300/4000 (XX = 08, 13, 15, 17, 23, 28, 33, 40) **CCT:** 2700K / 3000K / 3500K / 4000K (YY = 27, 30, 35, 40) **Voltage:** 120V / 277V (Z = 1, 2) **Reflector Finish:** Specular / Satin / Semi-Specular (F = L, S, Q)
ENERGY STAR	347V Only L4-(XX)(YY)3; L400P-C(F) L400P-C(F)	**Lumen Package:** 1500/1700/2300/2800/3300/4000 (XX = 15, 17, 23, 28, 33, 40) **CCT:** 2700K / 3000K / 3500K / 4000K (YY = 27, 30, 35, 40) **Reflector Finish:** Specular / Semi-Specular (F = L, Q)

Fixtures tested to IES recommended standard for solid state lighting per LM-79-08. Photometric performance on a single unit represents a baseline of performance for the fixture. Results may vary in the field.
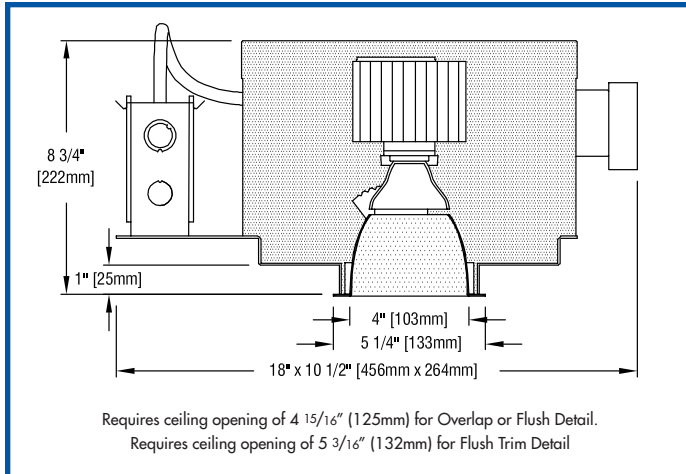
DL LED XSM/4

recessed LED downlight

FULLY SUSTAINABLE – FULLY SUSTAINABLE – FULLY SUSTAINABLE – FULLY SUSTAINABLE – FULLY SUSTAINABLE – FULLY SUSTAINABLE – FULLY SUSTAINABLE

8 3/4" [222mm]
1" [25mm]
4" [103mm]
5 1/4" [133mm]
18" x 10 1/2" [456mm x 264mm]

Requires ceiling opening of 4 15/16" (125mm) for Overlap or Flush Detail.
Requires ceiling opening of 5 3/16" (132mm) for Flush Trim Detail

FEATURES

DL LED XSM/4 is an efficient, 4" aperture, LED downlight powered by one of a number of Xicato® LED modules – including Artist Series and Vibrant Series modules – all of which are distinguished by extraordinary color consistency (within 1x2-step MacAdam ellipse). See tables on the reverse for wattages and efficacies.

Luminaire includes an internal reflector to produce a 20° spot, 40° flood or 60° wide flood beam spread. To allow beam spread to be changed after installation, internal reflectors are also available as accessories.

Precise external reflector design minimizes aperture brightness and provides a shielding angle of 40°. Recess depth is 8¾".

Standard driver of 2000-lumen Artist Series model permits dimming to 10% by a 0-10V dimmer on 120-volt or 277-volt service. Standard driver for all other models permits dimming to 1% by a 0-10V dimmer on 120-volt or 277-volt service.

An optional integral holder permits the use of one or two of a number of Optical Accessories including lenses and color filters.

External reflectors are available in three clear natural aluminum finishes — semi-specular (C), slightly diffuse (V) or fully diffuse (EC) — as well as champagne gold or black Alzak®. Other finishes available on special order.

A LightPlate trim may be used instead of an external reflector.

Luminaire includes a pair of mounting bars (3/4" x 27" C channel). Specialty bars for wood joists and T-bar installations are also available.

APPLICATIONS

Luminaire is recommended for downlighting in commercial, retail and residential spaces.

Luminaire is cCSAus listed as an inherently protected luminaire and does not require a thermal protector. Luminaire is prewired, approved for ten #12 wire 90° branch circuit pull-through wiring and suitable for use in a fire rated ceiling. Luminaire is listed for Damp Location and is RoHS compliant. Removal of the reflector allows access to the junction box.

SPACING REQUIREMENT

The **2000A** model of this luminaire must be spaced 36" apart and 18" from walls, and must have ½" clearance above housing.

MODIFICATIONS AVAILABLE ▼ *See next page*

PRODUCT CODE

For complete product code, list basic unit and select one item from each following box.

Basic Unit DL-XSM2-4DL

Light Output

700 lumens / CRI 97 Artist..	- L07A
1000 lumens / CRI 97 Artist...	- L10A
1000 lumens / CRI 80+..	- L10S
1300 lumens / CRI 97 Artist...	- L13A
1500 lumens / CRI 80+ Vibrant ...... *3000K only*	- L15V
1500 lumens / CRI 80+	- L15S
2000 lumens / CRI 97 Artist … Note: Spacing Requirements	- L20A
2200 lumens / CRI 80+ Vibrant ...... *3000K only*-	- L22V
2200 lumens / CRI 80+..	- L22S

Light Color

2700 K...	- 27K
3000 K...	- 30K
3500 K...	- 35K
4000 K...	- 40K

Beam Spread Reflector *(specify one to ship with fixture)*

20° spot	- 20D
40° flood	- 40D
60° wide flood	- 60D

Voltage: standard luminaire operates on either 120 or 277 service

Reflector Color and Detail

	Overlap	Flush	Trim Flush*
Semi-specular Clear	COL	CFL	CTF
Slightly diffuse Clear	VOL	VFL	VTF
Fully diffuse Clear	ECOL	ECFL	ECTF
Champagne Gold	GOL	GFL	GTF
Black	BOL	BFL	BTF

Other reflector finishes available on special order.

Standard reflector flange continues reflector finish. White painted flanges and custom painted flanges are available on special order. Add WF (white flange) or CCF (custom color flange).

Trim Flush reflector trim requires the use of a **plaster ring Accessory (see below).*

A LightPlate may be ordered instead of a standard reflector above (see next page).

LightPlate **Downlight Spot**, white.............DP-OL..............DP-FL...........DP-TF

Custom painted trims for LightPlate are available on special order. Add –CC

OPTIONS *Specify by adding to the basic unit.*

Dimmable ...**2000A models:** standard driver dimmable to10% with 0-10V dimmer on 120 or 277 volt service **all other models:** standard driver dimmable to 1% with 0-10V dimmer on 120 or 277 volt service

Dimmable to 1% with Lutron driver, compatible with Lutron 3-wire fluorescent dimmer or EcoSystem Bus Control and suitable for 120 or 277 volt operation ....– D3D-LU

Integral holder for one or two Optical Accessories (see over) ....– G

Emergency battery pack Fixture footprint increases to 21 1/8" x 10½" .... – EM

ACCESSORIES *Specify as separate line item.*

Plaster ring allows use of 4 7/8" OD Trim Flush (-TF) reflector in sheetrock ceiling: 5 3/16" dia hole required ....– TF RING/4

EXTRA REFLECTORS *Specify as separate line items.*

20° spot reflector	XSM-REF20
40° flood reflector	XSM-REF40
60° wide flood reflector	XSM-REF60

OPTICAL ACCESSORIES ▼ *See next page*

DL LED XSM/4

EDISON PRICE
LIGHTING

MODIFICATIONS AVAILABLE

Contact factory with quantity for pricing; orders may require shop drawing approval.

+DOD: luminaire suitable for **high humidity** environments; add +DOD to Product Code.

+MAR: reflector suitable for **marine** environments; add +MAR to Product Code.

+TR: reflector prepared for **top relamping**; add +TR to Product Code.

LIGHTPLATE *LightPlate may be used instead of standard reflectors.*

DOWNLIGHT SPOT

straight-cut baffle for downlighting
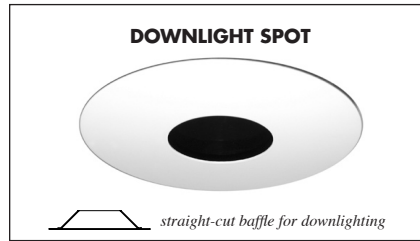
OPTICAL ACCESSORIES *Specify as separate line*

All are 3 ¾" (95mm) diameter.
Lenses and filters are glass; screens are aluminum.

prismatic lens (Solite) PLS/3.75
55° spread lens LENS/3.75
40° x 70° spread lens LENS/3.75-4070
beam smoother CLR/3.75
33% light reduction screen SCR33/3.75
50% light reduction screen SCR50/3.75

color filters

surprise pink PNK/3.75
daylight blue..DAY/3.75
amber AMB/3.75
blue BLU/3.75
green GRN/3.75
red RED/3.75

PHOTOMETRIC REPORT (tested per IESNA LM-79-2008)

(LTL) *Report No. 226175. Original Luminaire Testing Laboratories, Inc. (LTL) test reports furnished upon request.*

Luminaire .... recessed LED round downlight with semi-specular clear aluminum reflector
Lamp .... Xicato XSM LED with 40° beam spread integral reflector, 3000K CCT, 1500 lumens
Lamp Life .... rated 50,000 hours based on L70/B50 criteria. LM80 report by LED manufacturer furnished upon request
Spacing Criteria .... 0.5 (0.7 for 60° reflector, 0.4 for 20° reflector)
Luminaire light output........ 1244 lumens

CANDLEPOWER DISTRIBUTION *(Candela)*

Vertical Angle	Horizontal Angle
	0
0	4312
5	3719
15	2160
25	554
35	46
45	0
55	0
65	0
75	0
85	0
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0 - 30°	1196	96.1
0 - 40°	1243	99.9
0 - 60°	1244	100.0
0 - 90°	1244	100.0
90 -180°	0	0.0
0 -180°	1244	100.0

REFLECTOR COLOR MULTIPLIERS

Semi-specular clear (C)	1
Slightly diffuse clear (V)	.95
Fully diffuse clear (EC)	.88
Champagne gold clear (G)	.95
Black (B)	.49
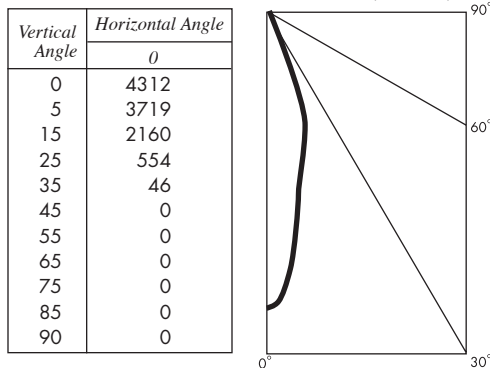
STANDARD (0-10V DIMMING) DRIVER INFORMATION *UL Class 2, dry and damp location*

Voltage	120	277
Input Watts (700A/1000A/1300A/2000A/1000/1500/2000/2200 lumens)	16/21/32/47/15/23/34	16/21/32/47/15/23/34
Input Current (A) (700A/1000A/1300A/2000A/1000/1500/2000/2200 lumens)	.13/.18/.27/.39/.13/.19/.28	.06/.08/.12/.17/.05/.08/.12
Output Current (mA)	500/700/1050	500/700/1050
Min. Power Factor	>0.9	>0.9
Operating Temperature Range (F)	-4 to 122	-4 to 122

LIGHT OUTPUT MULTIPLIER

LED Light Engine	Light Output Multiplier	EM Light Output Multiplier (90-minute run)
700 Lumens Artist	.45*	.12*
1000 Lumens Artist	.57*	.16*
1300 Lumens Artist	.76*	.16*
2000 Lumens Artist	1.10*	.26*
1000 Lumens standard	.66*	.26*
1500 Lumens standard & Vibrant	1	.40*
2200 Lumens standard & Vibrant	1.30*	.40*

*estimated values

LUMINANCE DATA

Vertical Angle	Candela/m²
45	0
55	0
65	0
75	0
85	0

LUMINAIRE LIGHT OUTPUT AND EFFICACY *(40° beam spread integral reflector)*

| LED Light Engine	Luminaire Light Output	Luminaire Efficacy (lms/watt)	System Wattage
700 Lumens Artist	556*	36	16
1000 Lumens Artist	704*	34	21
1300 Lumens Artist	945*	29	32
2000 Lumens Artist	1363*	29	47
1000 Lumens standard	826*	55	15
1500 Lumens standard & Vibrant	1244	53	23
2200 Lumens standard & Vibrant	1616*	48	34

*estimated values

FXLED150SF/PCS

Ultra high output, high efficiency LED floodlight with wide NEMA type 6H x 6V beam spread. Patent Pending airflow technology ensures long LED and driver lifespan. Use for general and security lighting for large areas, building facades, signs and landscapes.

Color: Bronze   Weight: 25.0 lbs
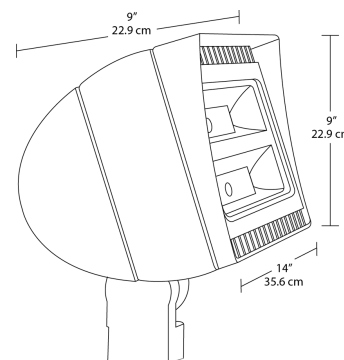
LED Info

Watts:	150W
Color Temp:	5000K (Cool)
Color Accuracy:	65
L70 Lifespan:	100000
LM79 Lumens:	14,440
Efficacy:	93 LPW

Driver Info

Type:	Constant Current
120V:	1.31A
208V:	N/A
240V:	N/A
277V:	N/A
Input Watts:	155W
Efficiency:	97%

Technical Specifications

UL Listing:
Suitable for wet locations. Suitable for mounting within 1.2m (4ft) of the ground.

Lifespan:
100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

IP Rating:
Ingress Protection rating of IP66 for dust and water.

LEDs:
Multip-chip, high-output, long-life LEDs

Photocell:
120V Swivel Photocell Included. Photocell is compatible with 120V.

Drivers:
Two Drivers, Constant Current, Class 2, 2000mA, 100-277V, 50-60Hz, 1.1A, Power Factor 99%

THD:
5.3% at 120V, 13.1% at 277V

Ambient Temperature:
Suitable for use in 40°C (104°F) ambient temperatures.

Effective Projected Area:
EPA = 2

Cold Weather Starting:
The minimum starting temperature is -40°F/-40°C.

Thermal Management:
Superior thermal management with external Air-Flow fins.

Housing:
Die-cast aluminum housing and door frame

Mounting:
Heavy-duty Slipfitter for 2 3/8"OD pipe.

Color Consistency:
7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

Color Stability:
LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period.

Color Uniformity:
RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2011.

Reflector:
Specular, vacuum-metalized polycarbonate

NEMA Type:
6H x 6V

Field & Beam Angles:
Horizontal Beam Angle (50%): 91.8°, Vertical Beam Angle (50%): 73.5° Horizontal Field Angle (10%): 121.0°, Vertical Field Angle (10%): 108.0°

Gaskets:
High-temperature silicone gaskets

Finish:
Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contains no VOC or toxic heavy metals.

RAB LIGHTING

Green Technology:
Mercury and UV free, and RoHS compliant. Polyester powder coat finish formulated without the use of VOC or toxic heavy metals.

IESNA LM-79 & LM-80 Testing:
RAB LED luminaries have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80, and have been received the Department of Energy "Lighting Facts" label.

DLC Listed:
This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.

Replacement:
The FXLED150 replaces 400W Metal Halide Floodlights.

California Title 24:
FXLED150 complies with California Title 24 building and electrical codes.

Warranty:
RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish.

Patents:
The design of FXLED150 is protected by patents pending in US, Canada, China, Taiwan and Mexico.

Country of Origin:
Designed by RAB in New Jersey and assembled in the USA by RAB's IBEW Local 3 workers.

Buy American Act Compliant:
This product is a COTS item manufactured in the United States, and is compliant with the Buy American Act.

Recovery Act (ARRA) Compliant:
This product complies with the 52.225-21 "Required Use of American Iron, Steel, and Manufactured Goods-- Buy American Act-- Construction Materials (October 2010).

Trade Agreements Act Compliant:
This product is a COTS item manufactured in the United States, and is compliant with the Trade Agreements Act.

GSA Schedule:
Suitable in accordance with FAR Subpart 25.4.

80
Efficiency

Bionic Modular 4" System Recessed Linear Seamless

6 7/16"
5"
4 1/16"
6"
1 1/16"

Regressed 1" (T-Bar shown)
D1X

5 7/16"
5"
4 1/16"

Flush (hard ceiling shown)
D1X
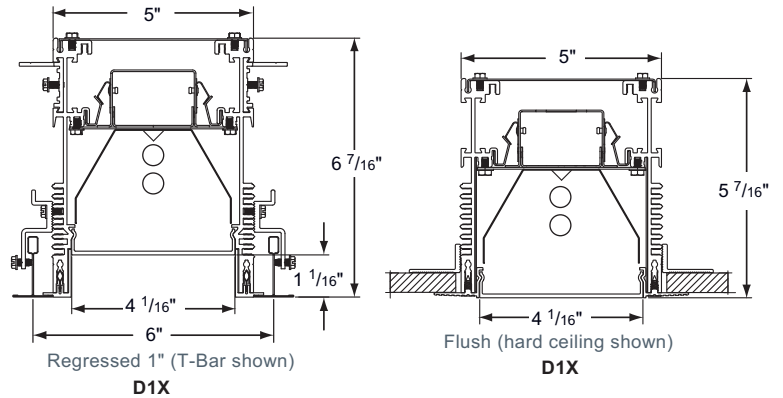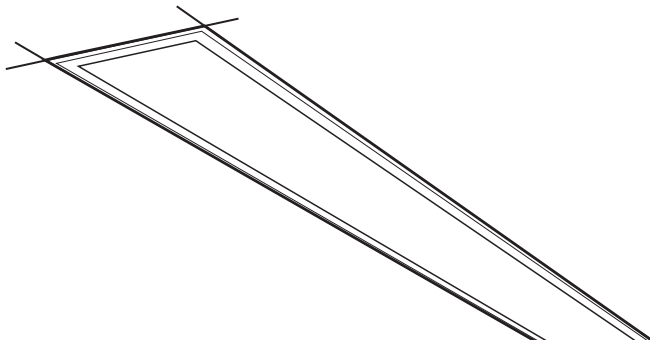
ordering - Bionic STANDARD system – SEAMLESS lamping (BIO-SM)

series/ style	lamp rows	nominal length	shielding		color/finish*		distribution	circuiting	voltage	ceiling system		options
								SC				
Bio-SM	1SM*	02'	ABW*	acrylic batwing lens	TMW†	textured matte white	D1X* symmetric extended performance (ABW lens only)	SC single circuit	120	X1†	exposed T-bar 15/16	EML*
FLSH flush lens	1SMHO*	03'	SAL	satin acrylic lens	YGW	gloss white			277	X1m†	exposed T-bar 9/16	EMH*
	*T5 lamp	04'			Y_	premium color			347†	X2†	dimensional T-bar Armstrong Interlude®	DM
REG 1" regressed lens		06'	SPL	silver parabolic louver	CC	custom color	*1 lamp only - utilizes Fusion Optics		UNV*†	X6	slot grid	RSE
		08'							*120-277 †not available with MR16's	X3	hard ceiling flange trim	10THD
		R__*	*D1X distribution only		*indicates color of flange trim †standard					X7BF	hard ceiling (trimless mud-over backer flange)	B__
		*row length										FH
										M	mixed ceiling (contact factory)	M1 12" MR16 module (adj.) 1/50w (max) lamp
												M2 12" MR16 module (adj.) 2/50w (max) lamp
										†Techzone™ compatible		M4 cross MR16 module (adj.) 1/50w (max) lamp
												C2 90° 2-way corner w/acrylic lens
												C3 T-shape 3-way connector, non-luminous
												CX cross 4-way connector, non-luminous
												C8 wall-to-ceiling connector
												*4' minimum

Applications Lobbies, hallways, open offices, small offices

Features A comprehensive 4" Recessed Linear system. See Perimeter and Wall Wash for other distributions.

Construction Universal housing for easy installation, reflectors are made from formed steel or specular aluminum and made of lightweight extruded aluminum. Highly adjustable sliding T- and L-bar brackets for precise ceiling alignment and multiple installation options. Patent pending double dovetail channel for superior alignment along continuous runs.

Finish The trim is textured matte white (TMW) or optional gloss white (YGW) using polyester powder paint. Refer to Controls and Options section for paint colors.

Electrical T8 fixtures have instant-start electronic ballasts with less than 20% THD. Fixtures are U.L. Damp labeled (non emergency) and I.B.E.W. manufactured. Maximum ballast size available: 1.7"W x 1.18"H.

Options **EML**: emergency battery (600-700 lumens); **EMH**: emergency battery (1100-1400 lumens); **DM**: dimming (consult factory); **RSE**: rapid-start electronic; **10THD**: ballast with < 10% total harmonic distortion; **B_**: specific ballast, specify manufacturer and catalog number (consult factory); **FH**: fixture fusing slow blow; **M1**: 12″ MR16 module with one (1) adjustable 50w (max) lamp; **M2**: 12″ MR16 module with two (2) adjustable 50w (max) lamps; **M4**: Cross MR16 module with one (1) adjustable 50w (max) lamp; **C2**: 90° 2-way corner with acrylic lens; **C3**: T-shape 3-way connector, non-luminous metal; **CX**: cross 4-way connector, non-luminous metal; **C8**: wall-to-ceiling connector with acrylic lens

Prudential reserves the right to change design specifications or materials without notice.

