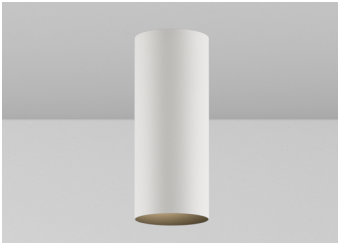
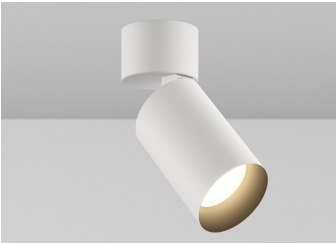


# CYLINDER 3 INTERNATIONAL SURFACE MOUNT



Our best-selling cylinders keep getting better. Adjustable, fixed, and wallwash are all offered in a broad range of sizes, with lumens from 500 to almost 5000lm, standard 90° tilt, and more than a dozen finish options. Now, there's a fixture for anywhere you need to illuminate anything.

PROJECT NAME:

TYPE:



## ORDERING INFORMATION

CYLINDER	FUNCTION	RATING	CYLINDER FINISH	BAFFLE FINISH	CRI / WATTAGE PACKAGE	CCT	OPTIC (UGR)	MEDIA	POWER SUPPLY	MOUNTING
CY3X										EXMP
CY3X 99mm Ø	AD 90° Adjustable	1 Dry / Damp (IP30) 2 Wet (IP65)	POWDERCOAT FINISHES	POWDERCOAT FINISHES	 <b>STATIC WHITE</b> 80S11B 80+ CRI, 11 Watts 1240 lm delivered 80S17B 80+ CRI, 17 Watts 1943 lm delivered 80S23B 80+ CRI, 23 Watts 2559 lm delivered 80S32B 80+ CRI, 32 Watts 3372 lm delivered 80S38B* 80+ CRI, 38 Watts 3932 lm delivered *(Remote driver required) 90S11B 90+ CRI, 11 Watts 1060 lm delivered 90S17B 90+ CRI, 17 Watts 1661 lm delivered 90S23B 90+ CRI, 23 Watts 2187 lm delivered 90S32B 90+ CRI, 32 Watts 2882 lm delivered 90S38B* 90+ CRI, 38 Watts 3361 lm delivered *(Remote driver required) 97S11B 97+ CRI, 11 Watts 975 lm delivered 97S17B 97+ CRI, 17 Watts 1528 lm delivered 97S23B 97+ CRI, 23 Watts 2012 lm delivered 97S32B 97+ CRI, 32 Watts 2651 lm delivered 97S38B* 97+ CRI, 38 Watts 3092 lm delivered *(Remote driver required)	24 2400K* *(90+CRI only, 17W max) 27 2700K 30 3000K 35 3500K 40 4000K	10 10° (<10) *(17 Watts only) 15 15° (<13) 20 20° (<10) 25 25° (<10) 40 40° (<10) 60 60° (<13) WW Wallwash* *(Required for WW & AW fixture)	STANDARD MEDIA 4 Soft Focus Lens (SFL)* *(Required for 10° optic)  ALTERNATE MEDIA 0 No Lens* *(Not available for Warm Dim or Wet Location) 2 Honey Comb Louver (HCL)* *(Not available for Warm Dim or Wet Location) 3 Clear Glass Lens (CGL)* *(Not available for Warm Dim or Wet Location) 5 Frosted Glass Lens (FGL) 6 Frosted Soft Focus Lens (FSFL) 7 Frosted Linear Spread Lens (FLSL) C Clear Glass Film w/ Honeycomb Louver S Soft Focus Film w/ Honeycomb Louver W Wallwash Lens* *(Required for WW and AW fixture)	INTEGRAL 2IE Electronic Forward / Reverse 220V-240V  REMOTE (220-277V) 2EG eldoLED, SOLOdrive 0.1% 0-10V, LOG 2EN eldoLED, SOLOdrive 0.1% 0-10V, LIN 2ED eldoLED, SOLOdrive 0.1% DALI, LOG 2LD eldoLED, SOLOdrive 0.1% DALI, LIN	EXMP Export Mounting Plate Features 89mm diameter canopy
	AS 90° Adjustable Shallow Canopy* *(Remote driver only)		WH White	WH White						
	AW Adjustable Wallwash		AG Satin Silver	AG Satin Silver						
	FB Fixed		AU Cashmere Gold	AU Cashmere Gold						
	WW Wallwash Fixed		AB Architectural Bronze	AB Architectural Bronze						
			BB Burnt Bronze	BB Burnt Bronze						
			BK Black	BK Black						
			CF Custom Finish* *(Consult Factory)	CF Custom Finish* *(Consult Factory)						
			ALUMINA FINISHES	ALUMINA FINISHES						
			01 Brushed Obsidian	01 Brushed Obsidian						
	02 Matte Obsidian	02 Matte Obsidian	03 Brushed Dark Patinated Bronze	03 Brushed Dark Patinated Bronze	 <b>WARM DIM</b> 90W24B 90+ CRI, 24 Watts Incandescent Profile 1642 lm delivered Halogen Profile 1777 lm delivered *SEE PAGE 4 FOR DETAILED PERFORMANCE CONFIGURATIONS AND WARM DIM PROFILE COMPARISON.	WL 2700K - 1800K  WD 3000K - 1800K	20 20° (<10) 25 25° (<10) 40 40° (<10) 60 60° (<10) WW Wallwash *(Required for WW & AW fixture)			
	04 Matte Dark Patinated Bronze	04 Matte Dark Patinated Bronze	04 Matte Dark Patinated Bronze	04 Matte Dark Patinated Bronze						
	05 Brushed Aged Aluminum	05 Brushed Aged Aluminum	05 Brushed Aged Aluminum	05 Brushed Aged Aluminum						
	06 Matte Aged Aluminum	06 Matte Aged Aluminum	06 Matte Aged Aluminum	06 Matte Aged Aluminum						
	07 Brushed Cast Brass	07 Brushed Cast Brass	07 Brushed Cast Brass	07 Brushed Cast Brass						
	08 Matte Cast Brass	08 Matte Cast Brass	08 Matte Cast Brass	08 Matte Cast Brass						
	09 Brushed Light Patinated Bronze	09 Brushed Light Patinated Bronze	09 Brushed Light Patinated Bronze	09 Brushed Light Patinated Bronze						
	10 Matte Light Patinated Bronze	10 Matte Light Patinated Bronze	10 Matte Light Patinated Bronze	10 Matte Light Patinated Bronze						
		FINISH IMAGES ON PAGE 2	FINISH IMAGES ON PAGE 2	FINISH IMAGES ON PAGE 2						