Bionic Modular 4" System

80
Efficiency

photometric data (ABW + D1X)

BIO-FLSH-SMT5-04'-ABW-TMW

Report # L0811071   D=80.90%   I=0.0%
Spacing Criteria: Along 1.16; Across 1.62
Lamp Lumens: 2600   Input Watts: 32.75
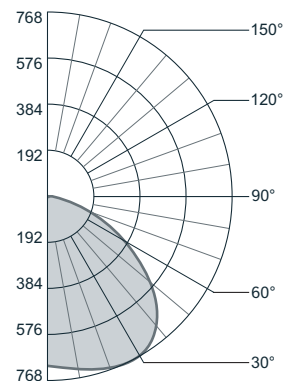
Candlepower Summary

Vertical Angle	Horizontal Angle				
	0°	22.5°	45°	67.5°	90°
0	661	661	661	661	661
5	655	658	662	667	671
10	640	648	664	680	689
15	617	632	666	695	708
20	587	611	663	704	721
25	550	586	655	710	733
30	507	555	642	711	737
35	475	520	624	701	726
40	461	480	597	670	685
45	412	437	558	615	617
50	363	388	508	536	521
55	315	340	452	452	429
60	271	285	381	358	335
65	224	225	301	269	251
70	182	166	222	192	179
75	86	110	146	125	117
80	48	61	80	70	66
85	20	26	32	30	29
90	0	0	0	0	0

Zonal Lumen Summary

Zone	% Lamp	% Luminaire
0-90	80.90	100.00
90-180	00.00	00.00

Efficiency = 80.90%

Luminance Summary (cd/m²)

Angle	0°	45°	90°
45	4187	6436	7116
55	3853	6427	6100
65	3512	5809	4844
75	2710	4601	3687
85	1872	2994	2714

Coefficients of Utilization (%)

Floor effective floor cavity reflectance = .20

Ceiling	80				70				50		
Wall	70	50	30	10	70	50	30	10	50	30	10
RCR 0	96	96	96	96	94	94	94	94	90	90	90
1	88	84	81	78	86	82	79	76	79	76	74
2	80	73	68	63	78	72	67	63	69	65	61
3	73	64	58	53	71	63	57	52	61	55	51
4	67	57	50	44	65	56	49	44	54	48	43
5	61	51	43	38	60	50	43	38	48	42	37
6	56	46	38	33	55	45	38	33	43	37	33
7	52	41	34	29	51	41	34	29	39	33	29
8	49	38	31	26	47	37	30	26	36	30	26
9	45	34	28	23	44	34	27	23	33	27	23
10	42	32	25	21	41	31	25	21	30	25	21

Snap-in ceiling options
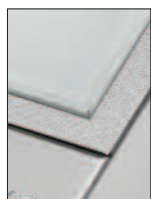
X1 T-Bar 15/16"

X1m T-Bar 9/16"

X2 Interlude

X6 slot grid

X3 hard ceiling
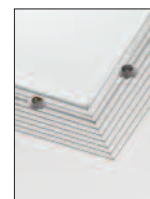
X7BF hard ceiling mud-over

.44"   1"

.64"   1"

.64"   1"

.64"   1"

.67"

1.125"

Connectors

(m1) 12" 5"
(1) MR 16

(m2) 12" 5"
(2) MR 16

(c2) 90° 12" 5"

(c3) "T" 12" 5"

(cx) 5" "Cross" 12"

80
Efficiency
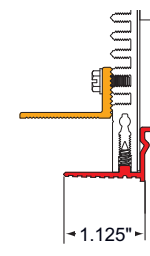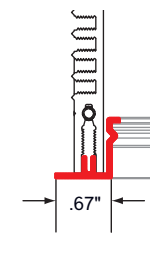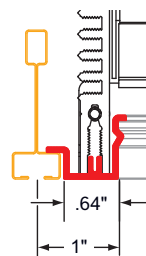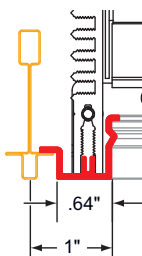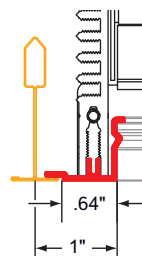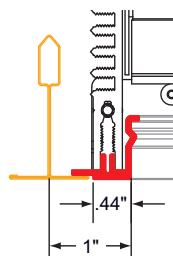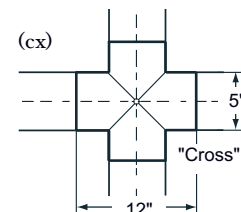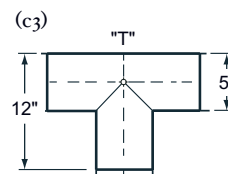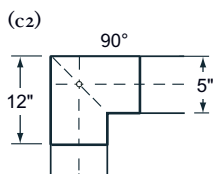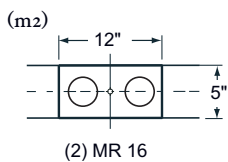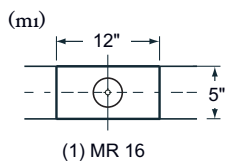
Bionic Modular 4" System Recessed   Seamless

application

Install Options Suspension

❶ Housing drilled for 1/4-20

❸ Hang wire from adjustable "T" bracket

❷ Hang 1/4-20 from adjustable hanger bracket
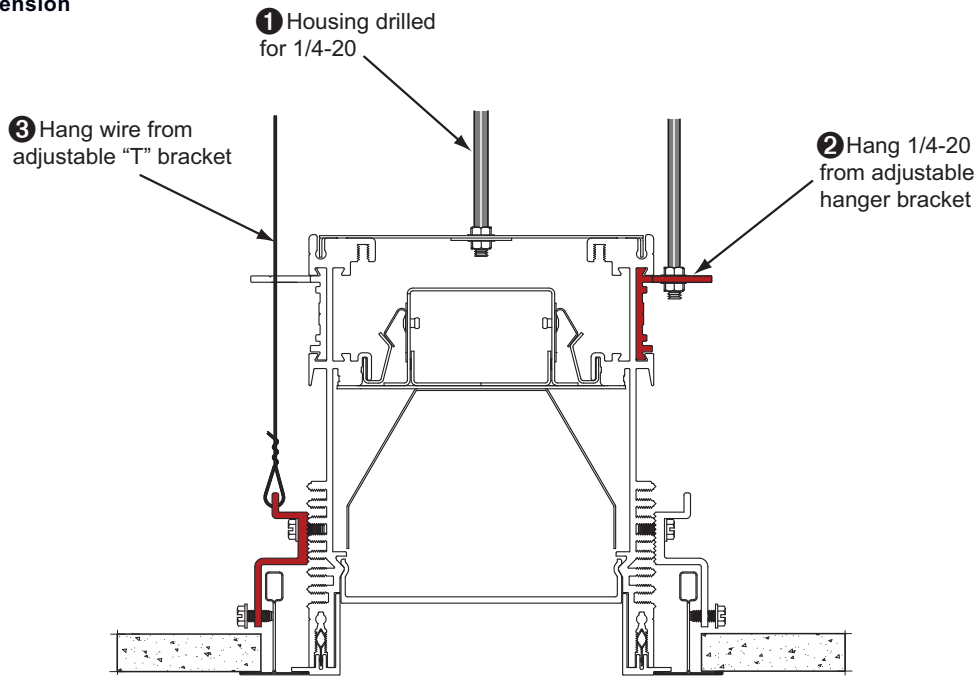
Dovetail Installation Detail

Double Dovetail channel - can be installed from inside (c-channel) or outside for superior alignment

Hanging Drywall Detail

Option to hang drywall from backer flange X7BF
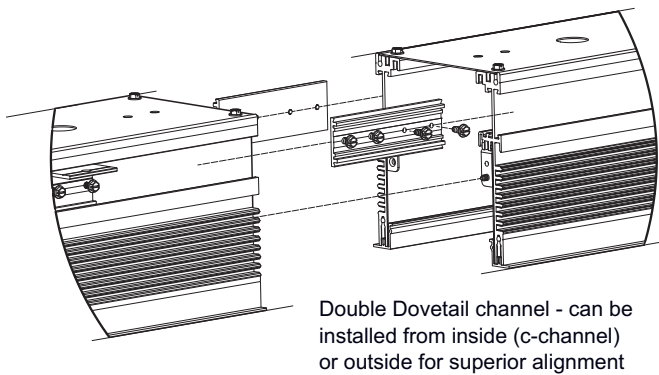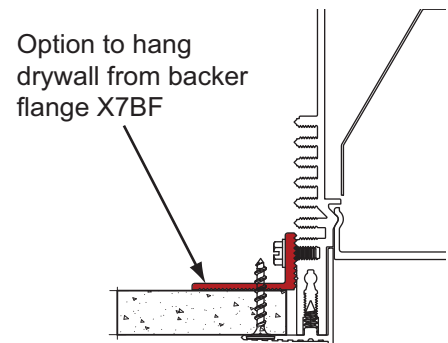
Mounting Detail (1) Housing Detail for ¹/₄"-20

X
Y   Y
= ¹/₄" knockout
CL
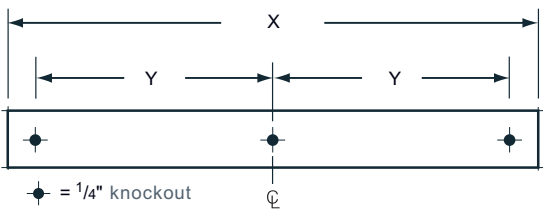
Mounting Conversion Chart

X=2'	Y=9" from centerhole
X=3'	Y=15"
X=4'	Y=21"
X=5'	Y=27"
X=6'	Y=33"
X=7'	Y=39"
X=8'	Y=45"

Prudential reserves the right to change design specifications or materials without notice.

Prudential Lighting 1737 E. 22nd St. Los Angeles, CA 90058

application

MR16 cross section

30°

**60°
Total**
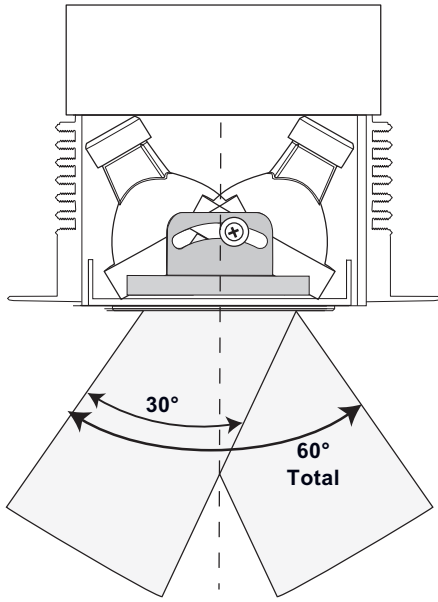
Max. tilt angle of 30°
Max. rotation of 363°
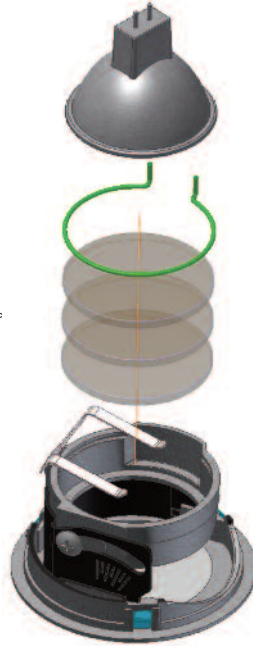
MR16 module holds up to 3 lens' and a lens locking ring allows for precise settings to be maintained during lamp changes

Bionic Modular System

BIONIC SEAMLESS RUN INFORMATION

nominal run length (ft.)	Seamless T5/T5HO lamp quantity			unlit ends (inches)
	2´	3´	4´	
6		2		1.2
7		1	1	1.3
8			2	1.4
9		3		1.8
10		2	1	1.9
11		1	2	2.0
12		4		2.4
13	1	1	2	2.5
14		2	2	2.6
15		1	3	2.7
16			4	2.8
17		3	2	3.2
18	1		4	3.3
19		1	4	3.4
20			5	3.5
21		7		4.3
22		2	4	4.0
23		1	5	4.1
24			6	4.2
25		3	4	4.6
26		2	5	4.7
27		1	6	4.8
28			7	4.9
29	1	1	6	5.3
30		2	6	5.4
31		1	7	5.5
32			8	5.6
33		3	6	6.0
34		2	7	6.1
35		1	8	6.2
36			9	6.3
37	1	1	8	6.7
38		2	8	6.8
39		1	9	6.9
40			10	7.0
41		3	8	7.5
42		2	9	7.5
43		1	10	7.6
44			11	7.7
45	1	1	10	8.1
46		2	10	8.3
47		1	11	8.3
48			12	8.4
49		3	10	8.9
50		2	11	9.0

Prudential reserves the right to change design specifications or materials without notice.

FINELITE

High Performance Wall (HPW-LED)

INDUSTRY BEST 10 YEAR WARRANTY HPR-LED

2011 PROGRESS Report SELECTION

HPR-LED Collection
2011 IES Progress
Report Selection

Date	
Project	
Type	
Comments	

DESCRIPTION

HPW-LED is a high performance recessed asymmetric LED wall wash that delivers excellent visual comfort and uniform vertical illumination for school and office applications.

Mid-powered LEDs $T_j \leq 60°C$

SHIELDING:

HPW-LED is standard with a frosted lens for glare-free lighting and a smooth distribution on the vertical surface. All lenses are UV-stabilized and impact resistant virgin acrylic.
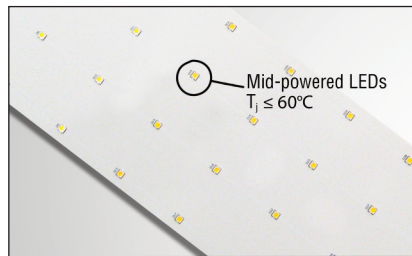
THERMAL MANAGEMENT:

Mid-powered LEDs allow heat to be fully dissipated without the need for additional heat sinks.
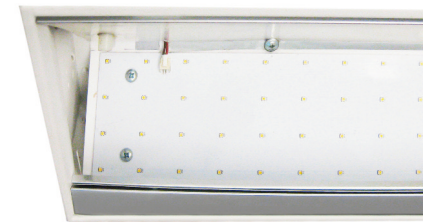
100% SERVICEABLE FROM BELOW:

The light engine and driver can be easily changed from below ceiling – and they are simple to install.

ORDERING GUIDE

Sample Number: HPW-LED - 4'- FR - LED - 4000K - 277 - SC - C1

HPW-LED

Finelite Series **HPW-LED**
Length (2', 4', or 8')
Lens Optic (FR-Frosted)
Light Engine (LED)
LED Color Temperature (3000K, 3500K, 4000K)
Driver (120, 277V)
Circuiting (SC-Single Circuit)
Mounting (C1-1" T-Bar, C2-9/16" T-Bar, C3-Screw Slot, DW-Drywall Kit)

FINELITE

LED

High Performance Wall (HPW-LED)

INDUSTRY BEST
10 YEAR
WARRANTY
HPR-LED

PHOTOMETRY

HPW-1-LED
82.5 Lumens Per Watt
3070 Lumens/37.2 Watts
CRI: 82
R9: 5
CCT: 4000K
ITL LM79 Report 74757
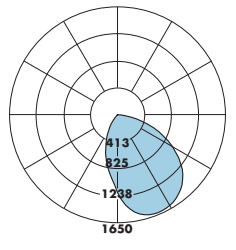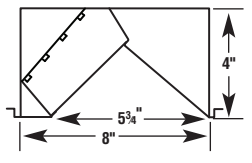
4"
5¾"
8"

413
825
1238
1650

— Refer to www.finelite.com for additional photometry and product information.

CANDLEPOWER SUMMARY					
	0.0	67.5	45	22.5	90	Flux
0	1190	1190	1190	1190	1190	
5	1380	1258	1325	1346	1184	112
15	1573	1323	1477	1546	1128	319
25	1608	1317	1486	1575	1025	470
35	1551	1215	1395	1510	883	545
45	1397	1039	1232	1356	716	545
55	1135	828	1002	1109	535	479
65	772	580	700	760	347	356
75	388	331	377	400	178	198
85	52	82	71	64	42	45
90	0	0	0	0	0	

PHOTOMETRY

HPW-1-LED
79.7 Lumens Per Watt
2980 Lumens/37.4 Watts
CRI: 84
R9: 15
CCT: 3500K
ITL LM79 Report 74756
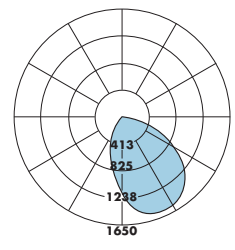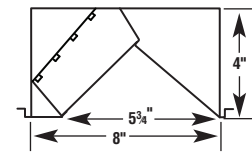
4"
5¾"
8"

413
825
1238
1650

— Refer to www.finelite.com for additional photometry and product information.

CANDLEPOWER SUMMARY					
	0.0	675	45	22.5	90	Flux
0	1155	1155	1155	1155	1155	
5	1338	1223	1285	1309	1152	109
15	1528	1286	1434	1499	1098	311
25	1565	1279	1443	1532	998	458
35	1512	1177	1357	1470	861	531
45	1358	1009	1195	1320	696	529
55	1097	797	973	1071	520	464
65	744	556	678	736	338	344
75	382	316	363	378	175	191
85	52	76	73	63	42	44
90	0	0	0	0	0	

CEILING SYSTEM INFORMATION

9/16" T-Bar   **15/16" T-Bar**   **Screw Slot T-Bar**

WIRING ACCESS DETAIL

WIRING ACCESS PLATE

KNOCKOUTS 7/8"
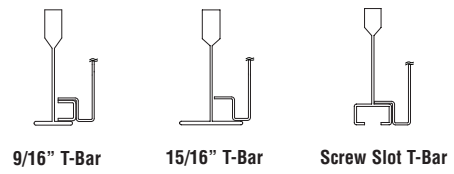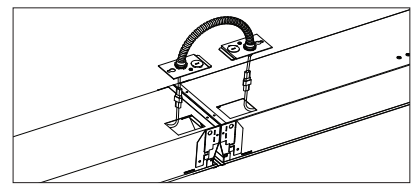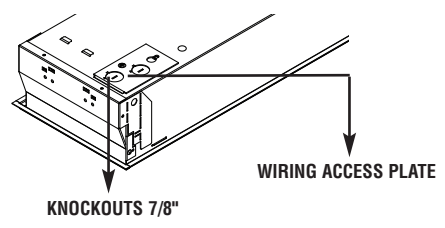
QUICK CONNECT HARNESS:
Factory-supplied quick connect harness reduces installed costs.

SPECIFICATIONS

CONSTRUCTION: Fixture assembly constructed using die-formed, 20-gauge, cold-rolled steel housing and ends. Lens and drivers are easily removable from below ceiling without the need for tools. The ballast compartment is also accessible from below ceiling by removing the reflector cover. Seismic brackets are integrated into the fixture assembly.

LUMINAIRE LENGTHS: Luminaires are available in 2', 4', and 8' section lengths and can be joined together with factory supplied plug together wiring harnesses.

REFLECTORS: Reflector is die-formed 25-gauge Alanod 8516GP semi-specular aluminum with 94% high reflectance finish.

OPTICAL SYSTEM: Luminaires are standard with frosted lenses. All lenses are UV-stabilized and impact resistant virgin acrylic. Frosted lenses are 0.120" thick.

LIGHT ENGINE: HPW-1-LED 4' (4000K) delivers 3087 lumens at 37.5W. HPW-1-LED 4' (3500K) delivers 2807 lumens at 36.6W. HPW-1-LED 4' (3000K) delivers 2720 lumens at 36.8W. Light engine is made up of high performance mid-powered LEDs and is designed to distribute heat properly to maximize the life of the LED. LED color temperature: 3000K, 3500K or 4000K. CRI: 84 (4000K), 84 (3500K), 86 (3000K). R9: 16 (4000K), 15 (3500K), 30 (3000K).

DRIVER: High performance LED driver. Driver is fully accessible from below the ceiling. *120/277V. Power Factor = 90.6% (4000K), 91.1% (3500K), 94% (3000K). Contact factory for Emergency Battery backups. Total harmonic distortion : < 20%. Input current: 0.333 @ 120V.
*Driver can be wired as dimming or non-dimming. Dimming is compatible with 0-10v controls with a range of 100-20%.

ELECTRICAL: IC-Rated for all lamping. Optional Chicago Plenum available. Contact factory.

MOUNTING: Standard flange design works with most lay-in ceiling types. Integral pry out tabs secure luminaire to ceiling grid. Support to structure locations on each corner. Consult local code for appropriate support to structure recommendations. Optional drywall kit available.

FEED: 18-gauge wire standard. Quick connect harnesses provided for row configurations.

FINISH: Housing assembly painted with Signal White powder coat finish.

WEIGHT: 2' - 14 lbs, 4' - 18 lbs, 8' - 30 lbs.

LABELS: Fixtures and electrical components are ETL certified to UL and C-UL standards. In accordance with NEC code 410.73 (G) this luminaire contains an internal driver disconnect.

WARRANTY: HPW-1-LED comes standard with a 10-year, worry-free warranty on all components.

winline surface linear 104/106 dry

fixed mount

adjustable mount
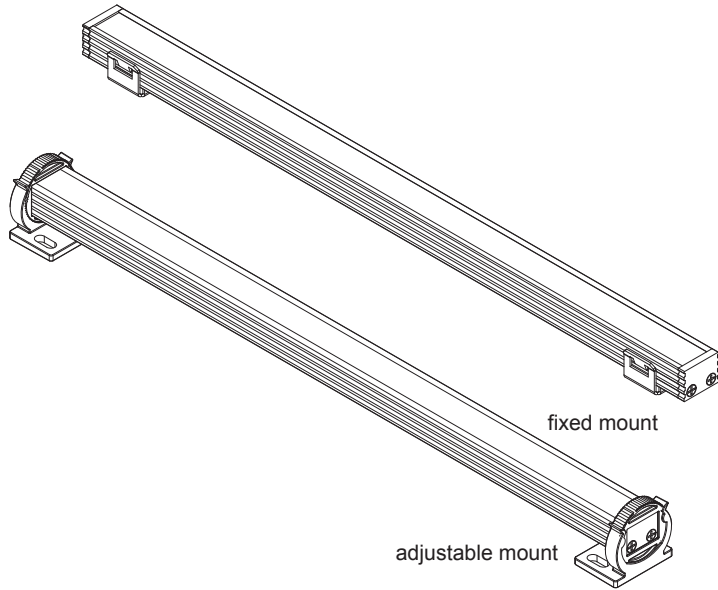
The **Winline 100 Series** are small scale linear LED luminaires and were designed to be the most powerful, reliable, and easiest to implement linear LED solution available. The model WSL104/106 is a high performance luminaire with robust construction suitable for interior illumination.

Beam Spreads: Model 104/106 is available in 30 and 100 degree beam spreads. See page 4 for photometric data.

Color & Light Output: The 100 Series utilizes Nichia 757 white LEDs in four standard color temperatures. Model 104/106 features (16) LEDs/ft.

100 Series	Model 104		Model 106	
Color Temperature	lm/ft	W/ft	lm/ft	W/ft
ANSI-2700K White	140	3.2	281	6.2
ANSI-3000K White	166	3.2	331	6.2
ANSI-3500K White	172	3.2	344	6.2
ANSI-4000K White	182	3.2	368	6.2

Results based test LTL 22006 100° beam spread
Note:
LM79 Tests- see page 4.

Power: The Winline 100 series operates on 24VAC using magnetic transformers. A wide range of remote transformers are available in 120V and 277V primary.

Dimming: Used with remote mounted 24VAC magnetic transformers which can be dimmed with commonly available low voltage magnetic dimming equipment.

Mounting & Adjusting: Both fixed and adjustable mounts allow the 100 Series to be used almost anywhere. The installer locates and fastens the mount clip, runs power feed lines, connects the fixture's wire leads to the feed lines and snaps the fixture in place. The low profile fixed mount is only 1/8" high and the adjustable mount allows for 300 degree rotation around the centerline of the fixture. See pages 2-3 for more mounting and adjustment information.

Operating Temperature: Minimum and maximum ambient air temperatures around this luminaire shall not exceed -22°F to 122°F (-30°C to 50°C). Any application of this product should also take into consideration air flow and ventilation to ensure performance and reliability.

Winona Lighting reserves the right to make design changes without prior notice.

Refer to the Winline Application Guide (www.winonalighting.com/products/ commercial-led-lighting/led_linear/104-106) for more product detail.

Weight:

12" - .31 lbs	36" - .84 lbs
18" - .44 lbs	42" - .98 lbs
24" - .58 lbs	48" - 1.11 lbs
30" - .71 lbs	

Listing: ETL LISTED cULus 3190865

Winline 104/106 is ETL listed for dry location. Complies with UL Standard 2108

RoHS COMPLIANT

Winline Surface Linear - **WSL** | **WSL**
series

model 104 dry - **104**
model 106 dry - **106**
model

Total Run Length in Feet
offered in 6" increments starting at 12"
ex. 54 FT= 54 foot run
or
Preconfigured Run Length Code
see page 5
or
To Be Determined
TBD when run length unknown
run length code

30° - **30**
100° - **100**
beam spread

ANSI-binned 2700K - **27K**
ANSI-binned 3000K - **30K**
ANSI-binned 3500K - **35K**
ANSI-binned 4000K - **40K**
LED code

non-dimming 24 volt AC - **ND24V**
dimming 24 volt AC - **DM24V**
voltage

fixed - **F**
adjustable - **A**
mount

natural (type III) anodized aluminum - **NAA**
semi gloss black paint - **SGB**
semi gloss white paint - **SGW**
custom paint finish - **CPF**
finish

none - **X** | **X**
options

standard - **STD**
modified - **MOD**
special

Describe Modification:

The Winline 100 Series is available in lengths up to 48" in 6" increments starting at 12".

Mounting

The 100 Series can be mounted end-to-end with no shadows between units. Two unique mounting methods allow for flexible, quick and easy installation. Both mounts can can be installed in any position.
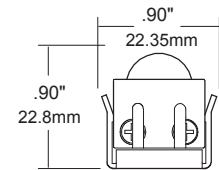
Fixed Mount

Nominal Length	Installed Length	
12"	12.39"	314.71mm
18"	18.39"	467.12mm
24"	24.39"	619.51mm
30"	30.39"	771.91mm
36"	36.39"	924.31mm
42"	42.39"	1076.71mm
48"	48.39"	1229.12mm

Luminaires can be mounted as close as .125" min.(3.18mm)

Fixed Mount

mount clips can be mounted anywhere along luminaire

30° Fixed Mount

.90"
22.35mm

.90"
22.8mm

100° Fixed Mount

.90"
22.80mm

.69"
17.64mm
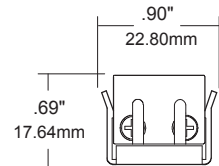
Adjustable Mount

Nominal Length	Installed Length	
12"	12.52"	318.01mm
18"	18.52"	470.41mm
24"	24.52"	622.81mm
30"	30.52"	776.21mm
36"	36.52"	927.61mm
42"	42.52"	1080.01mm
48"	48.52"	1232.41mm

Luminaires can be mounted as close as .125" min.(3.18mm)

Adjustable Mount

screw holes located .5"(12.70mm) from end of luminaire

30° Adjustable Mount

1.19"
30.18mm

1.17"
29.81mm
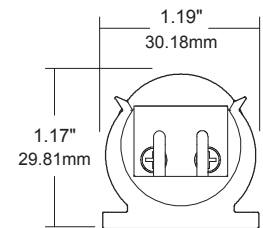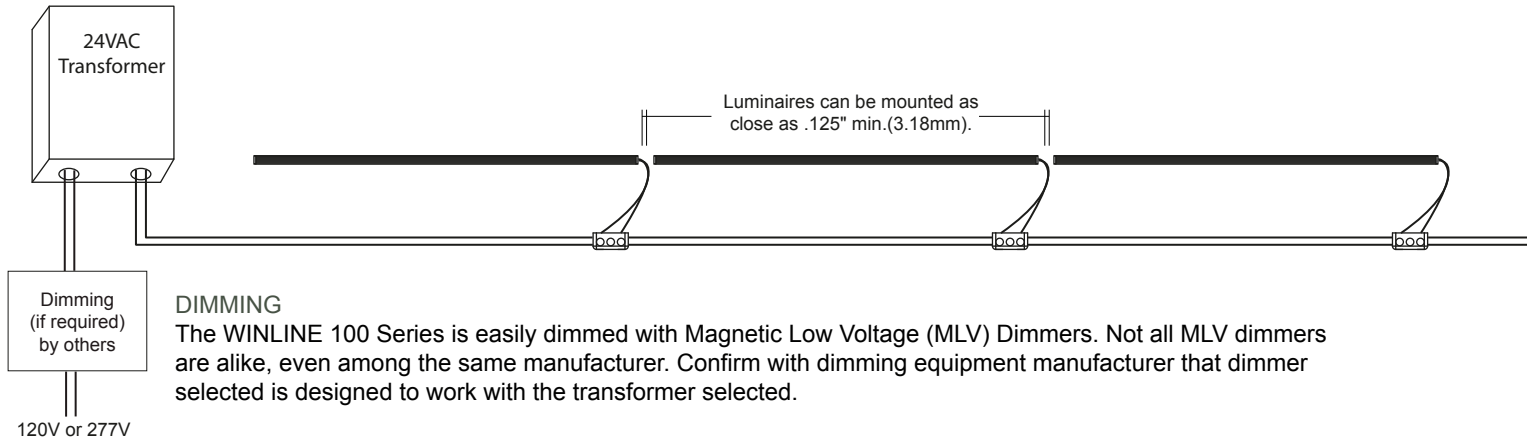
100° Adjustable Mount

1.19"
30.18mm

1.17"
29.81mm
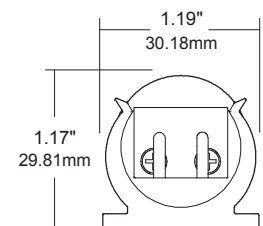
The 100 Series Adjustable Mount allows for 300 degree continuous rotation.

The WINLINE 100 Series is to be powered by 24VAC only. **Do not connect directly to line voltage under any circumstance.** Connection to line voltage will permanently damage internal components and void manufacturer's warranty.

POWER REQUIREMENTS

The WINLINE 100 series must be powered by a magnetic transformer. **Do not use electronic transformers.** Choose a transformer with adequate capacity. Total load should not exceed 80% of the rated output of the transformer at 24VAC.

Model	Power Consumption	Maximum Run Length
104	3.2 w/ft	54 ft
106	6.2 w/ft	38 ft

Luminaires can be mounted as close as .125" min.(3.18mm).

24VAC Transformer

Dimming (if required) by others

120V or 277V

DIMMING

The WINLINE 100 Series is easily dimmed with Magnetic Low Voltage (MLV) Dimmers. Not all MLV dimmers are alike, even among the same manufacturer. Confirm with dimming equipment manufacturer that dimmer selected is designed to work with the transformer selected.

Fixed Mount

See full installation instructions online
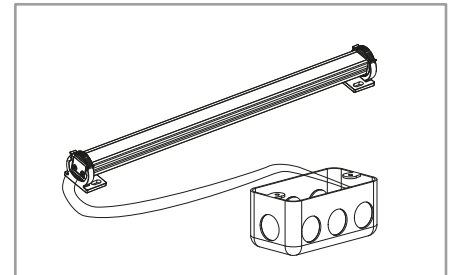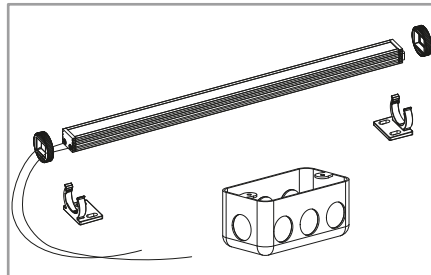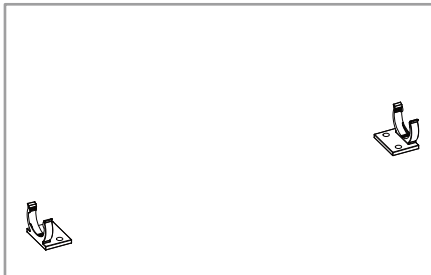
Step 1 Layout, mark, and attach mount clips.

Step 2 Lay in power feed wires and make electrical connections using supplied connectors.

Step 3 Snap into place and aim luminaire as required.
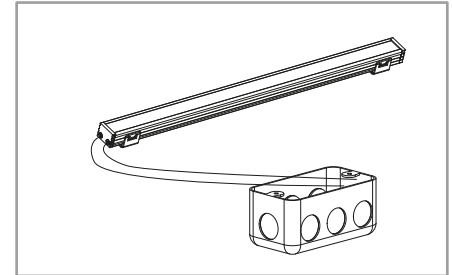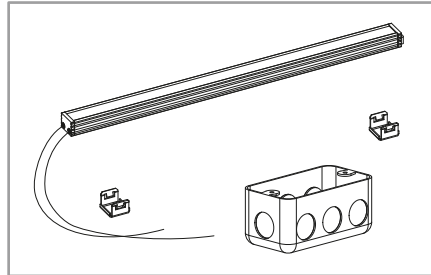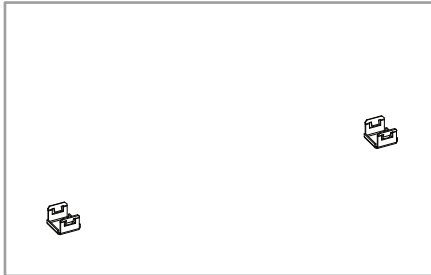
Adjustable Mount

See full installation instructions online

REMOTE MOUNTING CONSIDERATIONS

The WINLINE 100 Series is powered from remote-mounted transformers. The maximum remote distance of the transformer is dependent on many factors including total LED load, wire size, distance from the transformer to the first fixture in each run, and starting voltage at the transformer.
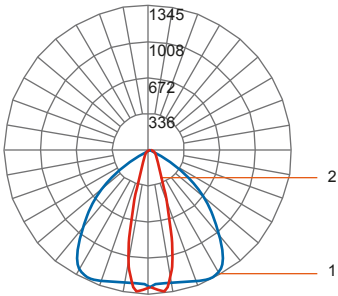
The installer is to ensure that 24VAC is present at the beginning of the run. By using a combination of large-gauge wire and adjusting the output voltage of the transformer, the installer can compensate for voltage drop over long remote distances. Use of #12 wire is recommended.

winline surface linear 104/106 dry — photometrics

30°

1345
1008
672
336

2
1

Maximum Candela = 1345 Located At Horizontal Angle = 0, Vertical Angle = 5
#1 - Vertical Plane Through Horizontal Angles (0-180) (Through Max. Cd.)
#2 - Vertical Plane Through Horizontal Angles (90-270)

Test Report: 22005 Catalog Number: WSL-106-48-30-30K
Description: 96 Nichia 757 3000K LEDs / 48" Winline 106 Dry Luminaire / Extruded Aluminum Housing / Acrylic Lens

LM79 Data - Based on WSL106/30°/30K Test Results

Color Temperature	Multiplier	Total Lumens	Lamp Watts	Lumens per Watt	CRI	Power Factor
ANSI-binned 2700K	0.85	1126	25	45.0	84.3	.77
ANSI-binned **3000K**	1.00	1324	25	52.9	82.9	.77
ANSI-binned 3500K	1.03	1376	25	55.0	83.0	.77
ANSI-binned 4000K	1.10	1469	25	58.7	87.0	.77

Zonal Lumen Summary 3000K

Zone	Lumens	%Fixture
0-30	671	50.7
0-40	880	66.5
0-60	1142	86.3
0-90	1287	97.2
Total Luminaire 0-180	1324	100.0

Candlepower Distribution   3000K

Angle	Horizontal Plane				
	0	22.5	45	67.5	90
0	1290	1290	1290	1290	1290
5	1258	1298	1331	1340	1340
10	1267	1325	1298	1195	1148
15	1289	1302	1057	831	738
20	1320	1154	686	403	337
25	1345	907	364	224	198
30	1317	610	226	154	139
35	1200	390	160	118	108
40	1019	273	120	95	91
45	818	202	94	79	77
50	604	152	73	65	64
55	408	114	58	54	54
60	260	84	46	47	49
65	159	61	38	46	52
70	93	44	34	54	57
75	51	32	38	51	52
80	25	24	38	50	54
85	8	21	33	46	48
90	1	17	28	39	38

100°

542
164
109
55

1
2

Maximum Candela = 542 Located At Horizontal Angle = 0, Vertical Angle = 5
#1 - Vertical Plane Through Horizontal Angles (0-180)
#2 - Vertical Plane Through Horizontal Angles (90-270)

Test Report: 22006 Catalog Number: WSL-106-48-100-30K
Description: 96 Nichia 757 3000K LEDs / 48" Winline 106 Dry Luminaire / Extruded Aluminum Housing / Acrylic Lens

LM79 Data - Based on WSL106/100°/30K Test Results

Color Temperature	Multiplier	Total Lumens	Lamp Watts	Lumens per Watt	CRI	Power Factor
ANSI-binned 2700K	0.85	1105	25	44.2	84.4	.77
ANSI-binned **3000K**	1.00	1300	25	52.0	83.0	.77
ANSI-binned 3500K	1.03	1352	25	54.0	83.1	.77
ANSI-binned 4000K	1.10	1444	25	57.7	87.1	.77

Zonal Lumen Summary 3000K

Zone	Lumens	%Fixture
0-30	423	32.5
0-40	693	53.3
0-60	1142	87.9
0-90	1299	99.9
Total Luminaire 0-180	1300	100.0

Candlepower Distribution   3000K

Angle	Horizontal Plane				
	0	22.5	45	67.5	90
0	538	538	538	538	538
5	527	534	540	541	538
10	521	529	535	536	534
15	511	520	526	526	524
20	497	506	510	510	508
25	477	486	490	490	490
30	453	463	465	468	466
35	423	433	436	436	434
40	388	398	399	390	381
45	350	358	353	324	310
50	306	314	292	245	220
55	259	264	220	156	130
60	212	207	147	93	86
65	163	146	82	66	64
70	111	92	51	47	48
75	62	48	32	32	34
80	26	22	17	19	20
85	6	7	8	10	10
90	0	1	1	0	0

TruLine 1.6, 24VDC Plaster-In LED system

Patent Pending

TL1.6-_-_-_-WH

Drywall

Drywall with Plaster & Paint

.25" (.64cm)   .5" (1.3cm)

1 to 40 feet

Power Feed Junction Box

Excess Soft Strip Junction Box

Vertical or Horizontal Installation

3.75" (9.5cm)

0.2"(0.5cm)

3" (7.9cm)

.625" (1.6cm)

2.56" (6.5cm)

2" (5cm)

1.6" (4cm)

LED Soft Strip

Lens

Plaster Here
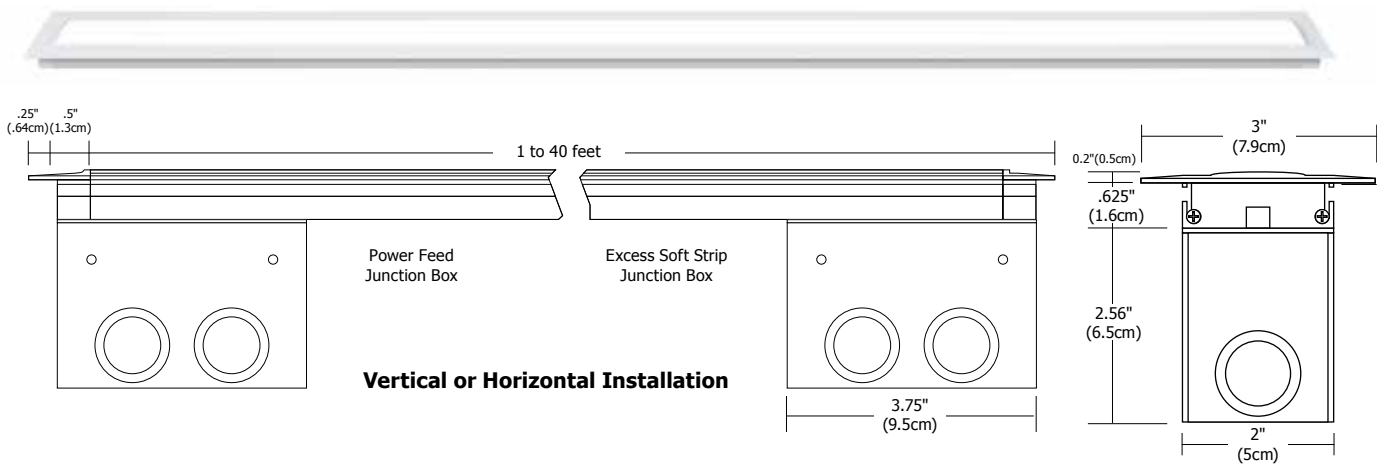
Description: TruLine 1.6 creates a clean line of glare-free general illumination within drywall. The 24VDC linear LED system features a shallow, 5/8" deep plaster-in aluminum extrusion no thicker than drywall that houses two rows of high CRI, commercial grade white LED Soft Strip. Its 1.6" wide diffuser lens projects a clean line of light without LED dots. System mounts to studs without joist modification. TruLine is sold in 1 foot increments up to 40 feet (5W) or 20ft (10W) and may be field-cut to any length. Coordinate installation with electrician and drywall contractors. Fixture includes a 5 year warranty. Patent pending.

Design Notes: TruLine runs in a straight line. The LED strip bends along the LED plane, allowing runs to continue from a wall onto a ceiling. Intersecting runs on the same wall require two separate TruLine systems.

Applications: Indoor Only—General illumination and architectural lighting for offices, hospitality, retail, residences, libraries, closets, hallways, bath/vanity.

Lamp: Two rows of white LEDs (2400K, 80+CRI; 2700K or 3000K, 85+CRI). LEDs consume 5 (2x2.5) or 10 watts per ft, delivering 40 lumens per system watt, 243 lumens per ft (5WDC) and 486 lumens per ft (10WDC)

Average Lamp Life: 50,000 hours

Power Supply: Class 2, 120-277VAC input.
PSB-96W-010-24VDC: 96W output; 5WDC Max of 20ft run(s), 10WDC Max of 10ft run(s)
PSB-2x96W-010-24VDC: 24VDC 2X96W output; 5WDC Max of 20ft run(s)/circuit, 10WDC Max of 10ft run(s)/circuit

Dimming: Lightolier: Sunrise, ZP600FAM120; Leviton: IP710-DL; Lutron: Radio Ra2 with Grafik Eye, RRD-10ND and GRX-TVI; Grafik Eye QS with Grafik Eye, QSGRJ-XP and GRX-TVI; Diva with Grafik Eye, DVTV and PP20; Nova T with Grafik Eye, NTFTV and PP20

Included Components: TruLine 1.6 channels, end caps, LED Soft Strip, TL 1.6 special Junction Boxes (quantity 2) and all mounting hardware. See page 2 of spec sheet for additional details.
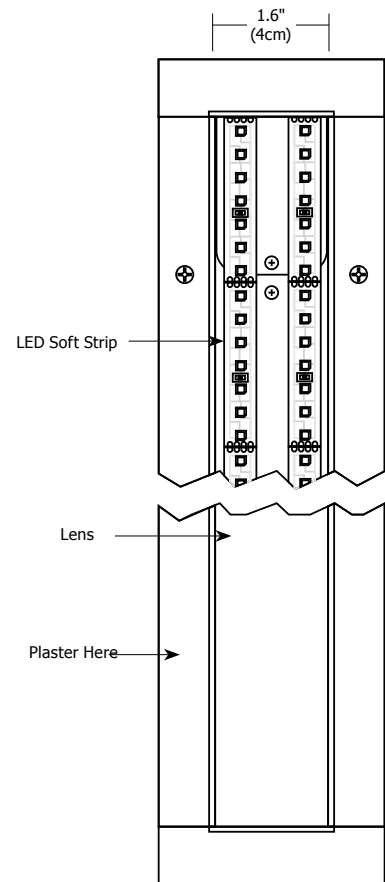
TRULINE 1.6, 24VDC ORDERING CODE