### PART NUMBER NOTES

- CY3X ships as e.g., CY3XAD1WHWH80S17A304042EA2
- Remote driver ships as e.g., PS-RMT-80S17A-2EG2

# CYLINDER 3 INTERNATIONAL SURFACE MOUNT

## ACCESSORIES

### REPLACEMENT MEDIA

Dry / Damp location only, consult factory for wet location replacements

- ☐ **SFL-CY3X-03** Soft Focus Lens
- ☐ **HCL-CY3X-03** Honeycomb Louver \*

\*(Not available for Warm Dim)

- ☐ **CGL-CY3X-03** Clear Glass Lens \*

\*(Not available for Warm Dim)

- ☐ **FGL-CY3X-03** Frosted Glass Lens
- ☐ **FSFL-CY3X-03** Frosted Soft Focus Lens
- ☐ **FLSL-CY3X-03** Frosted Linear Spread Lens
- ☐ **CGL-HCL-CY3X-03** Clear Glass Film W/ Honeycomb Louver
- ☐ **SFL-HCL-CY3X-03** Soft Focus Film W/ Honeycomb Louver

### STATIC WHITE REPLACEMENT OPTICS

- ☐ **RO-70-15-S** 15° optic
- ☐ **RO-70-20-S** 20° optic
- ☐ **RO-70-25-S** 25° optic
- ☐ **RO-70-40-S** 40° optic
- ☐ **RO-70-60-S** 60° optic

### WARM DIM REPLACEMENT OPTICS

- ☐ **RO-70-20-W** 20° optic
- ☐ **RO-70-25-W** 25° optic
- ☐ **RO-70-40-W** 40° optic
- ☐ **RO-70-60-W** 60° optic

### TUNABLE WHITE REPLACEMENT OPTICS

- ☐ **RO-70-15-T** 15° optic
- ☐ **RO-70-20-T** 20° optic
- ☐ **RO-70-25-T** 25° optic
- ☐ **RO-70-40-T** 40° optic
- ☐ **RO-70-60-T** 60° optic