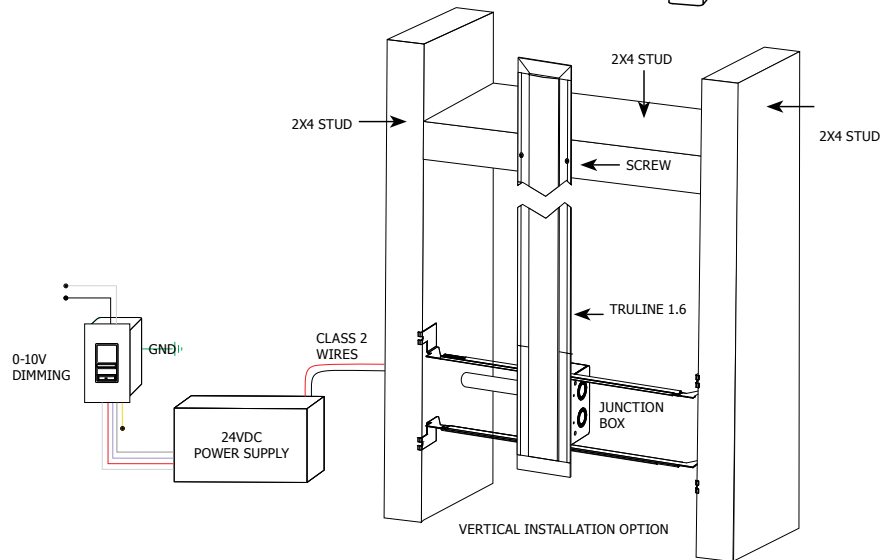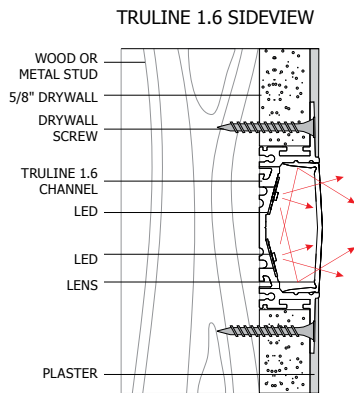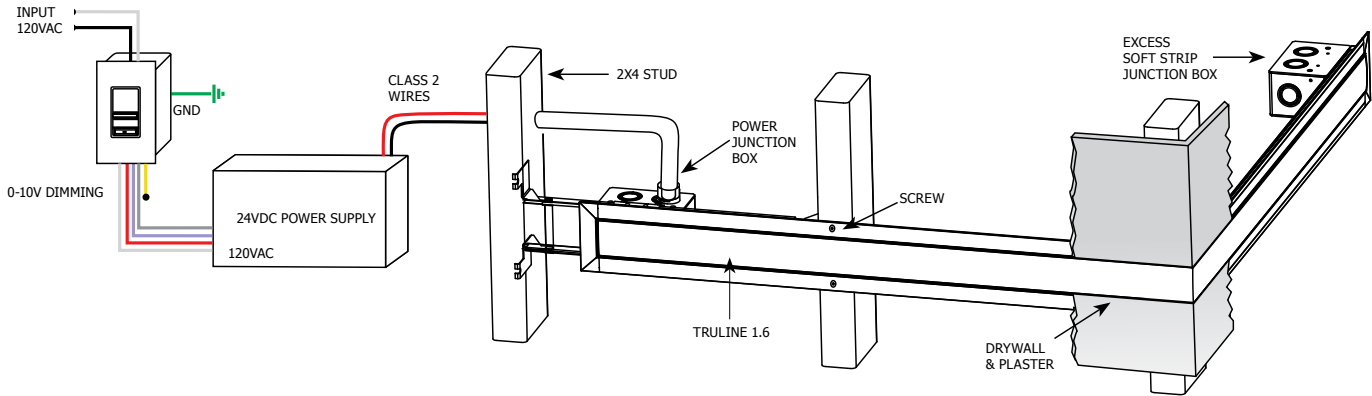| System	Wattage	Length in Feet	Color Temperature	Finish
TL1.6 -	**5WDC** -	**40FT** -	**27K** -	**WH**
TL1.6 TruLine 1.6" Wide	5WDC - 5 Watts/Foot 10WDC - 10 Watts/Foot	1-40 Feet* *10WDC Up to 20ft	24K 2,400K Amber White 27K - 2,700K Very Warm White 30K - 3,000K Warm White	WH - White

COMPANY		FIXTURE TYPE		DATE	
PROJECT		APPROVED BY			

Product specification subject to change without notification. REV. 02.13.14

Pure LIGHTING

TruLine 1.6, 24VDC Plaster-In LED system

Patent Pending

INPUT 120VAC

GND

0-10V DIMMING

24VDC POWER SUPPLY
120VAC

CLASS 2 WIRES

2X4 STUD

POWER JUNCTION BOX

SCREW

TRULINE 1.6

EXCESS SOFT STRIP JUNCTION BOX

DRYWALL & PLASTER

TRULINE 1.6 SIDEVIEW

WOOD OR METAL STUD
5/8" DRYWALL
DRYWALL SCREW
TRULINE 1.6 CHANNEL
LED
LED
LENS
PLASTER

0-10V DIMMING
GND

24VDC POWER SUPPLY

CLASS 2 WIRES

2X4 STUD
2X4 STUD
2X4 STUD
2X4 STUD
SCREW
TRULINE 1.6
JUNCTION BOX

VERTICAL INSTALLATION OPTION

INCLUDED COMPONENTS

TRULINE 1.6 JUNCTION BOX
Two TruLine 1.6 Junction Boxes included: One for use as a power feed junction box and the other for housing excess Soft Strip at the end of run.

Slim profile junction box mounts behind drywall. Low voltage DC wires from remote power supply connect to LED wires. Junction box opening covered by TruLine channel for a clean, safe connection.

For rough-in installation, junction boxes can be ordered in advance.
Ordering Code: TL1.6-JBOX

LED SOFT STRIP
Two rows of white LEDs (2400K, 80+CRI; 2700K or 3000K, 85+CRI). LEDs consume 5 (2x2.5) or 10 watts per ft, delivering 243 lumens per ft and 40 lumens per system watt.

END CAPS
For a finished look and to complete the installation, use end caps at the end of runs. End caps house the power cable from the LED Soft Strip.

Pure LIGHTING

COMPANY		FIXTURE TYPE		DATE	
PROJECT		APPROVED BY			

Product specification subject to change without notification. REV. 02.13.14

# TruLine 1.6, 24VDC Plaster-In LED system

Patent Pending

Application: 0-10V dimming for Truline 1.6

Power Supply: Class 2, 120-277VAC input. PSB-96W-010-24VDC: 24VDC 96W output
PSB-2x96W-010-24VDC: 24VDC 192W output

Dimming: Dimmable with 0-10V dimmer using power supply above. Lightolier: Sunrise, ZP600FAM120; Leviton: IP710-DL
Lutron: Radio Ra2 with Grafik Eye, RRD-10ND and GRX-TVI; Grafik Eye QS with Grafik Eye, QSGRJ-XP and GRX-TVI;
Diva with Grafik Eye, DVTV and PP20; Nova T with Grafik Eye, NTFTV and PP20

96W, 24VDC LOW VOLTAGE WIRE SIZE CHART: 3% VOLTAGE DROP

WIRE LENGTH (FT)	UP TO 33FT	34FT-52FT	53FT-86FT	87FT-130FT
WIRE SIZE	14 AWG	12 AWG	10 AWG	8 AWG
VOLTAGE AT END OF WIRE	23.28VDC	23.29VDC	23.28VDC	23.28VDC
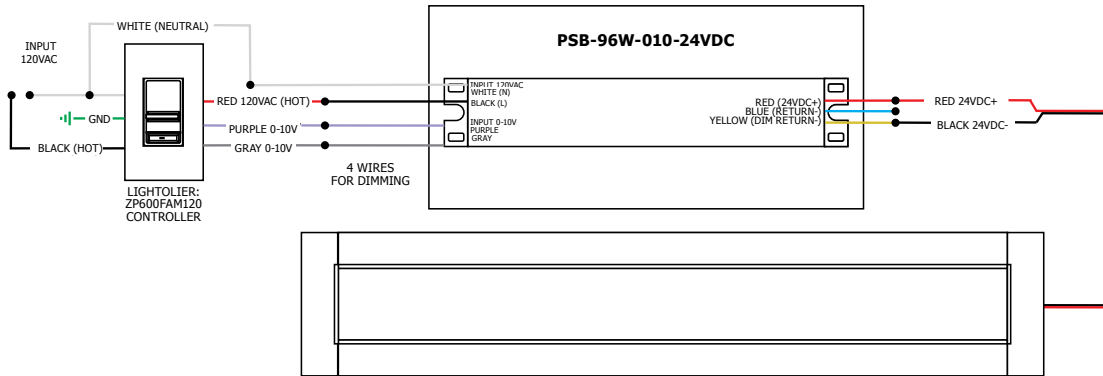
MOUNTING HARDWARE (INCLUDED)
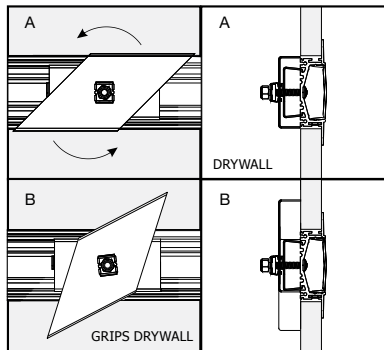
COMPANY		FIXTURE TYPE		DATE	
PROJECT		APPROVED BY			

Product specification subject to change without notification. REV. 02.13.14

TruLine 1.6, 24VDC   Plaster-In LED system   TL1.6-_ -_-_-WH

Patent Pending

ACTUAL WATTAGE PER FOOT - 5 WATTS

LENGTH IN FEET	TOTAL WATTAGE
1	5
2	10
3	16
4	20
5	26
6	30
7	34
8	40
9	44
10	48

LENGTH IN FEET	TOTAL WATTAGE
11	54
12	58
13	64
14	68
15	74
16	78
17	82
18	88
19	92
20	96

LENGTH IN FEET	TOTAL WATTAGE
21	2 x 51W
22	2 x 54W
23	2 x 56W
24	2 x 58W
25	2 x 61W
26	2 x 63W
27	2 x 66W
28	2 x 68W
29	2 x 70W
30	2 x 72W

LENGTH IN FEET	TOTAL WATTAGE
31	2 x 75W
32	2 x 78W
33	2 x 80W
34	2 x 82W
35	2 x 85W
36	2 x 87W
37	2 x 90W
38	2 x 92W
39	2 x 94W
40	2 x 96W

ACTUAL WATTAGE PER FOOT - 10 WATTS

LENGTH IN FEET	TOTAL WATTAGE
1	10
2	20
3	32
4	40
5	48
6	60
7	68
8	80
9	88
10	96

LENGTH IN FEET	TOTAL WATTAGE
11	2 x 54
12	2 x 58
13	2 x 64
14	2 x 68
15	2 x 72
16	2 x 78
17	2 x 82
18	2 x 88
19	2 x 92
20	2 x 96

Pure LIGHTING

COMPANY		FIXTURE TYPE		DATE	
PROJECT		APPROVED BY			

Project:

DLED-5400 Square Series Specification Sheet

LED 50,000 Hour Dimmable Light Channel with Angled LED Light Source - 50 Lumens per Foot - 2.5 Watts per Foot - CRI 70

Date:

Type:

Cat. No. DLED-5400 - _____ - _____ - _____ - _____ - _____ - _____ - _____

Fixture Description: A continuous LED dimmable light strip mounted inside a square clear or frosted acrylic channel (maximum 12 foot run per feed) that offers a warm, soft, even glow at a huge savings over incandescent, halogen, or fluorescent. Runs cooler than incandescent or halogen, and contains no harmful gasses. 50,000 hour lamp life saves on maintenance and re-lamping costs.

Construction: 20 LED diodes per foot wired into rigid LED channel with jumper wire and feed wire pre-wired and attached. For lengths over 69", two strips are connected by a 1" flex wire joiner to create a single length of up to 138" max.

Electrical: 24 Volt AC. 2.5 Watts per foot. 50 lumens per foot. Dimmable.

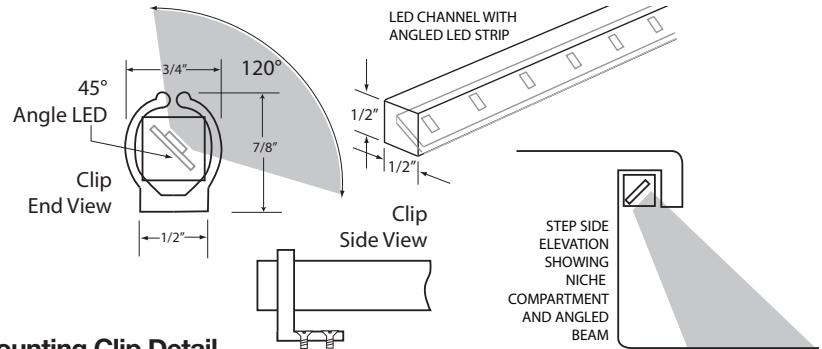**Mounting:** Mounts into coves or other surfaces with clips and/or double stick tape.

Applications:
• Coves • Light Pockets • Accent Lighting
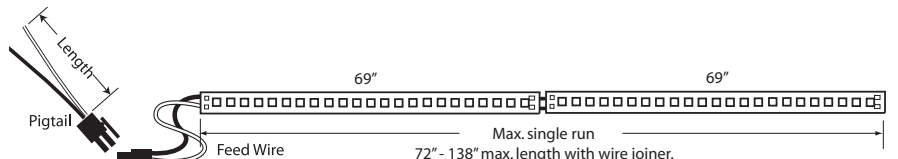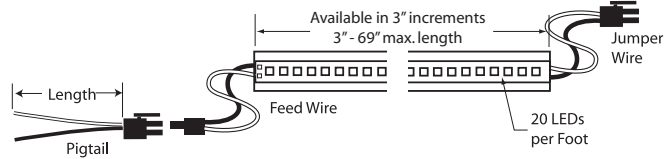• Cabinet Lighting • Undercabinet Lighting
• Reveal Molding

Note: Actual length of tube is 1/2" longer than specified length. Ex: DLED-5300-46 is actually 46-1/2" long.

IMPORTANT: LED strips are to be fed from UL Listed Class II magnetic transformers.

NOTE: Dimmers used must be approved for magnetic loads and use direct current or voltage regulation, such as Lutron Diva Series. Dimmers that use phase forward dimming technology must have a neutral. Check with factory for compatibility.

LED CHANNEL WITH ANGLED LED STRIP

45° Angle LED — 3/4" — 120° — 1/2" — 7/8" — 1/2"

Clip End View — Clip Side View

Mounting Clip Detail

STEP SIDE ELEVATION SHOWING NICHE COMPARTMENT AND ANGLED BEAM

Available in 3" increments
3" - 69" max. length

Jumper Wire

Length — Feed Wire — 20 LEDs per Foot

Pigtail

Length — Pigtail — Feed Wire

69" — 69"

Max. single run
72" - 138" max. length with wire joiner.
2 separate lengths joined with 1" flex wire for LED Strips from 72" - 138".

NOTE: Connectors are not to be used in damp and wet location. Use appropriate wire nut connectors. All dimensions are plus 1-1/4" length.

Linear LED J-Box

DL-CFB-5000 Conduit Feed Box

Conduit / Flex — 1-3/8" — DLED-5000 — 2 - 3/4" K.O.'s — 1-1/2" — 4-1/4"

Voltage:	**24 Volts AC**
Watts:	**2.5 Watts per foot**
Beam Spread:	**120°**
Max. Run:	**12 feet**
Max. Single Length:	**69"**
Mounting:	**Clips**

Secondary Wire Specification

Max. Load: 50 Watts
Max. Distance: 50 Feet
16 AWG 2/C Type CM-CL2
ETL-CM CL3
Standard copper conductor
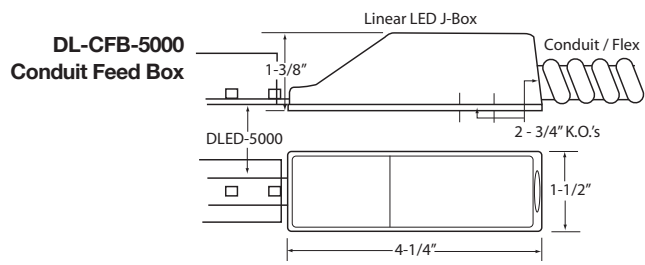
Model No.	Acrylic Tube with LED Strip Length (+1/2")	Acrylic Material	Wire Format	Feed Wire Length	Jumper Wire Length	Pigtail Length**	Color Temp.
DLED-5400	3", 6", 9", 12", 15", 18", 21", 24", 27", 30", 33", 36", 39", 42", 45", 48", 51", 54", 57", 60", 63", 66", 69" **See NOTE for LED Lengths Over 69"** 72", 75", 78", 81", 84", 87", 90", 93", 96", 99", 102", 105", 108", 111", 117", 120", 123", 126", 129", 132", 135", 138"	**CL** Clear **FR** Frosted	**EW** End Wire (Std.) **SW** Side Wire (Custom)	1.5", 3", 6", 12", 18", 30", Custom	None* (0), 1.5", 3", 6", 12", 18", 30", Custom	0" 3", 12", 36", Custom	2700K 3000K 6500K

NOTE: All LED lengths 72" - 138" are made up of 2 separate units joined together by a 1" flex wire.
DIMENSION ALLOWANCE: ALL DIMENSIONS LISTED ARE PLUS 1/2". TUBE IS 1/2" LONGER THAN SPECIFIED LED LENGTH.
FOR CURVILINEAR APPLICATIONS - SPECIFY .75" JUMPER WIRE LENGTH
*NOTE: You can specify "0" for no jumper wire on the end.
** NOTE: 1 pigtail per run (specify 3", 12", 36", or Custom).

Acrylic Tube with LED Length*	Clear Tube	Side Wire	Feed Wire Length	Jumper Wire Length	Pigtail Length	Color Temp.

Ordering Example: DLED-5400 - 45" - CL - SW- F6" - J3" - P3" - 2700

dreamscape
L I G H T I N G   M f g . ,   I N C .

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Phone: 323-933-5760 • FAX: 323-933-3607
info@dreamscapelighting.com • www.dreamscapelighting.com
Specifications subject to change without notice

INTERTEK — ETL LISTED — C   US

022012_DLED5400

COOPER LIGHTING - METALUX®

energy solutions

DESCRIPTION

SNLED Lensed is a narrow LED lensed striplight series. This high quality luminaire is dedicated to the latest solid state lighting and electronic driver technology for optimal performance and energy efficiency. This Lensed product is available with three different lens types.

The small size of the SNLED makes it an ideal choice for size restricted architectural applications. The SNLED Series can be the illumination solution in commercial, industrial, retail and residential applications. Fixtures can be used in storage/utility areas, coves, display cases, shops, task and general area lighting.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction
Channel is die formed cold rolled steel with numerous KOs for ease of installation. Groove for Tong Hanger. End plate quickly converts to snap-in channel connector for continuous row alignment. Channel/wireway cover secured with sheet metal screws.

Controls
Equipped standard with a 0-10V continuous dimming driver that works with any standard 0-10V control/dimmer. Dimming range is 10% to 100%; varies by control device. Combine with energy-saving products like occupancy sensors, day lighting controls, and lighting relay panels from Cooper Controls (www.coopercontrol.com) to maximize energy savings.

Electrical
Long-Life LED system coupled with electronic (120-277V) driver to deliver optimal lighting performance. LED's available in 3500k, 4000k, or 5000k with a CRI ≥ 85. Other color temperatures are available. Projected life is 72,000 hours at 70% lumen output. This driver is 0-10V dimming standard.

Finish
Multistage iron phosphate pretreatment ensures maximum bonding and rust inhibitor. High reflective paint after fabrication, baked white enamel finish is standard.

Channel/Wireway Cover
Die formed heavy gauge steel. Tight fit for ease of maintenance.

Shielding
Offers three different lensed optical distributions.

Installation
Fixture may be surface, pendant, or stem mounted. See accessories below in ordering information.

Compliance
Components are CSA recognized. Indoor luminaires are CSA listed for 35°C ambient environments, RoHS compliant, and comply with IESNA LM-79. LEDs comply with LM-80 standards. DesignLights™ Consortium Qualified (both lumen versions). Refer to www.designlights.org Qualified Products under Family Models for details.
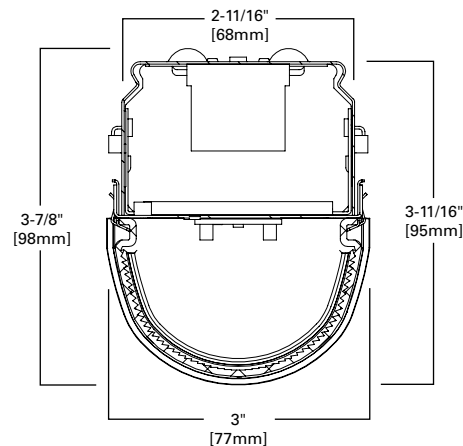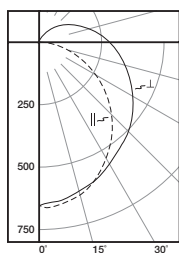
Warranty
Five-year warranty.