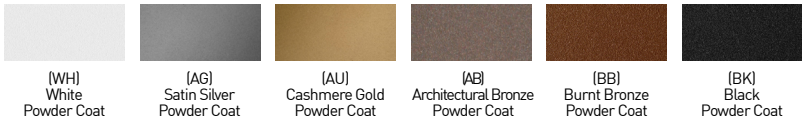
### EMERGENCY LIGHTING - REMOTE MOUNT ONLY

During disruption of main power, emergency battery inverter provides temporary 120V or 277V to fixture.

- ☐ **EMB-S-25-120/277-LEDX** 25 watt max capacity, 120 or 277 VAC 60Hz
- ☐ **EMB-S-100-120-LEDX** 100 watt max capacity, 120 VAC 60Hz, 0-10V dimmable
- ☐ **EMB-S-100-277-LEDX** 100 watt max capacity, 277 VAC 60Hz, 0-10V dimmable
- ☐ **EMB-S-250-120/277-LEDX** 250 watt max capacity, 120 or 277 VAC 60Hz

\*SHUNT REQUIRED FOR USE WITH ATHENA AND CASAMBI CONTROLS, CONSULT FACTORY FOR DETAILS.

## POWDERCOAT FINISHES

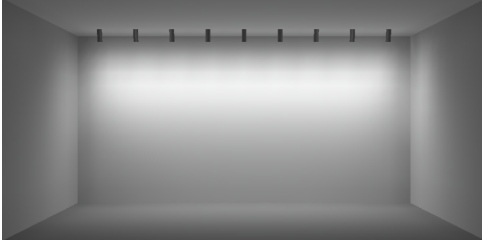


## ALUMINA FINISHES BY LUCIFER LIGHTING™



# CYLINDER 3 INTERNATIONAL SURFACE MOUNT

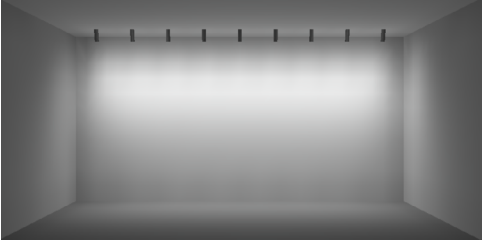
## WALLWASH DESIGN GUIDE



**10° TILT**

**30" SETBACK / 30" ON CENTER SPACING**

- 10FT CEILING SHOWN / 8-12FT IDEAL
- AVERAGE FC: 59.81
- MAX / MIN: 6.11
- 9 FIXTURES / 25FT WALL SHOWN

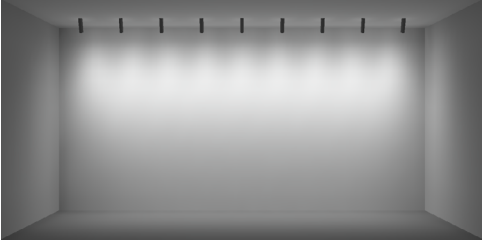


**RECOMMENDED**

**15° TILT**

**36" SETBACK / 36" ON CENTER SPACING**

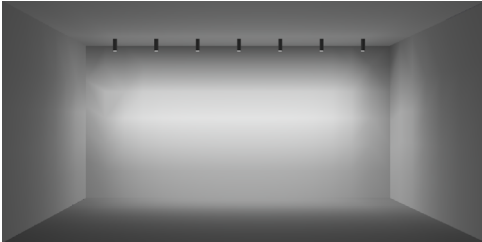
- 10FT CEILING SHOWN / 8-12FT IDEAL
- AVERAGE FC: 52.90
- MAX / MIN: 5.47
- 9 FIXTURES / 30FT WALL SHOWN