SNLED LENSED
LED

Lensed LED Striplight

powered by
fifthlight
technology

2-11/16"
[68mm]

3-7/8"
[98mm]

3-11/16"
[95mm]

3"
[77mm]

LINEAR DISCONNECT
Safe and convenient means of disconnecting power

Cooper Lighting
by EATON

ISO SYSTEMS CERTIFIED

ADF121822
2014-03-17 15:00:15

PHOTOMETRICS

SNLED-LD1-52-LW-UNV-L835-CD1-U
Electronic Driver
3500K LEDs

Spacing criterion:
(II) 1.2 x mounting height, (⊥) 1.3 x mounting height

Test Report: P32263-R2

Candlepower

Angle	Along ∥	45°	Across ⊥
0	1199	1199	1199
5	1200	1190	1190
10	1190	1179	1181
15	1159	1152	1162
20	1115	1119	1133
25	1052	1072	1101
30	990	1029	1067
35	915	978	1031
40	832	922	996
45	743	866	958
50	654	805	911
55	559	743	867
60	471	684	818
65	375	625	765
70	284	565	716
75	198	508	663
80	120	454	611
85	57	402	562
90	10	355	514

Coefficients of Utilization

Effective floor cavity reflectance 20%

rc	80%				70%				50%			30%			10%			0%
rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	115	115	115	115	110	110	110	110	102	102	102	94	94	94	87	87	87	83
1	102	96	91	86	97	92	87	83	84	81	77	78	75	72	71	69	67	63
2	92	82	74	68	87	79	72	65	72	66	61	66	62	57	61	57	54	50
3	83	71	62	55	79	68	60	53	63	56	50	58	52	47	53	48	44	41
4	75	63	53	46	72	60	51	45	55	48	42	51	45	40	47	42	38	35
5	69	56	46	39	66	53	45	38	49	42	36	46	39	34	42	37	32	30
6	64	50	40	34	61	48	39	33	44	37	31	41	35	30	38	32	28	26
7	59	45	36	29	56	43	35	29	40	33	27	37	31	26	35	29	25	22
8	55	41	32	26	52	39	31	26	37	29	24	34	28	23	32	26	22	20
9	51	37	29	23	49	36	28	23	34	27	22	31	25	21	29	24	20	18
10	48	34	26	21	46	33	26	21	31	24	20	29	23	19	27	22	18	16

Zonal Lumen Summary

Zone	Lumens	%Fixture
0-30	939	17.9
0-40	1551	29.6
0-60	2869	54.7
0-90	4362	83.2
0-180	5245	100.0
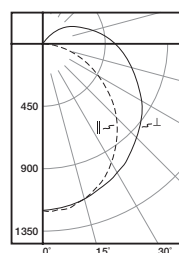
SNLED-LD1-28-LW-UNV-L840-CD1-U
Electronic Driver
4000K LEDs

Spacing criterion:
(II) 1.2 x mounting height, (⊥) 1.3 x mounting height

Test Report: P23279-R2

Candlepower

Angle	Along ∥	45°	Across ⊥
0	654	654	654
5	661	652	646
10	651	641	635
15	633	626	622
20	609	605	605
25	578	579	586
30	541	551	567
35	500	522	547
40	455	491	527
45	408	459	505
50	358	426	483
55	308	393	460
60	257	361	435
65	206	330	410
70	156	299	384
75	108	269	357
80	65	241	330
85	30	214	303
90	1	188	276

Coefficients of Utilization

Effective floor cavity reflectance 20%

rc	80%				70%				50%			30%			10%			0%
rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	115	115	115	115	110	110	110	110	102	102	102	94	94	94	86	86	86	83
1	102	96	90	86	97	92	87	83	84	80	77	77	74	71	71	69	66	63
2	92	82	74	68	87	79	71	65	72	66	61	66	61	57	61	57	54	50
3	83	71	62	55	79	68	60	53	63	56	50	58	52	47	53	48	44	41
4	75	63	53	46	72	60	51	45	55	48	42	51	45	40	47	42	37	35
5	69	56	46	39	66	53	45	38	49	42	36	45	39	34	42	37	32	30
6	64	50	40	34	61	48	39	33	44	37	31	41	35	30	38	32	28	26
7	59	45	36	30	56	43	35	29	40	33	27	37	31	26	35	29	25	22
8	55	41	32	26	52	39	31	26	37	30	24	34	28	23	32	26	22	20
9	51	37	29	23	49	36	28	23	34	27	22	31	25	21	29	24	20	18
10	48	34	26	21	46	33	26	21	31	24	20	29	23	19	27	22	18	16

Zonal Lumen Summary

Zone	Lumens	%Fixture
0-30	505	18.0
0-40	831	29.6
0-60	1530	54.5
0-90	2326	82.8
0-180	2326	100.0

MOUNTING DATA

2'

Ceiling Stand-off Embossments
Hole for Toggle
3" [77mm]
14" [355mm]
2-1/2" [64mm]
24" [609mm]
∅K.O (2) 7/8" [22mm]

4'

Ceiling Stand-off Embossments
Hole for Toggle
∅K.O (3) 7/8" [22mm]
3" [77mm]
2-1/2" [64mm]
38" [965mm]
48" [1219mm]

8'

Ceiling Stand-off Embossments
2-1/2" [64mm]
3" [77mm]
26-3/4" [680mm]
5" [127mm]
Hole for Toggle
∅K.O (2) 7/8" [22mm]
96" [2437mm]
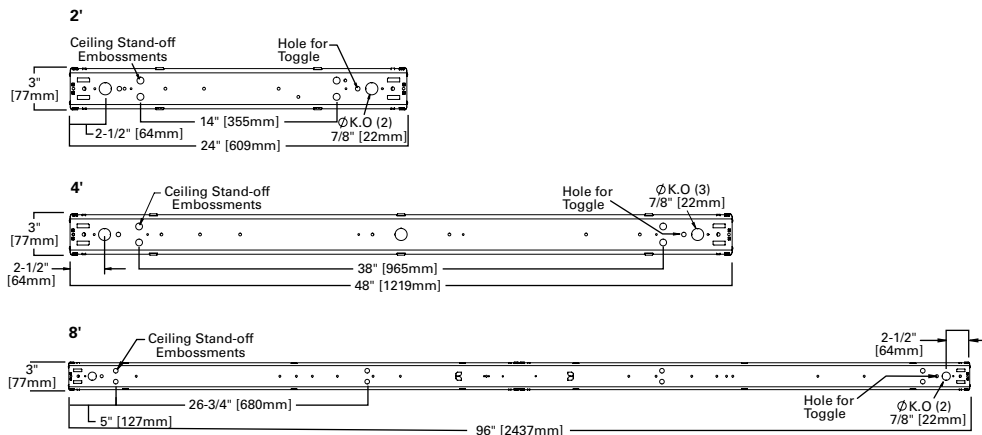
WATTAGE

Product Type	Product Configurations	Length	Lumen Package	Wattage	LPW
Lensed - Clear	2SNLED-LD1-23-LC-UNV-L8XX-CD1-U	2 ft.	2300	23.11	100
Lensed - Clear	SNLED-LD1-31-LC-UNV-L8XX-CD1-U	4 ft.	3100	28.32	109.5
Lensed - Clear	SNLED-LD1-49-LC-UNV-L8XX-CD1-U	4 ft.	4900	49.6	98.8
Lensed - Clear	SNLED-LD1-58-LC-UNV-L8XX-CD1-U	4 ft.	5800	53.15	109
Lensed - Clear	8TSNLED-LD1-67-LC-UNV-L8XX-CD1-U	8 ft.	6700	64.49	106
Lensed - Clear	8TSNLED-LD1-94-LC-UNV-L8XX-CD2-U	8 ft.	9400	96.45	97
Lensed - Clear	8TSNLED-LD1-115-LC-UNV-L8XX-CD2-U	8 ft.	11500	107.84	106.7
Lensed - Narrow	2SNLED-LD1-23-LN-UNV-L8XX-CD1-U	2 ft.	2300	23.06	100
Lensed - Narrow	SNLED-LD1-30-LN-UNV-L8XX-CD1-U	4 ft.	3000	28.32	106
Lensed - Narrow	SNLED-LD1-48-LN-UNV-L8XX-CD1-U	4 ft.	4800	49.6	97
Lensed - Narrow	SNLED-LD1-57-LN-UNV-L8XX-CD1-U	4 ft.	5700	53.15	107
Lensed - Narrow	8TSNLED-LD1-64-LN-UNV-L8XX-CD1-U	8 ft.	6400	64.49	99
Lensed - Narrow	8TSNLED-LD1-90-LN-UNV-L8XX-CD2-U	8 ft.	9000	96.45	93
Lensed - Narrow	8TSNLED-LD1-109-LN-UNV-L8XX-CD2-U	8 ft.	10900	107.84	101
Lensed - Wide	2SNLED-LD1-21-LW-UNV-L8XX-CD1-U	2 ft.	2100	23.04	91
Lensed - Wide	SNLED-LD1-28-LW-UNV-L8XX-CD1-U	4 ft.	2800	28.31	99
Lensed - Wide	SNLED-LD1-44-LW-UNV-L8XX-CD1-U	4 ft.	4400	49.78	88.4
Lensed - Wide	SNLED-LD1-52-LW-UNV-L8XX-CD1-U	4 ft.	5200	53.13	98
Lensed - Wide	8TSNLED-LD1-60-LW-UNV-L8XX-CD1-U	8 ft.	6000	64.49	93
Lensed - Wide	8TSNLED-LD1-85-LW-UNV-L8XX-CD2-U	8 ft.	8500	96.45	88
Lensed - Wide	8TSNLED-LD1-99-LW-UNV-L8XX-CD2-U	8 ft.	9900	107.84	92

ORDERING INFORMATION

SAMPLE NUMBER: SNLED-LD1-47-LN-UNV-L840-CD1-U

2=2' Length
[Blank]=4' Length
8T=8' Length

Series
SNLED=Commercial LED Striplight

Lamp Type
LD1=LED 1.0

LED Lumens Output[2]

Lensed - Clear	Lensed - Narrow	Lensed - Wide
23=2300[1]	**23**=2300[1]	**21**=2100[1]
31=3100	**30**=3000	**28**=2800
49=4900	**48**=4800	**44**=4400
58=5800	**57**=5700	**52**=5200
67=6700	**64**=6400	**60**=6000
94=9400[3]	**90**=9000[3]	**85**=8500[3]
115=11500[3]	**109**=10900[3]	**99**=9900[3]

NOTES: [1] 2 ft. only. [2] Nominal lumen values. [3] Two driver required. [4] 4 ft. and 8 ft. only. [5] Dimmable. [6] For a complete listing of Fifth Light Technology products and other solutions from Cooper Controls, visit www.coopercontrol.com. [7] EL options are integral. [8] Must specify voltage (120V or 277V) when selecting EL option. [9] For delivered lumens, take lumens per watt of desired fixture and multiply by 10 watts (100 lp/W x 10 = 1000 lumens delivered).

Specifications & dimensions subject to change without notice. Consult your Cooper Lighting Representative for availability and ordering information.
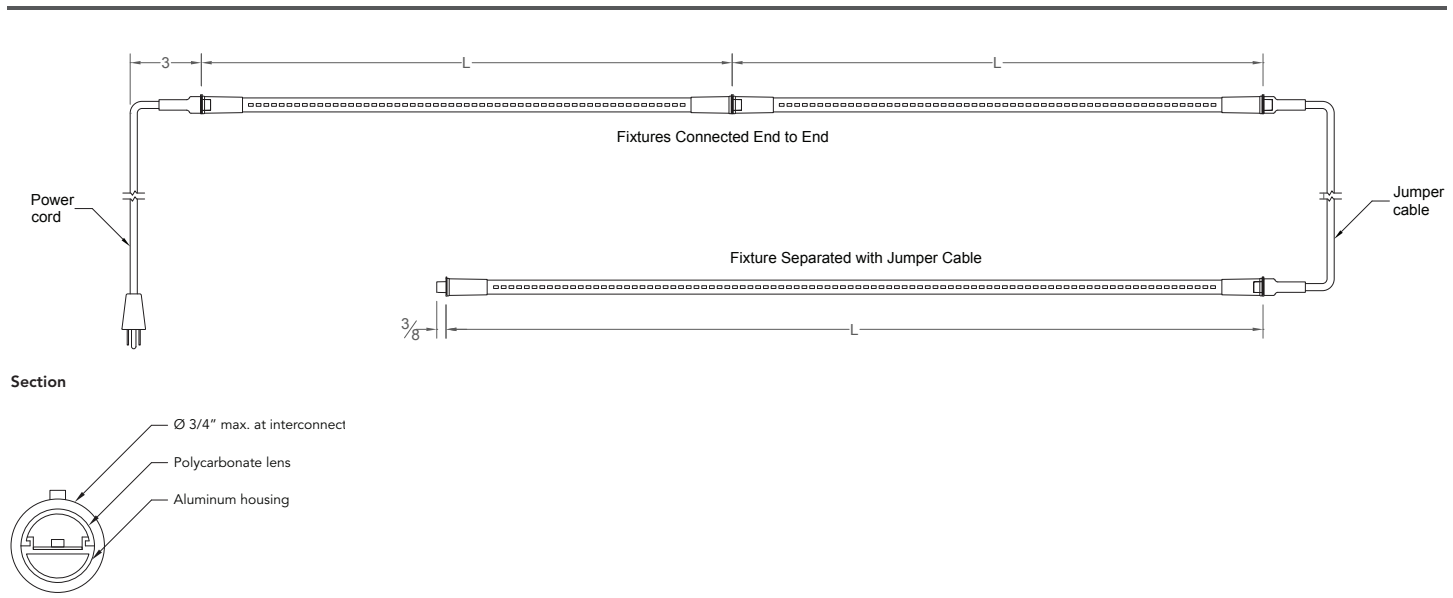
Voltage
UNV=Universal Voltage 120-277
347=347V [4]
480=480V [4]

Optic
LC=Lensed Clear
LN=Lensed Narrow
LW=Lensed Wide

Options
Emergency
EL=Emergency Installed, 700 Lumens [7], [8]
EL14=Emergency Installed, 1400 Lumens [7], [8]
EL10W=Emergency Installed, 10 Watts [9]
Wiring
PI/CPI=Plug-in Option
Motion Sensors
LB-ERMS360=360° Low Bay Motion Sensor - End of Row
LB-MRMS360=360° Low Bay Motion Sensor - Middle of Row
HB-ERMS360=360° High Bay Motion Sensor - End of Row [5]
HB-MRMS360=360° High Bay Motion Sensor - Middle of Row [5]
CCT
L835=3500K
L840=4000K
L850=5000K

Driver Type
CD=0-10V Dimming Driver
SD=Step-dim (Bi Level)
5LTD=Fifth Light (DALI) Driver [6]

Number of Drivers
1=1 Driver
2=2 Drivers

Packaging
U=Unit Pack

ACCESSORIES
(Order Separately)
AYC-Chain/Set=36" Chain Hanger (Use 1 set per fixture)
SCF=Fixed Stem Set (Specify Length)
SCS=Swivel Stem Set (Specify Length)
SCA=Adjustable 48" Stem Set
EYE CHAIN SET/3FT=Eye Bolt Chain (Use 1 set per fixture)
WG/SNF-2FT=2' Wire Guard
WG/SNF-4FT=4' Wire Guard
A1B/Spacer-U=Spacer 1-1/2" to 2-1/2" from ceiling (Use 2 per fixture)
TOGGLE=Single Toggle No. 2 (Specify Length)
Y-TOGGLE=Y Toggle No. 2 (Specify Length)

SHIPPING DATA

Length.	Wt.
2 ft.	4.3 lbs.
4 ft.	8.2 lbs.
8 ft.	15.1 lbs.

ECO5-JP

Dedicated LED fixture with inline driver and interconnects for continuous runs

LED

Patent Pending

- Fixture constructed of an extruded aluminum housing/heat sink, polycarbonate lens and PVC 7 Amp male and female interconnects
- Lens available clear of frosted
- Fixture's inline 20 mA driver powered directly with 120V through an accessory grounded cord and plug (ordered separately).
- Fixtures can join directly end to end for continuous runs or be separated with accessory jumper cables in lengths ranging from 6" to 36" (ordered separately)
- Mounting accomplished with accessory spring clips (ordered separately), which enables 360° aiming
- Efficacy is 43 lm-52 lm for 1' length and 80 lm-98 lm for 2'-5' lengths, dependent on color temperature and lens option (consult photometric reports for detailed information)
- Available in 2700K, 3000K, 3500K, 4000K and 5000K, all with a ±50K and typical 82 - 85 CRI
- LED beam angle is 120°
- Fixture operating temperature is 50°C @ 25°C ambient
- Lamp life rated at 50,000 hours
- Limited three year warranty
- IBEW manufactured and labeled
- Made in the U.S.A.

Specification order example: ECO5-JP + 2 + 27 + C (mounting clips, power cord, and jumper cables - ordered separately)

NOMINAL FIXTURE LENGTH ("L" see below)	COLOR TEMPERATURE (±50K)	LENS TYPE

ECO5-JP + _____ + _____ + _____

1: 3.1W - 13-1/4"	27: 2700K - 82 CRI	C: clear
2: 3.2W - 22-3/8"	30: 3000K - 84 CRI	F: frosted
3: 5.6W - 34-1/8"	35: 3500K - 85 CRI	
4: 7.3W - 46-1/8"	40: 4000K - 85 CRI	
5: 9.3W - 57-1/2"	50: 5000K - 85 CRI	

Fixtures Connected End to End

Power cord

Jumper cable

Fixture Separated with Jumper Cable

Section

- Ø 3/4" max. at interconnect
- Polycarbonate lens
- Aluminum housing

type:

MOUNTING CLIPS |

Note: Two clips required for all lengths

EDT5-CLIP   Spring steel mounting clip with mounting hole

Fastener by others — Mounting surface

$3\frac{1}{32}$"   360° aiming

$\frac{3}{4}$"

EDT5-MAGCLIP   Spring steel mounting clip with magnetic base

Magnetic surface

$1\frac{5}{32}$"   360° aiming   Magnetic base

$\frac{3}{4}$"
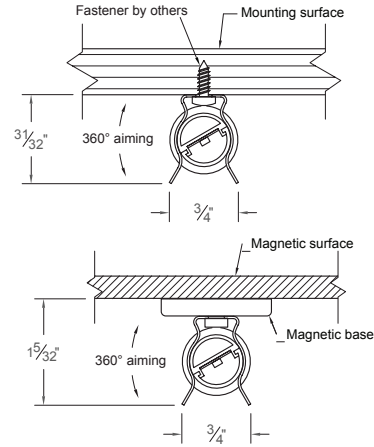
JUMPER CABLES | 18-3 SJT, white jacket

Note: Jumper cables required when ECO5-JP fixtures are not directly connected end to end

JP-06   6" male to female jumper cable
JP-12   12" male to female jumper cable
JP-24   24" male to female jumper cable
JP-36   36" male to female jumper cable

6", 12", 24" or 36"
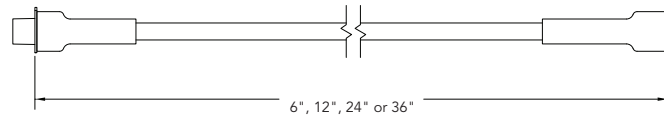
POWER CORD | 18-3 SJT, white jacket

Note: One power cord required for each ECO5-JP fixture run

PCW6-P   6' male to grounded plug
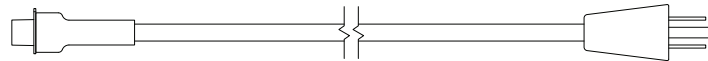
PHOTOMETRY |
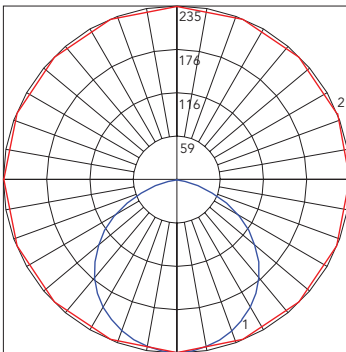
ECO5-JP-4-35-C   Maximum Candela = 234.98   Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180), (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

(235, 176, 116, 59)
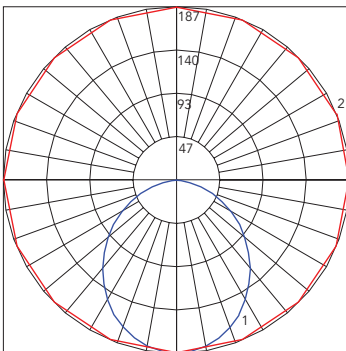
ECO5-JP-4-35-F   Maximum Candela = 186.68 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180), (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

(187, 140, 93, 47)

CYLINDRO II DECO LED WITH OPAL ACRYLIC DIFFUSER

CYLINDRO II · DECO

TYPE:

PROJECT:

ORDER NUMBER:

Model#	Finish	LEDs	Voltage	Option
6703–3 ft.	**S**– Silver	**R**ed	**1**–120V	**C2RD**
6704–4 ft.	**W**–White	**B**lue	**2**–277V	**BDIM-RGB**
6705–5 ft.	**K**– Black	**WW**–Warm White		**BDMXMOD**
		CW–Cool White		**BDIM-W**
		SQ–RGB sequencer		

Example:

6705	S	WW	1	BDIM-W

Traxon Light Drive* (enter quantity)

BTRAXW (white)   **BTRAXB** (black)

CANOPY

- Mounts to all standard JBoxes
- Specify **C2RD** for remote driver compartment in accessible ceiling or through access panel.

  NOTE: Aircraft cable suspension not recommended for outdoor use, where fixture will be exposed to water, or subject to wind oscillation. Avoid use near HVAC vents and in environments with corrosive chemical vapors, such as swimming pools.

CONSTRUCTION

- Extruded aluminum outer housing with white frosted acrylic diffuser. 6' adjustable power cord and AC cables with push button grippers supplied standard. (Specify **XP** for additional length.)

LED DRIVER

- Driver constant voltage, 100W/24V universal
- Electronic drivers, DMX and dimmer interface housed in canopy or remote gear box (**C2RD**), for easy access.
- Color sequencer standard, with potenciometer speed control; or may be ordered with dimmers or DMX interface. (See second page for details.)

LEDs

- Flexible 5050 24V, universal voltage LED tape light. (The most popular commercial LED light source and, therefore, easily replaced.)
- cUL listed for dry locations.

6 5/8
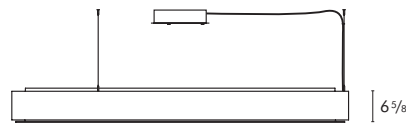
Model	Length	White Watts	Red/Blue Watts	SQ Watts
6703	3 ft.	36	18	36
6704	4 ft.	54	27	54
6705	5 ft.	72	36	72

Specify LED color:

WW–Warm White (2900 –3500° K)
CW–Cool White (4700 –5500° K)
SQ–RGB sequencer
Red
Blue

DIMENSIONS

Model	ID	OD
6703	34.875"	40.625"
6704	46.9"	52.625"
6705	58.9"	64.625"

6705.CW

CP DISTRIBUTION

Vertical plane thru Horiz. 0 – 180° ——
Horiz. cone thru Vert. angle 85° - - - - -
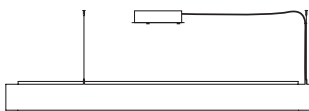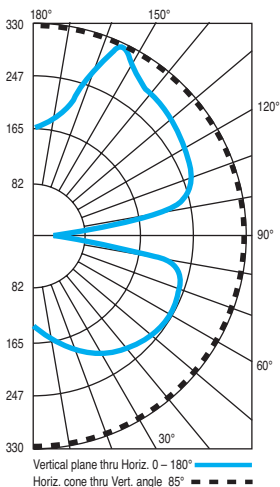
COEFFICIENTS

% CEILING 80	(20% FLOOR)	
% WALL 70	50	30
0	106	106	106
1	94	89	84
2	84	75	68
3	76	65	56
4	69	56	47
5	63	50	40
6	57	44	35
7	53	39	31
8	49	35	27
9	45	32	24
10	42	29	22

NOTES

6705.CW
60W LED strip, cool white
Total lumens: 2,700

Delray's *Deco* fixtures are cost-effective color and white LED luminaires, available in a variety of classic shapes and geometric configurations. *Deco* fixtures feature flexible 5050 24V, universal voltage LED tape light; the most popular type of commercial LED light source available and, therefore, easily obtained and replaced.

Deco standard LED color options include red and blue, as well as RGB sequencing, which is available with either DMX 512 interface, or 3-dimmer control (2.5 watts per foot). A DMX wall box control is standard.

Deco's white LEDs provide a CCT range decorative glow, and are available in two color temperatures: **WW**–Warm White (2900 – 3500º K) and **CW**–Cool White (4700 – 5500º K).

The white tape LEDs consume 4.4 watts and output 270 lumens per foot.

Delray will match white LEDs in up to six fixtures. (For projects requiring additional matched white fixtures, please see *Lux* series.)

Deco fixtures deliver subtle decorative effects with Delray's lowest lumens, wattage, and cost.

cUL listed for dry locations only.

RGB INTERFACE CONTROL OPTIONS

RGB SEQUENCER OPTIONS
• Osram part no. OTRGBSEQUENCER, supplied.

BDIM-RGB
• Osram part no. OTRGBDIM, supplied.
• Dimming control interface for RGB LED that synchronizes the color in multiple fixtures.
• Colors are mixed manually by adjusting three 0-10V wall dimmers, or three 100K Ohm potentiometres. 0-10V converter is required for DMX control. Additional 18/4 control cable, from fixture to canopy, is supplied. Controls by others.

BDMXMOD
• Osram part no. OTDMXRGB supplied.
• DMX control interface for RGB LED.
• Provides DMX control with protocols that meet USITT DMX-512A or DMX512 (DIN 56930-2). No converter is required. DMX controls by others.
• A second 3-conductor control cable to fixture canopy is supplied.

BDIM-White
• For white LEDs only.
• Osram part no. OT96W/24V UNV 0-10V supplied.
• Use with 0–10V, purple/gray wire analog dimmers.

TRAXON LIGHT-DRIVE RGB (order separately)

BTRAXW–white controller
BTRAXB–black controller (shown)
• Stand-alone, wall-mounted (12V power supply included) DMX controller for RGB LED that provides direct access to fixtures in two lighting zones.
• Tune color and brightness with the Light-Drive wheel.
• Two sequence modes enable continuous replay of all saved color settings, as well as a preset color-phase function, which can be adjusted in replay speed.
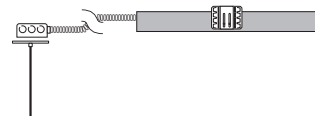
• Fully dimmable white mode button.
• See www.traxon-usa.com for details.

6.69"

3.93"

REMOTE DRIVER

Driver must be accessible after installation. For suspended and hard lid ceilings with access panels. Canopy mounts to mud ring attached to J-box. Order **C2RD**.

Max. Wiring Distance (at full load)

Wire Size (AWG)	Distance (ft.)
18	18
16	29
14	46
12	71
10	120

ACRYLIC DIFFUSER CLEANING

Warning: Do not clean with ammonia based cleaners (e.g. Windex®). Use only water or cleaners specifically formulated for cleaning plastics.

LITHONIA LIGHTING®

FEATURES & SPECIFICATIONS

INTENDED USE

Provides maintenance-free, energy-efficient accent and/or task lighting in residential and commercial applications. Mix and match fitters with any number of decorative shades/diffusers from Lithonia Lighting (see shade ordering information on second page) to create a look that perfectly compliments any décor. Ideal for mounting in hallways, over seating areas or flanking mirrors in restrooms.

CONSTRUCTION

Cast aluminum fitters and matching wall brackets are finished in either a bronze or polished brushed nickel.

Includes three set screws which hold decorative shades that mount to the inside of the fitter. These shades have a standard 2-1/4" neck.

Decorative shades that mount to the outside of the fitter include decorative finials or decorative rods, three bronze and three polished brushed nickel each, that screw into the fitter.

Decorative shades are available in hand-blown glass, prismatic glass or metal. All decorative shades fit both fitter styles.

Decorative shades sold separately (see shade ordering information on second page).

OPTICS

Each fitter contains three 3000K high-performance LEDs which maintain 274 lumen output at 50,000-hour life.

ELECTRICAL

LED driver is 120V and operates at 60Hz.

Fully dimmable down to 10%. Works with most standard incandescent dimmers. See chart on next page for suggested dimmers.

INSTALLATION

Fitters can be mounted facing either up or down.

All mounting hardware included.

LISTINGS

CUL listed to U.S. and Canadian safety standards.

WARRANTY

Guaranteed for five years against mechanical defects.

LED Mini-Sconce Fitters with Mix-and-Match Shades

MWS

HIGH-PERFORMANCE LED

lighting facts
LED Product Partner

LED

c(UL)us LISTED

Bullet Fitter

Cylinder Fitter

See next page for decorative shade photos.

Dimensions

Bullet Fitter:	**Cylinder Fitter:**
Height: 5" (12.7)	Height: 4-1/2" (11.4)
Extension From Wall: 6-1/4" (15.9)	Extension From Wall: 5-1/2" (14)
All dimensions are inches (centimeters).	

FITTER ORDERING INFORMATION   For shortest lead times, configure products using **bolded options**.   **Example:** MWSB BZ

MWSB		
Series[1]		**Finish**
MWSB	Bullet LED sconce fitter	**BZ** Bronze
MWSC	Cylinder LED sconce fitter	**BNP** Polished brushed nickel

Notes

1 Decorative shades must be ordered separately.
   See Shade Ordering Information.

SHADE ORDERING INFORMATION   For shortest lead times, configure products using **bolded options**.   **Example:** DTCL 1005

Model (see product images on next page)

DRBL 1001 Ball shade in opal white finish	**DMCN BZ** Metal cone shade in bronze finish	**DSCL 1010** Short cylinder shade in white drizzle finish
DRBL 1008 Ball shade in green melon finish	**DMCN BNP** Metal cone shade in polished brushed nickel finish	**DSBL 1001** Small bell shade in opal white finish
DBEL 1001 Bell shade in opal white finish	**DCBL 1009** Concave bell shade in amber twist finish	**DTCL 1001** Tall cylinder shade in opal white finish
DBIL 1015 Billet shade in rain drop finish	**DGDT 1003** Cylinder dot shade in frosted white finish	**DTCL 1005** Tall cylinder shade in apple red finish
DBLT 1001 Bullet shade in opal white finish	**DGWV 1003** Cylinder wave shade in frosted white finish	**DTCL 1009** Tall cylinder shade in amber twist finish
DBLT 1004 Bullet shade in caramel swirl finish	**DGNG 1007** Glass in glass shade in blue finish	**DTCL 1010** Tall cylinder shade in white drizzle finish
DCNE 1001 Cone shade in opal white finish	**DPRG 1011** Prismatic shade with clear ribbed glass	**DTRB 1014** Top rib shade in caramel mocha swirl finish
DCNE 1002 Cone shade in white melon finish	**DSCL 1001** Short cylinder shade in opal white finish	**DZNT 1003** Zentro shade in frosted white finish
DCNE 1006 Cone shade in cobalt blue finish	**DSCL 1005** Short cylinder shade in apple red finish	**DZNT 1007** Zentro shade in blue finish
DCNE 1008 Cone shade in green melon finish	**DSCL 1009** Short cylinder shade in amber twist finish	

LED Mini-Sconce Fitters and Shades

PHOTOMETRICS

Full photometric data report available within two weeks from request. Consult factory.

Suggested Dimmers

The MWS Series is designed to operate with most standard Triac Based (Forward Phase-Control or Leading Edge) dimmers and is not compatible with 0-10v dimming systems. The following is a list of dimmers tested with the MWS Series and does not imply any guarantee or warranty of compatibility with a particular application. Unlisted dimmers do not imply non-compatibility.

Manufacturer	Series	Part Number(s)
Leviton	Illumitech	IPI06-XXX
Leviton	Trimatron	6602-1, 6681-X, 6683-X, 6684-X, 700-X, 705-X
Leviton	SureSlide	6631
Leviton	True Touch	6606-1LM
Lutron	Skylark	S-600, S2-LH
Lutron	Nova T	NTELV-600
Lutron	Faedra	FAELV-500-XX
Lutron	Acenti	ACE06-XXX
Lutron	Vizia	VZE04

Note: When the installation exceeds 10 fixtures on a single dimmer or distribution lengths exceed 100 feet, please confirm that the end product performs properly. This is a caused by a high degree of variability in the triac dimmers.

SHADES

Shades/diffusers must be ordered separately from fitters. More options may be available (consult factory).
All decorative shades are hand-blown glass (variations in pattern may exist) unless otherwise specified. Shades using decorative rods/finials include rods/finials in both bronze and polished brushed nickel.

DBLT 1001
Opal White Bullet
4-1/2" W X 10-1/2" H

DBLT 1004
Caramel Swirl Bullet
4-1/2" W X 10-1/2" H

DTCL 1001
Opal White Tall Cylinder
3-3/8" W X 9-1/4" H

DTCL 1005
Apple Red Tall Cylinder
3-3/8" W X 9-1/4" H

DTCL 1009
Amber Twist Tall Cylinder
3-3/8" W X 9-1/4" H

DTCL 1010
White Drizzle Tall Cylinder
3-3/8" W X 9-1/4" H

DZNT 1003
Frosted White Zentro
3-5/8" W X 10-3/4" H

DZNT 1007
Blue Zentro
3-5/8" W X 10-3/4" H

DGWV 1003
Frosted White Cylinder Wave
4" W X 7-3/4" H

DGDT 1003
Frosted White Cylinder Dot
4" W X 7-3/4" H

DCBL 1009
Amber Twist Concave Bell
4-1/2" W X 6" H

DBIL 1015
Rain Drop Billet
4-3/8" W X 5-1/2" H

DBEL 1001
Opal White Bell
4-1/2" W X 10-1/2" H

DRBL 1001
Opal White Ball
4" W X 6" H

DRBL 1008
Green Melon Ball
4" W X 6" H

DGNG 1007
Blue Glass In Glass
5" W X 3-3/4" H

DSCL 1001
Opal White Short Cylinder
3-3/8" W X 6" H

DSCL 1005
Apple Red Short Cylinder
3-3/8" W X 6" H

DSCL 1009
Amber Twist Short Cylinder
3-3/8" W X 6" H

DSCL 1010
White Drizzle Short Cylinder
3-3/8" W X 6" H

DTRB 1014
Caramel Mocha Swirl Top Rib
4-3/8" W X 5-1/2" H

DSBL 1001
Opal White Small Bell
4" W X 3" H

DPRG 1011
Clear Ribbed Prismatic (hand cast glass)
6-5/8" W X 3-5/8" H

DCNE 1001
Opal White Cone
5-5/8" W X 3" H

DCNE 1002
White Melon Cone
5-5/8" W X 3" H

DCNE 1006
Cobalt Blue Cone
5-5/8" W X 3" H

DCNE 1008
Green Melon Cone
5-5/8" W X 3" H

DMCN BZ
Bronze Cone (Spun metal)
5-3/8" W X 3" H

DMCN BNP
Polished Brushed Nickel Cone (Spun metal)
5-3/8" W X 3" H

LITHONIA LIGHTING ®
An *Acuity* Brands Company

custom design
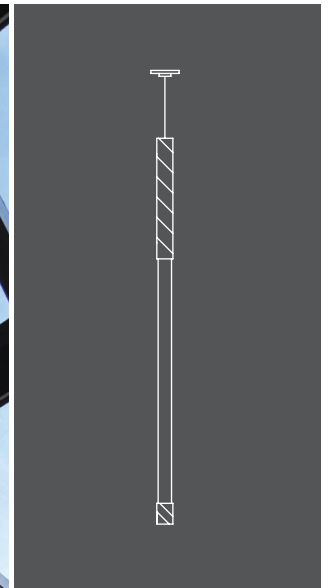
PAVO
Interior Pendant

Integral Ballast

PAVO
Interior Pendant
Intergral Ballast

SIP11575 shown with 24" Cord

SIP11575 shown with 24" Cord & ACC

Cord Mounted 2 Lamp Fixture

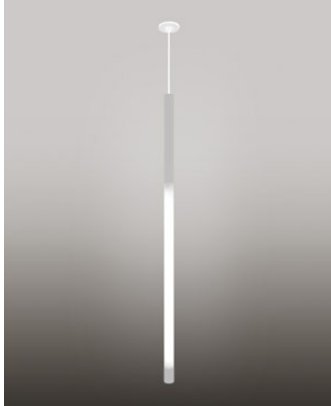|	W	H	OAH
SIP11575	2.5"	71.0"	120.0"

ANG
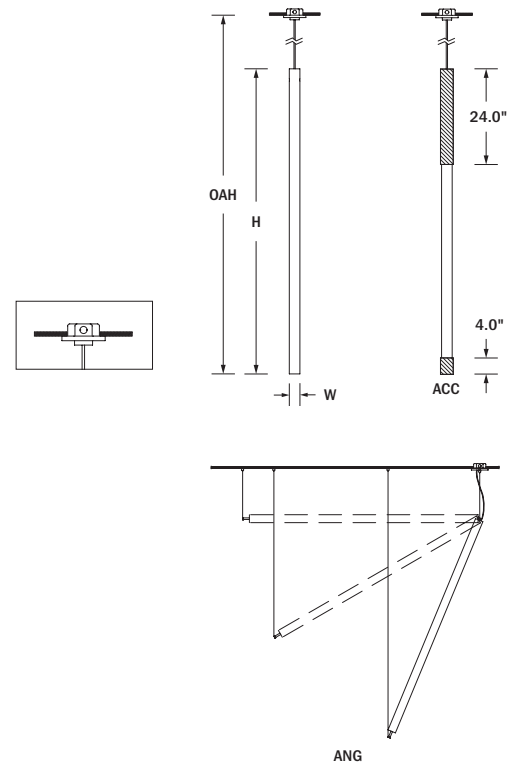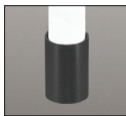
Specifications:

- 48" white power cord standard with a white plastic canopy that fits over a standard 4" octagonal junction box.

- Aluminum construction provides durable protection for internal components and is recyclable.

- Opal diffuser lens enhances a space with filtered illumination.

- External fasteners are not visible, providing a clean fixture design.

- Standard thermoset polyester powder coat paint provides durable protection in a palette of color options. Custom colors available upon request.

- Integral electronic ballast utilizes the latest energy-saving technology to maintain consistent color temperature, CRI and lumen maintenance, while eliminating the need for remote mounting and simplifying installation.

- Fixture design allows relamping without the use of tools, simplifying maintenance.

- Consult factory for downlight option.

- ETL listed to UL standards (US and Canada) for use in damp locations. Not recommended for exterior applications.

SELECT STYLE	SELECT LAMPING	SELECT VOLTAGE	SELECT OPTIONS	SELECT FINISH (for ACC or CAS only)

Lamping Detail

SELECT STYLE	SELECT LAMPING		SELECT VOLTAGE	SELECT OPTIONS		SELECT FINISH
SIP11575	2F28[1]	(2) F28WT5/Mini Bipin	120 277	F	Fusing	PT__ Painted. (Include Paint Number)
				ACC	Decorative Accent Tube	
				MBP	Metal Braided Power Cord	
				CAS	5" Canopy & 48" Stem	
				ANG[2]	Adjustable Angle Mount	
				DM	Dimming	

[1] T5 FL linear lamp(s) not included.

[2] Not available with CAS.

See STILE Finish Selection Guide on page 79.


ANG Angle mount.

PAVO INTERIOR PENDANT
SIP11575

JOB NAME

TYPE

Minimalist form meets functional lighting with the Pavo pendant. A sleek 2.5 inch diameter acrylic lens encloses two T5 lamps and an integral ballast. Power cord suspension adds to the Pavo's minimalist flair by eliminating unnecessary aircraft cables or stems. The Pavo works great in high ceiling applications such as churches, stairwells, and atriums. A splash of color or metal finish can be added to the fixture with the optional tube cover accessory.
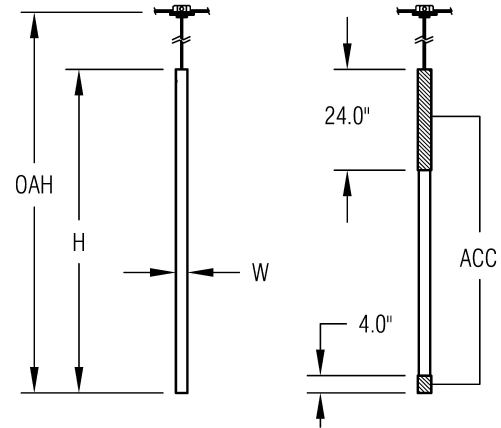
Dimensions

W
2.5 in
6.4 cm

Weight

Hanging weight: 25.0 lb (11.4 kg).

Features

- Aluminum construction provides durable protection for internal components and is recyclable.
- Opal acrylic diffuser lens enhances a space with filtered illumination.
- External fasteners are not visible, providing a clean fixture design.
- Fixture design allows relamping without the use of tools, simplifying maintenance.
- Standard thermoset polyester powder coat paint provides durable protection in a palette of color options. Custom colors available upon request.
- Electronic ballast increases energy savings and performance.
- Integral ballast simplifies installation by eliminating the need to locate, mount and wire a remote ballast.

Technical Notes

Electrical

- 48" white power cord standard.
- Class "A" sound rated ballast for use in low ambient noise applications.
- Meets NEC 410.73 double-ended, fluorescent lamp ballast disconnect requirements.
- ETL listed to UL standards (US and Canada) for use in damp locations. Not recommended for exterior applications.

Mounting

- The white plastic canopy fits over a standard 4" octagonal junction box.
- CAS versions include a 48" painted white stem (PT02).

Additional Documents

MODEL NUMBER	LAMPING	FINISH	VOLTAGE	LAMP OPTIONS	OPTIONS	ACCENT	ACCENT FINSH

Not all options are available in all configurations, consult factory for details.

Lamping

Lamping		Photometry
2F14 [1]	🚫 [2] 2F14WT5/Mini Bipin	
2F21 [3]	🚫 [2] 2F21WT5/Mini Bipin	
2F28 [4]	🚫 [2] 2F28WT5/Mini Bipin	ITL66875

[1] H=46.5in (118.1cm) OAH=96.5in (245.1cm)
[2] T5 & T8 Fluorescent Linear Lamp(s) Not Included
[3] H=58.3in (148.1cm) OAH=108.3in (275.1cm)
[4] H=70.0in (177.8cm) OAH=120.0in (304.8cm)
[5] Not available with CAS.

Voltage

Voltage	
120V	120 Volt
277V	277 Volt

Lamp Options

DM	Dimming
F	Fusing

Options

Options	
ANG [5]	Adjustable Angle Mount
CAS	5" Canopy & 48" Stem

Accent

ACC	Decorative Accents

Painted Finishes

PT01	SuperWhite	PT07	Light Taupe	PT13	Warm Gray	PT19	Blue	PT29	Red Brass	PT42	Sky Blue	PT48	Brass
PT02	White	PT08	Medium Taupe	PT14	Light Gray	PT20	Dark Green	PT31	Medium Bronze	PT43	Teal	PT49	Bronze
PT03	Morning Light	PT09	Medium Gray	PT15	Sage	PT21	Pearl White	PT32	Dark Bronze	PT44	Green		
PT04	Warm White	PT10	Dark Gray	PT16	Spruce	PT22	Platinum	PT33	Dark Blue	PT45	Purple		
PT05	Putty	PT11	Black	PT17	Red	PT27	Deep Copper	PT40	Yellow	PT46	Aluminum		
PT06	Warm Beige	PT12	Dark Chocolate	PT18	Deep Red	PT28	Dark Stainless	PT41	Orange	PT47	Deep Red Brass		

Metal and Plated Finishes

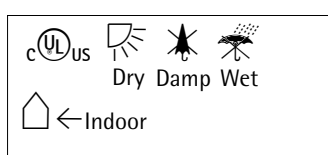|	
BAL	Brushed Aluminum

Kit Details

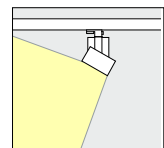

CAS
5" Canopy & 48" Stem

ANG
Adjustable Angle Mount

ERCO

Optec Lens wallwasher

with LED

LED

cULus ☀ ✹ ☂
Dry Damp Wet

🏠 ←Indoor
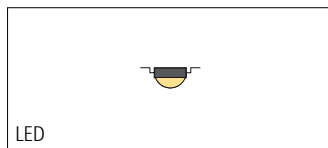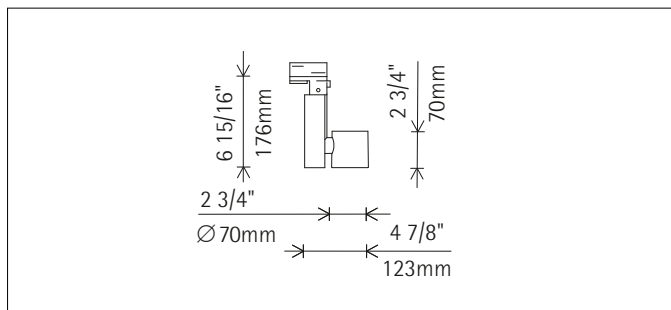
71015.023 White
LED 6W 570lm 3000K warm white
Version 2
Spherolit lens, wallwash

Product description
Cylindrical light head: cast aluminum,
powder-coated. 270° tilt.
Housing: plastic, rotatable on turning
adapter through 360°.
Electronic control gear 120V, 60Hz.
Turning adapter for ERCO 2-circuit
track: plastic.
LED module: high-power LEDs on
metal-core PCB. SDCM<2. CRI>90.
L80/B10 50000h. Collimating lens made
of optical polymer.
Weight 1.26lbs / 0.57kg
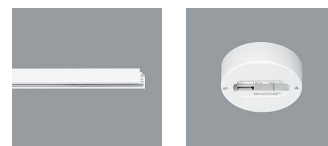
Mounting
ERCO 2-circuit track
Hi-trac 2-circuit track
1-circuit singlet

ERCO

Optec Lens wallwasher

Planning data

Illuminance (fc)
Specifications:
Number of luminaires n > 5
Light loss factor 1.00
Without indirect component
Without peripheral area
Wall height (ft) 10
Angle of tilt 35°
LED 6W 570lm 3000K

Offset from wall (ft)	3		3		4		4	
Luminaire spacing (ft)	3		4		4		5	
Distance from ceiling (ft)	below the luminaire	between the luminaires	below the luminaire	between the luminaires	below the luminaire	between the luminaires	below the luminaire	between the luminaires
1.000	5	5	4	4	2	3	2	2
2.000	12	12	10	9	5	6	4	4
3.000	16	17	14	12	8	8	7	6
4.000	17	18	15	13	9	10	8	7
5.000	16	16	13	12	10	10	8	8
6.000	14	14	12	10	10	9	8	7
7.000	12	12	9	9	9	9	7	7
8.000	10	9	7	7	8	8	7	6
9.000	7	7	6	6	7	7	6	5

6" LED Pendant Mount Cylinder
LD6LED4P
Wet Location
120V, 277V
High Output

LiteForms®

For conversion to millimeters,
multiply inches by 25.4
Not to Scale

APPLICATIONS:
LiteForms™ LD6LED4D Series is a 6" direct wall mount LED cylinder designed to combine superior brightness control with energy savings and long lamp life. Suitable for a variety of commercial, retail, and institutional applications to achieve illumination patterns on vertical walls or columns. Optical lens options in spot, medium, or wide distribution are ideal for higher ceiling applications such as transportation terminals or atrium areas. Suitable for use in ambient temperatures up to 30℃ (86°F) during operation.