**20° TILT**

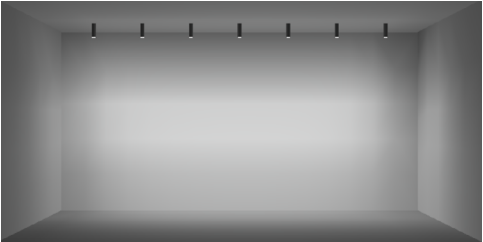
**42" SETBACK / 42" ON CENTER SPACING**

- 10FT CEILING SHOWN / 8-12FT IDEAL
- AVERAGE FC: 47.58
- MAX / MIN: 5.10
- 9 FIXTURES / 35FT WALL SHOWN



**30" SETBACK / 42" ON CENTER SPACING**

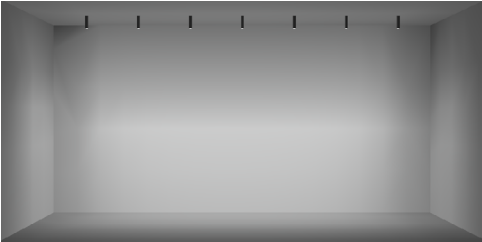
- 10FT CEILING SHOWN / 8-12FT IDEAL
- AVERAGE FC: 38.76
- MAX / MIN: 6.49
- 9 FIXTURES / 25FT WALL SHOWN



**RECOMMENDED**

**36" SETBACK / 48" ON CENTER SPACING**

- 10FT CEILING SHOWN / 8-12FT IDEAL
- AVERAGE FC: 31.26
- MAX / MIN: 6.32
- 9 FIXTURES / 30FT WALL SHOWN



**42" SETBACK / 54" ON CENTER SPACING**

- 10FT CEILING SHOWN / 8-12FT IDEAL
- AVERAGE FC: 25.34
- MAX / MIN: 6.22
- 9 FIXTURES / 35FT WALL SHOWN

### ADDITIONAL SETBACKS AND SPACINGS

ON CENTER SPACING	SETBACK / TILT			ON CENTER SPACING	SETBACK		
	30" / 10°	36" / 15°	42" / 20°		30"	36"	42"
30"	SHOWN ABOVE	AVERAGE FC: 61.83 MAX / MIN: 5.46	AVERAGE FC: 63.70 MAX / MIN: 5.22	42"	SHOWN ABOVE	AVERAGE FC: 34.94 MAX / MIN: 6.44	AVERAGE FC: 31.32 MAX / MIN: 6.35
36"	AVERAGE FC: 51.17 MAX / MIN: 6.25	SHOWN ABOVE	AVERAGE FC: 54.57 MAX / MIN: 5.10	48"	AVERAGE FC: 34.66 MAX / MIN: 6.34	SHOWN ABOVE	AVERAGE FC: 28.02 MAX / MIN: 6.22
42"	AVERAGE FC: 44.58 MAX / MIN: 6.55	AVERAGE FC: 46.13 MAX / MIN: 5.63	SHOWN ABOVE	54"	AVERAGE FC: 31.32 MAX / MIN: 6.57	AVERAGE FC: 28.22 MAX / MIN: 6.36	SHOWN ABOVE

**\*ALL DATA REFLECTS 90S17B WATTAGE PACKAGE**

CYLINDER 3 INTERNATIONAL SURFACE MOUNT

STATIC WHITE PERFORMANCE - 3000K

LUMEN PACKAGE	WATTAGE	10° OPTIC SOFT FOCUS LENS		15° OPTIC SOFT FOCUS LENS		20° OPTIC SOFT FOCUS LENS		25° OPTIC SOFT FOCUS LENS		40° OPTIC SOFT FOCUS LENS		60° OPTIC SOFT FOCUS LENS		WALLWASH WALLWASH LENS		ADJ. WALLWASH WALLWASH LENS	
		DLVD	LPW	DLVD	LPW	DLVD	LPW	DLVD	LPW	DLVD	LPW	DLVD	LPW	DLVD	LPW	DLVD	LPW
80S11B	11	-	-	1169	106	1240	112	1243	112	1185	107	1156	105	979	89	1137	103
80S17B/C	17	819	48	1171	104	1943	114	1931	113	1858	109	1801	105	1509	88	1783	104
80S23B	23	-	-	2301	100	2559	111	2541	110	2409	104	2373	103	2039	88	2312	100
80S32B	32	-	-	2913	91	3372	105	3339	104	3170	99	3111	97	2641	82	3042	95
80S38B	38	-	-	3226	84	3932	103	3856	101	3680	96	3614	95	3072	80	3531	92
90S11B	11	-	-	1008	91	1060	96	1062	96	1013	92	988	89	837	76	972	88
90S17B/C	17	706	42	1527	89	1661	97	1650	97	1588	93	1539	90	1290	75	1524	89
90S23B	23	-	-	1984	86	2187	95	2172	94	2059	89	2028	88	1743	75	1976	85
90S32B	32	-	-	2511	78	2882	90	2854	89	2709	84	2659	83	2257	70	2600	81
90S38B	38	-	-	2781	73	3361	88	3296	86	3121	82	3089	81	2626	69	3018	79
97S11B	11	-	-	887	80	975	88	977	88	932	84	909	82	770	70	894	81
97S17B/C	17	609	36	1344	79	1528	89	1518	89	1461	85	1416	83	1187	69	1402	82
97S23B	23	-	-	1746	75	2012	87	1998	86	1894	82	1866	81	1604	69	1818	79
97S32B	32	-	-	2210	69	2651	82	2626	82	2492	77	2446	76	2076	64	2392	74
97S38B	38	-	-	2447	64	3092	81	3032	79	2893	76	2842	74	2416	63	2777	73
90W24BL (2700K-1800K)	24	-	-	-	-	1642	68	1626	67	1556	64	1491	62	1340	55	1570	65
90W24BD (3000K-1800K)	24	-	-	-	-	1777	74	1742	72	1685	70	1600	66	1422	59	1668	69
90T32BTR (4000K-1800K)	32	-	-	2251	70	2325	72	2319	72	2359	73	2352	73	2072	64	2520	78
90T32BTH (5000K-2700K)	32	-	-	2458	76	2580	80	2533	79	2394	74	2291	71	2085	65	2401	75

Part L 75+ LPW configurations comply with residential Part L  
95+ LPW configurations comply with commercial Part L

UNIFIED GLARE RATING

10° OPTIC NO LENS	15° OPTIC SOFT FOCUS LENS	20° OPTIC SOFT FOCUS LENS	25° OPTIC SOFT FOCUS LENS	40° OPTIC SOFT FOCUS LENS	60° OPTIC SOFT FOCUS LENS	WALLWASH WALLWASH LENS
<10	<13	<10	<10	<10	<13	>19

MEDIA LIGHT LOSS FACTOR

MEDIA	LIGHT LOSS FACTOR
No Lens	1.07
CGL	0.99
SFL	1.00
FGL	0.88
FSFL	0.91
FLSL	0.81
HCL	0.71
SFL+HCL	0.66

OUTPUT MULTIPLIER

CCT	CCT SCALE
2400K	0.76
2700K	0.957
3000K	1.000
3500K	1.019
4000K	1.030

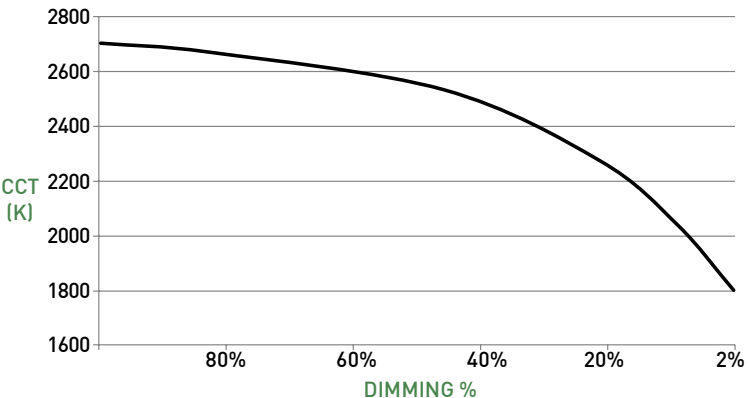
TUNABLE WHITE MULTIPLIER

CCT	5000K- 2700K	4000K- 1800K
5000K	1.16	-
4000K	1.08	1.14
3500K	1.04	1.07
3000K	1.00	1.00
2700K	0.96	0.92
2400K	-	0.84
1800K	-	0.69