HOUSING:
Seamless .058" thick extruded aluminum cylinder body with durable powder coat paint finish in a variety of architectural colors including Prescolite's exclusive Zet, metallic silver.

REFLECTOR:
High purity spun aluminum self-flanged reflector with iridescence suppressed Alzak anodized finish retained by factory installed spring clips and safety cable for ease of maintenance. Provided with integral clear tempered glass lens to protect LEDs.

LED LIGHT ENGINE:
High output LED light engine equipped with (10) high brightness white LEDs (2700K, 3500K, 4000K, or 5000K) on a metal clad circuit board. Secured to an integral die cast aluminum heat sink for excellent thermal management. System designed for optimal life and lumen maintenance (50,000 hours at 70% average lumen maintenance*). *LED life calculations are based upon maintaining application LED junction temperatures and drive currents at or below manufacturer's requirements per IESNA-LM-80-08 test data.

Optics: Vacuum metallized injection molded optical reflector features (10) parabolic LED modules with Prescolite's patented (U.S. Patent No. 6,254,256) American Matte™ finish to produce uniform illumination. Optional optical lenses provide a choice of spot, medium, or wide distribution for added versatility.

LED DRIVER:
Energy efficient solid state constant current electronic driver with 50,000 hour minimum anticipated life. Meets UL Class 2, inherent short-circuit protection, self limited, overload protected.

INSTALLATION:
Easy installation onto standard J-Box.

CERTIFICATIONS:
CSA certified to US and Canadian safety standards. Suitable for wet locations.

WARRANTY:
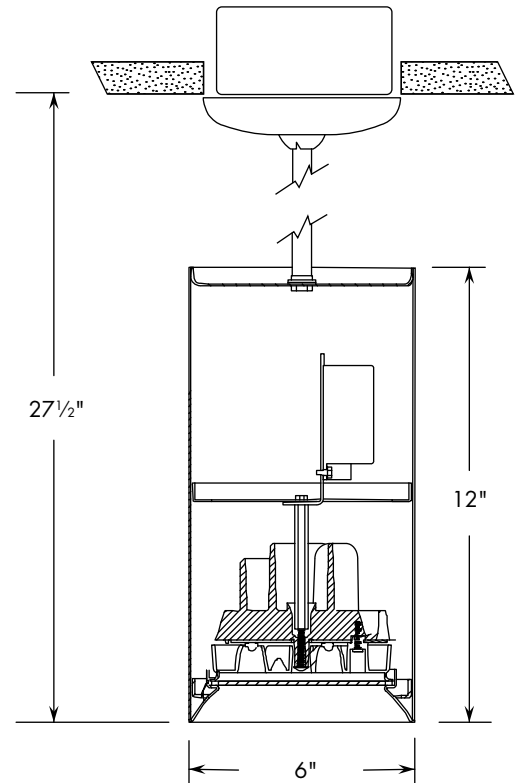3 year warranty
5 year warranty available*
*(See NOTES on page 3)

27½"   12"

6"

CATALOG NUMBER: EXAMPLE: LD6LED4PW35K8FL35 277V Z

CYLINDER	LED COLOR	LED COLOR TEMP	CRI	BEAM ANGLE	VOLTAGE	REF. COLOR	CYLINDER FINISH
❑ **LD6LED4P** 6" Pendant mount high output LED cylinder	❑ **W** White	❑ **27K** 2700 Kelvin	❑ **7** Nominal 70+ CRI	❑ **Blank** Vacuum metalized reflector with 45° cutoff	❑ **Blank** 120V only	❑ **Blank** Clear Alzak	❑ **WH** White
		❑ **35K** 3500 Kelvin	❑ **8** Nominal 80+ CRI	❑ **FL35** Lensed optic with 35° wide distribution and Zet painted faceplate	❑ **277V** 120/277V	❑ **CG** Champagne Gold Alzak	❑ **BL** Black
		❑ **40K** 4000 Kelvin				❑ **BL** Black Alzak	❑ **Z** Zet
		❑ **50K** 5000 Kelvin		❑ **MD25** Lensed optic with 25° medium distribution and Zet painted faceplate	REF. FINISH	❑ **WE** Wheat Alzak	❑ **BA** Brushed Aluminum
					❑ **Blank** Specular	❑ **LW** Light Wheat Alzak	❑ **BZ** Bronze
				❑ **SP18** Lensed optic with 18° spot distribution and Zet painted faceplate	❑ **SS** Semi-Specular	❑ **PW** Pewter Alzak	
						❑ **WH** White Paint	

prescolite
A Division of Hubbell Lighting, Inc.

Web: **www.prescolite.com** • Tech Support: **(888) 777-4832**   **LFO-LED-011**

PHOTOMETRIC DATA

DRIVER DATA

DRIVER DATA	LD6LED4	LD6LED4 277V
Input Voltage	120V +/- 10%	120/277V
Input Frequency	50/60 Hz	50/60 Hz
Input Current	0.235A	0.23A/0.13A
Input Power	28W	27.5/28.5W
Constant Current Output	1400mA	1400mA
Power Factor	≥0.90	0.98/0.78
THD	<20%	<20%
EMI Filtering	FCC 47CFR Part 15, Class A	FCC 47CFR Part 15, Class B
Operating Temperature	-40°C to 60°C	-30°C to 60°C
Dimming	No	No

Over-voltage, over-current, short-circuit protected

LUMEN MULTIPLIER

	2700K	3500K	4000K	5000K
70+ CRI	1.06	1.13	1.20	1.41
80+ CRI	0.89	Baseline	1.10	1.15

Note: Multipliers shown are based on LED manufacturer data and can be used to approximate the lumen intensity of a fixture with different LED color temperature and/or CRI with identical optical configuration and reflector finish. For reference only.

LD6LED4PW35K8
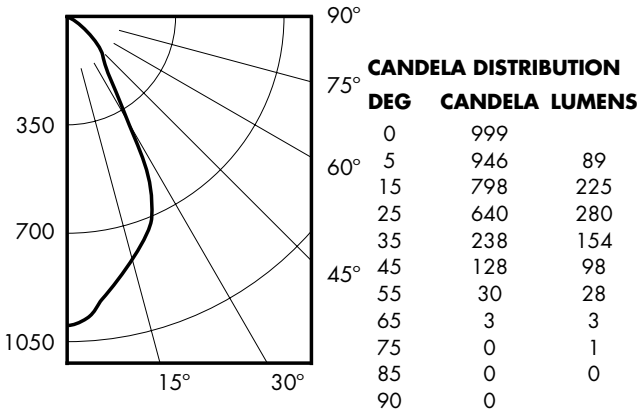LED Light Engine: (10) LED Array 3500K Mid CRI
System Wattage: 27.4
Fixture delivered lumens: 877
Fixture Efficacy: 32
Spacing Criteria: 0.8

Test No. 2925
Tested at 25°C Ambient in accordance to IESNA LM-79-2008

CANDELA DISTRIBUTION

DEG	CANDELA	LUMENS
0	999	
5	946	89
15	798	225
25	640	280
35	238	154
45	128	98
55	30	28
65	3	3
75	0	1
85	0	0
90	0	

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	593	67.7
0-40	748	85.3
0-60	873	99.6
0-90	877	100.0
90-180	0	0.0
0-180	877	100.0

LUMINANCE DATA IN CANDELA/ SQ. METER

Angle in Vertical	Average - 0°
45°	17635
55°	5096
65°	692
75°	0
85°	0

COEFFICIENTS OF UTILIZATION — Zonal Cavity Method

Room Cavity Ratio	80%			70%				50%			30%			10%		
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
1	113	110	108	106	111	108	106	104	104	102	101	100	99	98	97	96	95
2	107	102	98	95	105	101	97	93	97	94	91	94	92	99	92	89	88
3	102	95	90	86	100	94	89	85	91	87	84	88	85	82	86	83	81
4	96	88	83	78	94	87	82	78	85	80	77	83	79	76	81	78	75
5	91	82	76	72	89	81	76	71	80	75	71	78	74	70	76	73	69
6	86	77	71	66	85	76	70	66	75	69	66	73	69	65	72	68	65
7	82	72	66	61	80	71	65	61	70	65	61	69	64	61	68	64	60
8	78	68	62	57	76	67	61	57	66	61	57	65	60	57	64	60	56
9	74	64	58	54	73	63	57	53	62	57	53	61	57	53	61	56	53
10	70	60	54	50	69	60	54	50	59	54	50	58	53	50	57	53	50

LD6LED4PW35K8   Test No. 2925
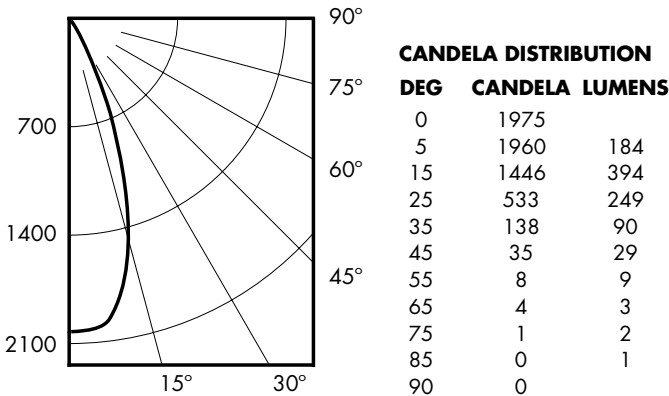

LD6LED4PW35K8FL35
LED Light Engine: (10) LED Array 3500K Mid CRI with Flood Lens
System Wattage: 27.4
Fixture delivered lumens: 959
Fixture Efficacy: 35
Spacing Criteria: 0.6

Test No. 2924
Tested at 25°C Ambient in accordance to IESNA LM-79-2008

CANDELA DISTRIBUTION

DEG	CANDELA	LUMENS
0	1975	
5	1960	184
15	1446	394
25	533	249
35	138	90
45	35	29
55	8	9
65	4	3
75	1	2
85	0	1
90	0	

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	826	86.1
0-40	916	95.5
0-60	954	99.5
0-90	959	100.0
90-180	0	0.0
0-180	959	100.0

LUMINANCE DATA IN CANDELA/ SQ. METER

Angle in Vertical	Average - 0°
45°	4822
55°	1359
65°	922
75°	376
85°	0

COEFFICIENTS OF UTILIZATION — Zonal Cavity Method

Room Cavity Ratio	80%			70%				50%			30%			10%		
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
1	114	112	109	107	112	110	108	106	106	104	103	102	101	99	99	98	97
2	109	105	102	99	107	103	100	98	100	98	95	97	95	93	95	93	91
3	105	99	95	92	103	98	94	91	95	92	89	93	90	88	91	89	87
4	101	94	89	86	99	93	89	85	91	87	84	89	86	83	87	85	82
5	97	89	84	81	95	89	84	80	87	83	80	85	82	79	84	81	78
6	93	85	80	76	91	84	80	76	83	79	76	82	78	75	81	77	75
7	89	81	76	73	88	81	76	72	80	75	72	78	75	72	77	74	71
8	86	78	73	69	85	77	72	69	76	72	69	75	71	69	74	71	68
9	83	75	70	66	82	74	69	66	73	69	66	72	68	66	72	68	65
10	80	72	67	63	79	71	66	63	70	66	63	70	66	63	69	65	63

LD6LED4PW35K8FL35   Test No. 2924

NOTES
Refer to www.prescolite.com for additional photometric tests (IES Files).
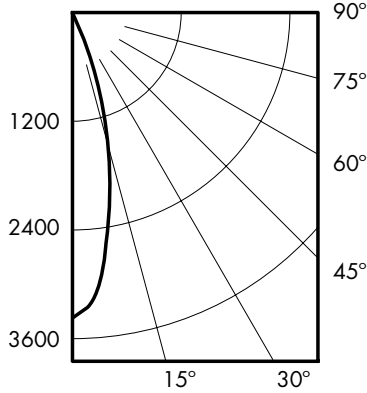
PHOTOMETRIC DATA

LiteForms™- LD6LED4D - 6" Pendant Mount LED Cylinder

LD6LED4PW35K8MD25

LED Light Engine: (10) LED Array 3500K Mid CRI with Medium Lens
System Wattage: 27.4
Fixture delivered lumens: 967
Fixture Efficacy: 35.2
Spacing Criteria: 0.4

CANDELA DISTRIBUTION

DEG	CANDELA	LUMENS
0	3515	
5	3164	280
15	1399	389
25	404	191
35	108	70
45	33	26
55	9	9
65	2	1
75	0	1
85	0	0
90	0	

Test No. 2923
Tested at 25℃ Ambient in accordance to IESNA LM-79-2008

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	859	88.9
0-40	930	96.2
0-60	965	99.8
0-90	967	100.0
90-180	0	0.0
0-180	967	100.0

LUMINANCE DATA IN CANDELA/ SQ. METER

Angle in Vertical	Average - 0°
45°	4547
55°	1529
65°	461
75°	0
85°	0

COEFFICIENTS OF UTILIZATION — Zonal Cavity Method

Room Cavity Ratio	80%			70%				50%			30%			10%		
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
1	115	112	110	108	112	110	108	107	106	105	103	103	101	100	99	98	97
2	110	106	103	100	108	105	102	99	102	99	97	99	97	95	96	94	93
3	106	101	97	94	104	100	96	93	97	94	92	95	93	90	93	91	89
4	102	97	92	89	101	95	91	88	93	90	87	92	89	86	90	87	85
5	99	92	88	84	97	91	87	84	90	86	83	88	85	83	87	84	82
6	96	89	84	81	94	88	84	80	86	83	80	85	82	79	84	81	79
7	92	85	81	77	91	85	80	77	83	80	77	82	79	76	81	78	76
8	89	82	77	74	88	82	77	74	81	77	74	80	76	74	79	76	73
9	87	79	75	72	86	79	74	71	78	74	71	77	74	71	76	73	71
10	84	77	72	69	83	76	72	69	75	72	69	75	71	69	74	71	69

LD6LED4PW35K8MD25   Test No. 2923

LD6LED4PW35K8SP18

LED Light Engine: (10) LED Array 3500K Mid CRI with Spot Lens
System Wattage: 27.5
Fixture delivered lumens: 1108
Fixture Efficacy: 40.2
Spacing Criteria: 0.2
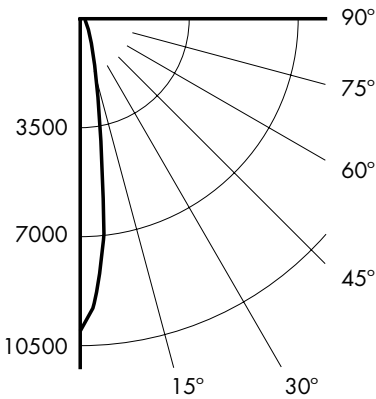
CANDELA DISTRIBUTION

DEG	CANDELA	LUMENS
0	10107	
5	6461	527
15	1283	382
25	295	144
35	52	34
45	19	15
55	6	4
65	1	1
75	0	1
85	0	0
90	0	

Test No. 2922
Tested at 25℃ Ambient in accordance to IESNA LM-79-2008

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	1052	95.0
0-40	1087	98.1
0-60	1106	99.8
0-90	1108	100.0
90-180	0	0.0
0-180	1108	100.0

LUMINANCE DATA IN CANDELA/ SQ. METER

Angle in Vertical	Average - 0°
45°	2618
55°	1019
65°	231
75°	0
85°	0

COEFFICIENTS OF UTILIZATION — Zonal Cavity Method

Room Cavity Ratio	80%			70%				50%			30%			10%		
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
1	115	113	111	108	113	111	110	108	107	106	105	104	103	102	100	99	99
2	112	108	106	102	110	107	104	102	104	102	100	101	99	98	98	97	96
3	109	104	101	97	107	103	100	97	100	98	96	98	96	94	96	94	93
4	106	101	97	94	104	99	96	94	98	95	92	96	93	91	94	92	90
5	103	97	93	90	101	96	93	90	95	92	90	93	91	89	92	90	88
6	100	94	91	88	99	94	90	88	92	89	87	91	89	86	90	88	86
7	98	92	88	85	97	91	88	85	90	87	85	89	86	84	88	86	84
8	95	89	86	83	95	89	85	83	88	85	83	87	84	82	86	84	82
9	93	87	84	81	93	87	83	81	86	83	81	85	83	81	85	82	80
10	91	85	82	79	91	85	82	79	84	81	79	84	81	79	83	81	79

LD6LED4PW35K8SP18   Test No. 2922

NOTES: Refer to www.prescolite.com for additional photometric tests (IES Files).

1. 5 year warranty requires product registration. Warranty limited to repair and replacement of defective parts of the LED system and does not include labor or installation after first year. See www.prescolite.com for details.

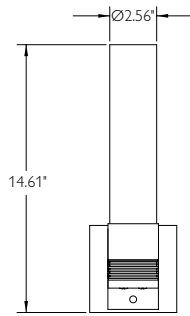2. Operation in ambient temperatures higher than those specified may shorten life and will void warranty.

prescolite

HUBBELL
Hubbell Lighting, Inc.

Pippa LED

Translite sconce
Ordering code

| PPL5 | – | | – | | – | | – | |

Fixture

PPL5
Pippa LED Sconce

Diffuser color

VR	**SW**	**TG**	**PW**
Mt. Vernon Red	Sausalito White	Turner Gold	Polar White

Metal finish

AL	**PN**	**GB**	**WH**
Satin Aluminum	Polished Nickel	Gloss Black	White

Lamping

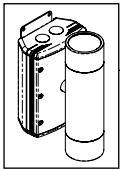| **N2-W**	**N2-N**
One 2.4 watt LED 2700K	One 2.4 watt LED 3500K

Transformer

R	**T**
Remote transformer (ordered separately)[1]	Integral transformer[2]

[1]Fixture mounts to 2" x 3" switch box when used with remote transformer.
[2]Fixture supplied with toroidal transformer. Requires a 4" square, 2" deep j-box (by others).

Ø2.56"

14.61"

- ADA compliant five layered hand-blown glass sconce with white enamel inner casing
- One 2.4W LED in 2700K or 3500K color temperature
- Integral LED driver
- Requires 12V magnetic transformer which can be remote mounted up to 10 feet away or integral to fixture

Pippa LED Double

Translite sconce
Ordering code

| PPL5D | – | | – | | – | | – | |

Fixture

PPL5D
Pippa LED Double Sconce

Diffuser color

VR	**SW**	**TG**	**PW**
Mt. Vernon Red	Sausalito White	Turner Gold	Polar White

Metal finish

AL	**PN**	**GB**	**WH**
Satin Aluminum	Polished Nickel	Gloss Black	White

Lamping

N2-W	**N2-N**
Two 2.4 watt LEDs 2700K	Two 2.4 watt LEDs 3500K

Transformer

R	**T**
Remote transformer (ordered separately)[1]	Integral transformer[2]

[1]Fixture mounts to 2" x 3" switch box when used with remote transformer.
[2]Fixture supplied with toroidal transformer. Requires a 4" square, 2" deep j-box (by others).