WARM DIM PERFORMANCE - SOFT FOCUS LENS - 20° OPTIC

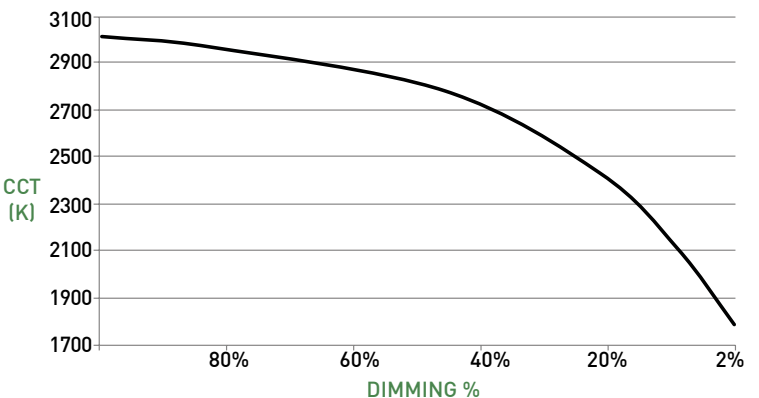
INCANDESCENT DIMMING PROFILE

90W24BL 2700K - 1800K	Full on 100%	Dimmed to 80%	Dimmed to 70%	Dimmed to 50%	Dimmed to 20%	Dimmed to 10%	Dimmed to 2%
CCT (K)	2700	2650	2620	2520	2180	1950	1800
Light Output (Lm)	1642	1314	1149	821	328	164	33
Power (W)	24	19	17	12	5	2.4	0.5
Efficacy (LPW)	68	68	68	68	68	68	68



HALOGEN DIMMING PROFILE

90W24BD 3000K - 1800K	Full on 100%	Dimmed to 80%	Dimmed to 70%	Dimmed to 50%	Dimmed to 20%	Dimmed to 10%	Dimmed to 2%
CCT (K)	3000	2950	2920	2775	2375	2000	1800
Light Output (Lm)	1777	1422	1244	889	355	178	36
Power (W)	24	19	17	12	5	2.4	0.5
Efficacy (LPW)	74	74	74	74	74	74	74



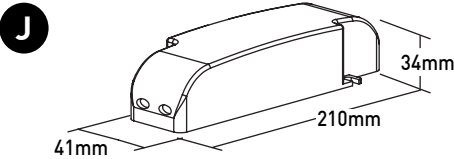
# CYLINDER 3 INTERNATIONAL SURFACE MOUNT

## CYLINDER ASSEMBLY

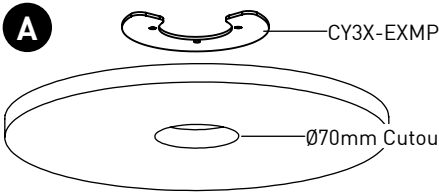
- A EXPORT MOUNTING PLATE**  
Export mounting plate (concealed) to be installed above ceiling substrate. Features minimalist 89mm diameter canopy.
- B ADJUSTABLE - STANDARD CANOPY**  
Die-cast canopy accommodates flat and sloped ceiling conditions. Conceals hidden mounting hardware. "AD" (90° tilt, 365° rotation) canopy features 2.15" (55mm) tall canopy. Available with integral or remote driver.
- C ADJUSTABLE - SHALLOW CANOPY**  
Die-cast canopy accommodates flat and slope ceiling conditions. Conceals hidden mounting hardware. "AS" (90° tilt, 365° rotation) canopy features 0.65" (17mm) tall canopy, reducing overall height. Requires remote power supply.
- D FIXED BODY**  
Body with integrated heat sink and LED. Conceals mounting hardware. Power supply may be integral or remote mount.
- E WALLWASH FIXED BODY**
- F1 OPTICS**  
Robust light engine with optimized optic pairing integrates Reflection, Refraction, and TIR offering 10°, 15°, 20°, 25°, 40° & 60° beams.
- F2 10° FIELD REDUCER**  
Included with 10° optic. Reduces field angle by 16%
- G MEDIA**  
Cylinder accepts 2 lenses; soft focus lens, no lens or wallwash lens standard. Sealed in place for Wet locations.
- H BAFFLE**  
Die-cast baffle minimizes aperture glare and conceals view into fixture.
- I WALL-MOUNT**  
Cylinder may be wall mounted using any mounting option.

## REMOTE POWER SUPPLY

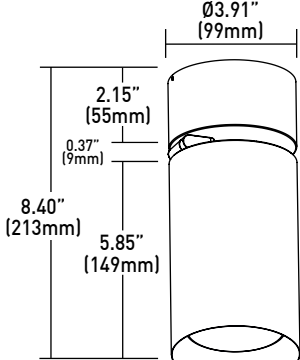
- J** Remote power supply provides additional driver options. See page 6 for maximum allowable wiring distance. Must be installed in an accessible location.



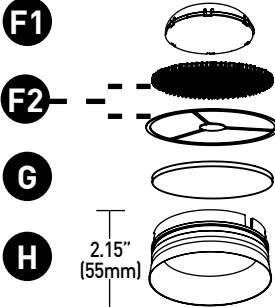
## DIMENSIONS / DRAWINGS



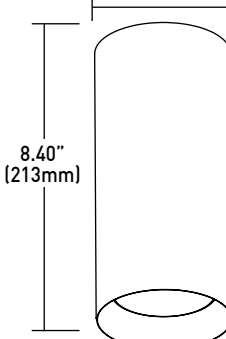
**B ADJUSTABLE BODY STANDARD CANOPY**



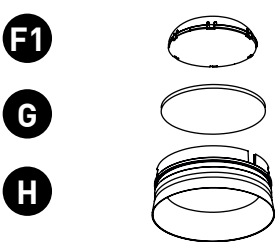
Cylinder weight  
3.45 lbs



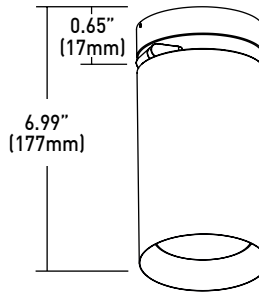
**D FIXED BODY**  
Ø3.91" (99mm)



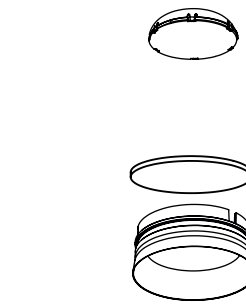
Cylinder weight  
3.45 lbs



**C ADJUSTABLE BODY SHALLOW CANOPY**



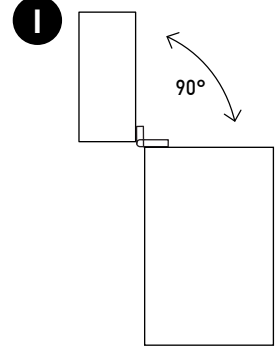
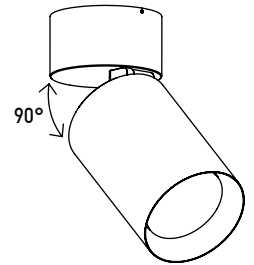
Cylinder weight  
3.25 lbs



**E WALLWASH FIXED BODY**



Cylinder weight  
3.45 lbs



# CYLINDER 3 INTERNATIONAL SURFACE MOUNT

## TECHNICAL

### CONSTRUCTION

**Cylinder:** Die-cast aluminum body with integrated heat sink; painted finishes are granulated powder coat. Alumina finishes are anodized aluminum.  
**Remote Power Supply:** 22 Gauge galvanized steel.

### STATIC WHITE LED

2-step MacAdam ellipse LED module available in 80+, 90+ and 97+ CRI configurations in color temperatures of 2700K, 3000K, 3500K and 4000K.  
3-step MacAdam ellipse LED module available in 90+ CRI configuration in color temperature of 2400K. Average rated lamp life of 50,000 hours. LED and driver assemblies are field-replaceable.

### WARM DIM LED

3-step MacAdam ellipse warm dim LED module available in 90+ CRI configuration. 3000K or 2700K at full brightness, warming to 1800K at full dim. Average rated lamp life of 50,000 hours. LED and driver assemblies are field-replaceable.

### TUNABLE WHITE LED

3-Step MacAdam ellipse tunable white LED module available in 90+ CRI configuration. Features tuning range of 2700K to 5000K and 1800K to 4000K. Average rated lamp life of 50,000 hours. Driver assemblies are field-replaceable.

### POWER SUPPLY PERFORMANCE AND DIMMING INFORMATION

Power Supply	PHASE			DALI		
	2IE	2EG	2EN	2ED	2LD	2DD
Minimum °C	-20 °C	-20 °C	-20 °C	-20 °C	-20 °C	-20 °C
Maximum °C	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C
Dimming %	2.0%	0.1%	0.1%	0.1%	0.1%	0.1%

Note: For EG and EN drivers consult chart on page 7 to confirm appropriate dimming curve for compatibility with selected control.