Ø2.56"

24.49"

4.95"

- ADA compliant five layered hand-blown glass sconce with white enamel inner casing
- Two 2.4W LED in 2700K or 3500K color temperature
- Integral LED driver
- Requires 12V magnetic transformer which can be remote mounted up to 10 feet away or integral to fixture

BKSSL SOLID STATE LIGHTING

THE POWER OF

PROJECT:	
TYPE:	
CATALOG NUMBER:	
SOURCE:	
NOTES:	

CATALOG NUMBER LOGIC

Example: OL - LED -x21/X21- FL/FL - SAP - 12/12 - 11/11 - B - PM3 - SM -D15/D15- MT -

OL   LED   Up/Down Up/Down   Up/Down Up/Down   Up/Down

Series
OL - Olympus Series™

Source
LED - 'x' Module with Cold Phosphor Technology

LED Type (Select Up and Down)
x21 - 15WLED/2700K
x22 - 15WLED/3000K
x23 - 15WLED/4000K

Optics (Select Up and Down)
SP - Spot (20°)   **FL** - Flood (40°)   **WFL** - Wide Flood (60°)

Finish

Standard Finish		
Powder Coat Color	**Satin**	**Wrinkle**
Bronze	**BZP**	**BZW**
Black	**BLP**	**BLW**
White (Gloss)	**WHP**	**WHW**
Aluminum	**SAP**	—
Verde	—	**VER**

Premium Finish				
ABP	Antique Brass Powder	**CMG**	Cascade Mountain Granite	**RMG**	Rocky Mountain Granite
AMG	Aleutian Mountain Granite	**CRI**	Cracked Ice	**SDS**	Sonoran Desert Sandstone
AQW	Antique White	**CRM**	Cream	**SMG**	Sierra Mountain Granite
BCM	Black Chrome	**HUG**	Hunter Green	**TXF**	Textured Forest
BGE	Beige	**MDS**	Mojave Desert Sandstone	**WCP**	Weathered Copper
BPP	Brown Patina Powder	**NBP**	Natural Brass Powder	**WIR**	Weathered Iron
CAP	Clear Anodized Powder	**OCP**	Old Copper	*Also available in RAL Finishes See submittal SUB-1439-00*	

Lens Type (Select Up and Down)
9 - Clear (Standard)   **10** - Spread Lens*   **12** - Soft Focus Lens*   **13** - Rectilinear Lens*

Shielding (Select Up and Down)
11 - Honeycomb Baffle*
  Accommodates up to 2 Lens/Shielding media

Cap Style
A - 45°   **B** - 90°   **C** - Flush   **D** - 45° without Weep Hole   **E** - 90° without Weep Hole
                                              (Interior Use Only)   *(Interior Use Only)*

Driver Housing
PM3 - Universal Power Module 3

Mounting
CR - Round CamLock™   **SM** - Surface Mount (requires side conduit entry)

Driver Type
D15 - 15W Driver *(non-dimming)*
D15INC - 15W Dimming Driver *(for use with Incandescent Dimmer)*
  120V only

Input Voltage
120 - 120 VAC Input *(for use with D15INC only)*
MT - 120-277 VAC Input

Option
MB - Mounting Brackets *(Optional for CT or CR Mounting only)*

B-K LIGHTING

40429 Brickyard Drive • Madera, CA 93636 • USA
559.438.5800 • FAX 559.438.5900
www.bklighting.com • info@bklighting.com

SUBMITTAL DATE	DRAWING NUMBER
8-28-13	SUB-2006-00

BKSSL
SOLID STATE LIGHTING

THE POWER OF

PROJECT:

TYPE:

SURFACE MOUNT

FRONT VIEW

3 3/8"
(84mm)

2 7/8"
O.C.
(71mm)

(4) Clearance Holes
for 1/4" Fasteners
(By Others)

8 3/4"
O.C.
(224mm)

9 1/4"
(236mm)

7 7/8"
(200mm)

10 1/8"
(259mm)

5 5/8"
(142mm)

SIDE VIEW

A/D CAP

6 7/8"
(173mm)

3 1/4"
(82mm)

4 5/8"
(118mm)

17"
(431mm)

8 1/2"
(216mm)

3 3/8"
(86mm)

3" Dia.
(76mm)

B/E CAP

6 7/8"
(173mm)

3 1/4"
(82mm)

4 5/8"
(118mm)

12 1/8"
(309mm)

6 1/8"
(155mm)

3" Dia.
(76mm)

1"
(25mm)

C CAP

6 7/8"
(173mm)

3 1/4"
(82mm)

4 5/8"
(118mm)

10 1/8"
(259mm)

5 1/8"
(129mm)

3" Dia.
(76mm)

END VIEW

3 1/4" (82mm)
With Supplied
Mounting Bracket

(4) 1/2" Knockouts
For Use with Surface
Conduit (By Others)

CAMLOCK™ MOUNT

FRONT VIEW

7 7/8"
(200mm)

10 1/8"
(259mm)

5 5/8"
(142mm)

SIDE VIEW

A/D CAP

6 7/8"
(175mm)

3 1/4"
(84mm)

4"
(100mm)

17"
(431mm)

8 1/2"
(216mm)

3 3/8"
(86mm)

3" Dia.
(76mm)

B/E CAP

6 7/8"
(175mm)

3 1/4"
(84mm)

4"
(100mm)

12 1/8"
(309mm)

6 1/8"
(155mm)

3" Dia.
(76mm)

1"
(25mm)

C CAP

6 7/8"
(175mm)

3 1/4"
(84mm)

4"
(100mm)

10 1/8"
(100mm)

5 1/8"
(129mm)

3" Dia.
(76mm)

END VIEW

3 1/4" (82mm)
With Supplied
Mounting Plate

(4) 1/2" Knockouts
For Use with Surface
Conduit (By Others)
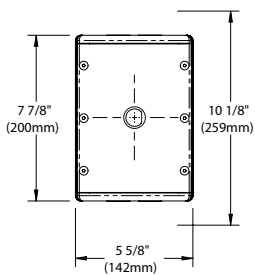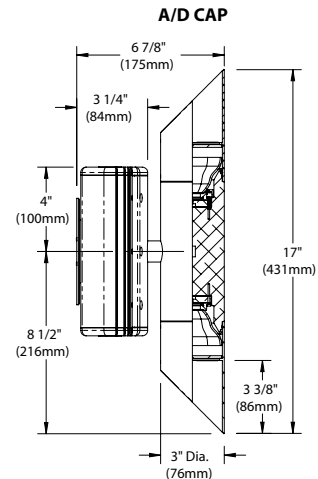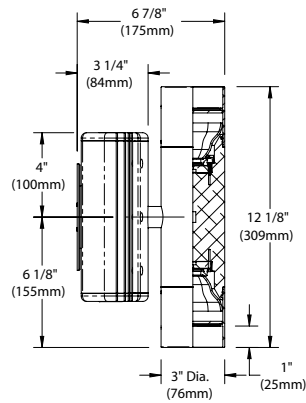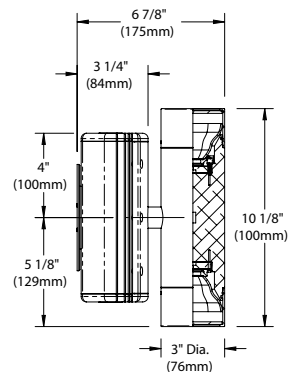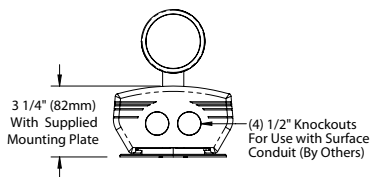
CAMLOCK CANOPY

ROUND

3/8"

3 1/2"
O.C.

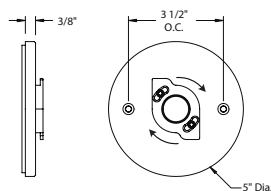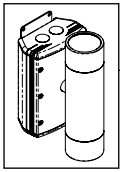5" Dia.

All dimensions indicated on this submittal are nominal.
Contact Technical Sales if you require more stringent specifications.

B-K LIGHTING

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SUBMITTAL DATE
8-28-13

DRAWING NUMBER
SUB-2006-00

BKSSL SOLID STATE LIGHTING

THE POWER OF

PROJECT:	
TYPE:	

LM79 DATA

BK No.	CCT (Typ.)	CRI (Ra. Typ.)	Color Consistency	Input Watts (Typ.)
x21	2700K	>80	±40K	15
x22	3000K	>80	±50K	15
x23	4000K	>80	±70K	15

L70 DATA

Minimum Rated Life (hrs.) 70% of initial lumens (L_{70})
50,000
50,000
50,000

OPTICAL DATA

Beam Type	Angle
Spot	20°
Flood	40°
Wide Flood	60°

DRIVER ELECTRICAL DATA

TYPE	AC INPUT RANGE	Frequency Hz	DIMMING	POWER FACTOR	THD	OPER. AMBIENT TEMPERATURE	DIMMER TYPE	DIMMER RANGE
D15	120/208/240/277	50/60	NO	>0.92	≤20%	-30° C ~ 50°C	—	—
D15INC	120	50/60	YES	>0.96	≤20%	-30° C ~ 60°C	Incandescent	10-100%

SPECIFICATIONS

GreenSource Initiative™
Metal and packaging components are made from recycled materials. Manufactured using renewable solar energy, produced onsite. Returnable to manufacturer at end of life to ensure cradle-to-cradle handling. Packaging contains no chlorofluorocarbons (CFC's). Use of this product may qualify for GreenSource efficacy and recycling rebate(s). Consult www.bklighting.com/greensource for program requirements.

Materials
Furnished in Copper-Free Aluminum (Type 6061-T6).
_____

FIXTURE (Olympus™)

Body
Fully machined from solid billet. Unibody design provides enclosed, water-proof wireway and integral heat sink for maximum component life. High temperature, silicone 'O' Ring provides water-tight seal.

Cap
Fully machined. Accommodates [2] lens or louver media. Choose from 45° cutoff ('A' or 'D'), 1" deep bezel with 90° cutoff ('B' or 'E') or flush lens ('C') cap styles. 'A' and 'B' caps include weep-hole for water and debris drainage. 'D' and 'E' caps exclude weep-hole and are for interior use only.

Lens
Shock resistant, tempered, glass lens is factory adhered to fixture cap and provides hermetically sealed optical compartment.

BKSSL™
Integrated solid state system with 'x' technology is scalable for field upgrade. Modular design with electrical quick disconnects permit field maintenance.

LM-80 certified. Minimum 50,000 hour rated life at 70% of initial lumens (L70). BKSSL technology provides long life, significant energy reduction and exceptional thermal management.

Color Management
Corrected cold phosphor technology delivers near-perfect natural white light. Long term phosphor maintenance over product life. Exact color point conformity exceeds ANSI C78.377 standard. Provides uniform beam with no color variation over angle. Module exceeds 80 CRI (RA>80, R9>16).

Optics
Interchangeable OPTIKIT™ modules permit field changes to optical distribution.

Wiring
Teflon® coated, 18AWG, 600V, 250° C rated and certified to UL 1659 standard.

Hardware
Tamper-resistant, stainless steel hardware. Canopy mounting screws are additionally black oxide treated for additional corrosion resistance.
_____

DRIVER HOUSING (PM3™)

Surface Mount
For use with side entry, surface conduits. Stainless steel mounting brackets provide for direct anchor to architectural surfaces in any orientation.

Round CamLock™ Canopy (Recessed Junction Box)
5" diameter, machined aluminum construction. Includes stainless steel universal mounting ring for use with 4" octagonal junction box. [2] tamper-resistant, black oxide stainless steel mounting screws. 1/8" thick HT-805A silicone foam gasket for water-tight seal. Integral CamLock™ provides additional 30° adjustment for precision alignment of UPM regardless of junction box orientation. Integral wiper seal maintains water-tight integrity between UPM and junction box. Optional stainless steel mounting brackets may be specified to provide additional anchor to architectural surface.

Housing
Copper free, aluminum extrusion with die cast end caps. Surface mounted with flow through back channel to prevent water and debris collection. Machined aluminum cover with countersunk holes for flush hardware installation. Tamper-resistant, captive, black oxide stainless steel mounting screws. Front access for ease of installation and inspection. [2] 1/2" NPT female conduit entries per end cap for through wiring.

Installation Tether
Stainless steel cable with integral loop allows cover to temporarily suspend from housing during installation to simplify wire connection and component attachment.

Patented Knockouts
[4] 3/4" NPT, machined aluminum knockouts. High temperature, silicone 'O' Ring for water-tight seal. Patented design allows knockout to be reinserted without compromising seal integrity.

Drivers
[2]700mA, Class A, constant current drivers. 120-277VAC (nominal) primary input voltage. 50/60Hz. >0.94 Power Factor, <15.0A in-rush current, 0.25A input current, ≤20%THD (nominal at 120VAC full load). Output over-voltage, over-current, and short circuit protection with auto recovery. EMC: FCC47CFR Part 15 Class B compliant.

Dimming drivers for use with standard incandescent dimmers. 10-100% range.
_____

Finish
StarGuard®, our exclusive RoHs compliant, 15 stage chromate-free process cleans and conversion coats aluminum components prior to application of Class 'A' TGIC polyester powder coating. Finish to match fixture.

Warranty
5 year limited warranty.

Certification and Listing
Olympus™
ITL tested to IESNA LM-79. Lighting Facts Registration per USDOE (www.lightingfacts.com). ETL Listed to ANSI/UL Standard 1598 and Certified to CAN/CSA Standard C22.2 No. 250. RoHs compliant. Suitable for indoor or outdoor use. Suitable for use in wet locations. IP66 Rated. Made in USA.

PM3
NEMA 4X / IP-66 Rated Enclosure. ETL Listed to ANSI/UL Standard 50/50E and Certified to CAN/CSA Standard C22.2 No. 94.1/94.2. RoHs compliant. Made in USA.

*Teflon is a registered trademark of DuPont Corporation.

B-K LIGHTING

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LED

lighting facts®

A Program of the U.S. DOE

Light Output (Lumens)	**1280**
Watts	**34.5**
Lumens per Watt (Efficacy)	**37**

Color Accuracy
Color Rendering Index (CRI)   **80**

Light Color
Correlated Color Temperature (CCT)   **2687 (Warm White)**

Warm White	Bright White	Daylight
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 for details.

Registration Number: GCXV-WSS3KJ (7/6/2012)
Model Number: OL-LED-X21
Type: Surface-mounted fixture (other)

UT-300 Ultrasonic Occupancy Sensors

UT-300
UT-305
UT-355

1. The occupancy sensors shall be capable of detecting presence in the control area via Doppler shifts in transmitted ultrasound.

2. Sensors shall use Watt Stopper's patented ultrasonic diffusion technology that spreads coverage to a wider area.

3. Ultrasonic sensing shall be volumetric in coverage with a frequency of 40 KHz. It shall utilize Advance Signal Processing, which automatically adjusts the detection threshold dynamically to compensate for constantly changing levels of activity and airflow throughout controlled space.

4. To avoid false on activation and to provide immunity to RFI and EMI, Detection Signature Analysis shall be used to examine the frequency, duration, and amplitude of a signal so as to only respond to those signals caused by human motion.

5. Sensors of varying frequencies shall not be allowed so as to prevent sensors from interfering with each other and to assure compatibility in the event more sensors are added.

6. UT-300 and UT-305 sensors shall operate at 24 VDC/VAC and half-wave rectified and utilize a Watt Stopper power pack.

7. UT-355 shall incorporate a switching power supply for reduced power consumption; operate at 120/230/277/347 VAC, 50/60 HZ; and not require a power pack.

8. Detection shall be maintained only when a person of average size and weight moves within a maximum distance of twelve inches horizontally or vertically at the approximate speed of 12 inches per second. The sum of this distance, volume and speed represents the average condition ultrasonic sensors must meet so that the lights not go off when a person is reading or writing while seated at a desk.

9. The UT-300 and UT-305 sensors shall have a manual-on function that is facilitated by installing a momentary switch.

10. Sensors shall be mounted to the ceiling with a flat, unobtrusive appearance and provide 360° of coverage.

11. Sensors shall utilize SmartSet™ technology that automatically adjusts time delay settings to fit occupants' usage patterns for optimal energy efficiency. SmartSet feature shall be selectable with a DIP switch. Sensor shall have user-adjustable sensitivity setting.

12. Sensor shall feature a walk-through mode that turns lights off three minutes after the area is initially occupied if no motion is detected after the first 30 seconds.

13. Sensors shall cover 360° and walking motion up to 500 square feet for UT-300-1/UT-305-1/UT-355-1, 1000 square feet for UT-300-2/UT-305-2/UT-355-2, and 2000 square feet for UT-300-3/UT-305-3/UT-355-3.

14. Hallway and corridor sensors shall be a UT-300-3/UT-305-3/UT-355-3 and shall cover 45 feet in each direction for a ten-foot wide walled hallway.

15. UT-300 sensor shall have an additional single-pole, double throw isolated relay with normally open, normally closed, and common outputs. The isolated relay shall be for use with HVAC control, data logging, and other control options.

16. Sensors shall have a DIP switch-adjustable time delay of five to 30 minutes.

17. Sensors shall feature terminal style wiring for easier installation.

18. The sensor shall have a constantly active LED indicator to verify detection within the control area. Disabling LED for applications that requires less visibility shall be possible.

19. To ensure quality and reliability, sensor shall be manufactured by an ISO 9002-certified manufacturing facility and shall have a defect rate of less than 1/3 of 1%.

20. Sensor shall have standard five-year warranty and shall be UL and CUL listed.

WattStopper

legrand

UT-300 Series Ultrasonic Low Voltage Ceiling Sensors

Architecturally appealing low-profile appearance

Accepts low-voltage switch input for manual-on operation

Plug terminal wiring for quick and easy installation

Walk-through mode increases savings potential

Ultrasonic diffusers give more comprehensive coverage

Automatic or manual-on operation when used with a BZ-150 Power Pack

PROJECT	
LOCATION/TYPE	

Product Overview

Description

WattStopper's UT-300 Ultrasonic Ceiling Sensors automatically turn lighting on and off based on occupancy. The sensors mount on the ceiling with a flat, unobtrusive appearance and provides 360° coverage.

Operation

UT-300 Series Sensors operate on 24 VDC, VAC or halfwave rectified. They use 40 KHz high frequency ultrasound to sense occupancy and automatically turn lighting on. When no occupancy is detected for the length of the time delay, lighting automatically turns off. For manual-on operation, the units work with a low-voltage momentary switch.

Time Delay Options

The UT-300 is factory set for a 20 minute time delay, ideal for both energy savings and user satisfaction in most applications. Installers can quickly select other fixed time delays (5, 10, 15 or 30 minutes) via DIP switches. Fixed time delays eliminate the occupant dissatisfaction associated with an automatically adjusted time delay option, and reduce callbacks. Walk-through mode may be enabled for added energy savings in spaces with frequent transient traffic.

Application

UT-300 Series Sensors offer excellent control of lighting for many spaces, including restrooms, large offices, open office areas and hallways. They can control large partitioned office spaces when configured in zone patterns. Unit performance combined with ease of installation will provide fast payback and many years of energy savings.

Features

- Advanced control logic based on RISC microcontroller provides:
  - Advanced Signal Processing eliminates false triggers and provides immunity to RFI and EMI
  - Walk-through mode turns lights off three minutes after the area is initially occupied – ideal for brief visits such as mail delivery
- LED indicates occupancy detection
- Coverage 500-2,000 square feet
- Available with isolated relay for integration with BAS or HVAC

- DIP switch simplifies sensor adjustments
- Patented ultrasonic diffusion technology spreads coverage to a wider area
- UT-300 Series Sensors work with low-voltage momentary switches for manual control
- Clip mounting system makes ceiling tile installation simple
- Uses plug terminal wiring system for quick and easy installation
- Qualifies for ARRA-funded public works projects
- Sensor coverage tested to NEMA Guide Publication WD 7-2000

WattStopper®
www.wattstopper.com
800.879.8585

Specifications

- 24 VDC/VAC
- Time delays: 5, 10, 15, 20 or 30 minutes, Walk-through/Test Modes
- Sensitivity adjustment: variable with trimpot
- Ultrasonic frequency: 40 kHz
- UT-300 contains isolated relay with N/O and N/C outputs; rated for 1 Amp at 30 VDC/VAC

- Mounting options: ceiling tile; 4" square junction box with double-gang mud ring
- Max. UT-300s per power pack: B=2, BZ=3
  Max. UT-305s per power pack: B=3, BZ=4
- Dimensions: 4.5" x 1" (114.3mm x 25.9mm) diameter x depth
- UL and cUL listed
- Five year warranty

Wiring & Mounting

Wiring Diagram
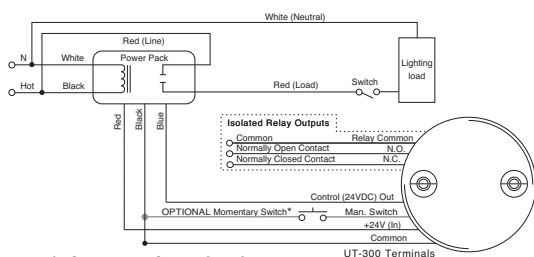
* Connect wire only when momentary switch is installed

Ceiling Mounting
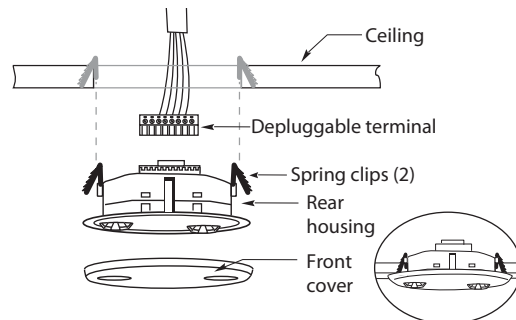
Controls & Settings

Product Controls
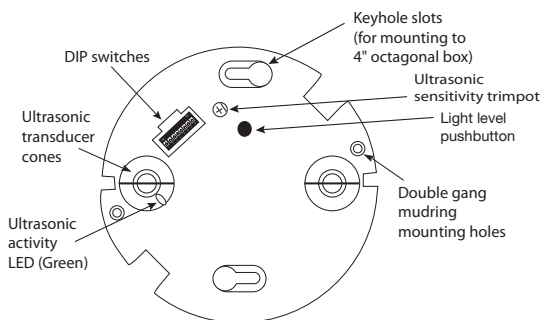
DIP Switch Settings

Feature	Switch#		
Time Delay	**1**	**2**	**3**
Test Mode/20 min	↓	↓	↓
30 seconds	↓	↓	↑
5 minutes	↓	↑	↓
10 minutes	↓	↑	↑
15 minutes	↑	↓	↓
20 minutes	↑	↓	↑ ◀
25 minutes	↑	↑	↓
30 minutes	↑	↑	↑

Walk-Through	4
Enabled	↑
Disabled	↓ ◀

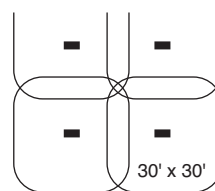| Service	5
Service	↑
Normal	↓ ◀

◀ = Factory Setting
↑ = ON
↓ = OFF

Coverage & Placement

Coverage Patterns
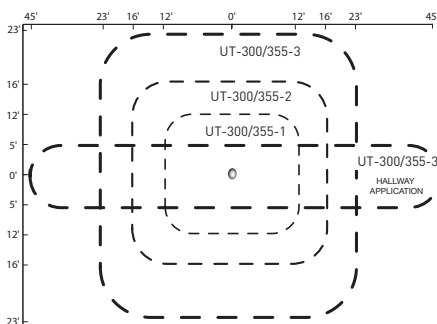
Coverages shown represent half-step walking motion when sensor is mounted 8'-10' high. Actual coverage can vary for each application depending on the shape and use of space and the obstacles present.

Placement

Typical layout for open office space would be to place UT-300-3 sensors so they control zones that overlap. For partitioned spaces, a typical zone is about 25' x 25' with an overlap on the coverage up to 30' x 30'.

Ordering Information

Catalog No.	Voltage	Current	Coverage	Feature
☐ UT-300-1	24 VDC	40 mA	500 ft² (46.5 m²)	Isolated relay
☐ UT-300-1-U				
☐ UT-300-2	24 VDC	40 mA	1000 ft² (92.9 m²)	Isolated relay
☐ UT-300-2-U				
☐ UT-300-3	24 VDC	45 mA	2000 ft² (185.8 m²)	Isolated relay
☐ UT-300-3-U				
☐ UT-305-1	24 VDC	30 mA	500 ft² (46.5 m²)	
☐ UT-305-2	24 VDC	30 mA	1000 ft² (92.9 m²)	
☐ UT-305-3	24 VDC	35 mA	2000 ft² (185.8 m²)	

All units are white and use WattStopper power packs.
Current consumption can be slightly higher when only one sensor per power pack is used.
-U = ARRA compliant. Product produced in the U.S.