### MAXIMUM ALLOWABLE REMOTE DRIVER WIRING DISTANCES

DRIVER	WIRE AWG				
	12	14	16	18	20
2EG, 2EN, 2ED, 2LD, 2DD	-	-	118'	72'	46'

### WALLWASH SPACING AND TILT

Adjustable Wallwash Cylinder must be tilted to achieve wallwashing effect. Recommended adjustable spacing is 36" (914mm) on center with 36" (914mm) setback from wall plane with 15° tilt. Recommended fixed spacing is 36" (914mm) on center spacing with 48" (1219mm) setback from wall plane.

### LISTING

Cylinders and drivers CE Listed for Dry / Damp and IP65 Wet locations.  
Integral drivers ENEC and CB Listed.

### DECLARE

LBC Red List Approved.

### PART L

Part L compliant for all 75+ LPW residential and 95+ LPW commercial configurations.

### WARRANTY

Manufacturer's 1-year warranty guarantees product(s) listed to be free from defects in material and workmanship under normal use and service. 5-year warranty on LED and power supply to operate with 70% of the original flux and remain within a range of 3 duv. 10-year Lutron Advantage limited warranty available on Lutron equipped systems. Warranty period begins from the date of shipment by Seller. Consult [website](#) for full warranty terms and conditions.

### CHANGE LOG

- 2/15/2024: PART L COMPLIANCE ADDED
- 3/15/2024: 10 DEGREE FIELD REDUCER ADDED, 10 DEGREE PERFORMANCE DATA UPDATED

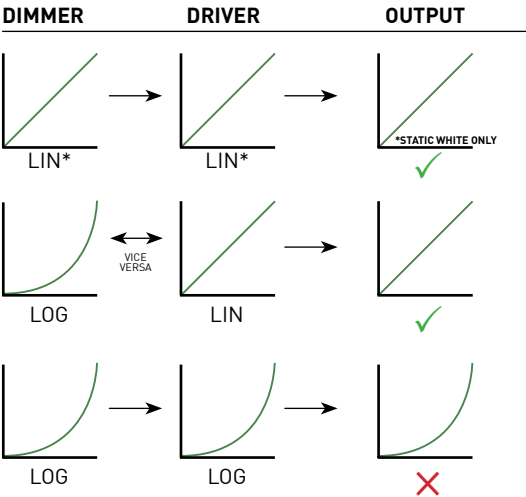
# CYLINDER 3 INTERNATIONAL SURFACE MOUNT

## DIMMING COMPATIBILITY

### eldoLED DRIVER COMPATIBILITY

Power supply <b>EG</b> Manufacturer	Family/Model #
Busch-Jaeger	2112U-101
Jung	240-10
Leviton Lighting Controls	IP710-DLX
Lightolier Controls	ZP600FAM120
Merten	5729
Pass & Seymour	CD4FB-W
The Watt Stopper	DCLV1
Synergy	ISD BC
Crestron®	GLX-DIMFLV8
Crestron®	GLXP-DIMFLV8
Crestron®	GLPAC-DIMFLV4-*
Crestron®	GLPAC-DIMFLV8-*
Crestron®	GLPP-DIMFLVEX-PM
Crestron®	GLPP-1DIMFLV2EX-PM
Crestron®	GLPP-1DIMFLV3EX-PM
Crestron®	DIN-A08
Crestron®	DIN-4DIMFLV4
Crestron®	CLS-EXP-DIMFLV
Crestron®	CLCI-1DIMFLV2EX
Power supply <b>EN</b> Manufacturer	Family/Model #
Lutron Electronics	Nova T® - NTFTV
Lutron Electronics	Diva® - DDTV
Lutron Electronics	Nova® - NFTV
Lutron Electronics	GrafixEye® GRX-TVI w GRX3503
Lutron Electronics	Energy Savr Node™ - QSN-4T16-S
Lutron Electronics	TVM2 Module
Sensor Switch	nIO EZ
ABB	SD/S 2.16.1

## ANALOG DRIVERS AND DIMMERS



LIN = LINEAR  
LOG = LOGARITHMIC  
\*LIN-TO-LIN NOT COMPATIBLE FOR WARM DIM