



ASCENT ARCHITECTURAL LIGHTING

PROJECT DATE

COMMENTS



IN STOCK



Pendant

Surface

ENERGY CHART*

SIZE	DELIVERED LUMENS	WATTAGE	EFFICACY lm/w
4"	1045	11	95
	1710	18	95
	2375	25	95
6"	2100	20	105
	3150	30	105
	4200	40	105
8"	2610	29	90
	3960	44	90
	5220	58	90

* Expanded Energy Chart on Page 2

CRISP ARCHITECTURAL CYLINDER LED

CRISP is an LED Architectural Cylinder available in 4", 6", and 8" diameters in black or white powder coat finish. Standard features include universal voltage, field selectable wattage, several options for reflectors, beam spreads, CCT, CRI, and drivers. CRISP can be surface or pendant mounted to recessed junction boxes with a flat plate or surface mounted junction boxes with a deep canopy that includes four conduit knock outs. CRISP can be suspended with field adjustable cable or rigid stem available in 2', 4', or 8' lengths.

- Commercial Office
- Classrooms
- Civic & Transportation

PHYSICAL

Material	Die Cast Aluminum
Mounting	Surface or Suspended
Lens	Acrylic
Reflector	Black, White, Copper, Chrome
Finish	Black, White

PERFORMANCE

Warranty	5 years
Certifications	UL
Rated Life	50,000 hours
Operating Temperature	-20°C to 40°C (-4°F to 104°F)
CCT	2700K, 3000K, 3500K, 4000K
CRI	80+, 90+
Beam Angle	15°, 24°, 36°, 60°

ELECTRICAL

Wattage	Field Selectable: (11W/18W/25W), (20W/30W/40W), (29W/44W/58W)
Voltage	120-277V
Power Factor	>0.9
Dimming	1-10V, 0-10V, Triac

SEE ORDERING LOGIC ON PAGE 2





ORDERING LOGIC

EX: CRISP-4-110-80-27-15-BK-WH-PR-2

FAMILY		SIZE		DIMMING		CRI		CCT		BEAM ANGLE	
CRISP											
4	4", Field Selectable Wattage (11W/18W/25W)	110	1-10V to 10%	80	80+	27	2700K	15	15°		
6	6", Field Selectable Wattage (20W/30W/40W)	010/TR	0-10V to 1% or Triac	90	90+	30	3000K	24	24°		
8	8", Field Selectable Wattage (29W/44W/58W)					35	3500K	36	36°		
						40	4000K	60	60°		

HOUSING FINISH		REFLECTOR FINISH		MOUNTING TYPE		CABLE OR STEM LENGTH <small>(PR + PS ONLY)</small>		OPTIONS	
BK	Black	WH	White	PR	Pendant With Flat Canopy <small>FOR USE WITH RECESSED J-BOX</small>	2C	2' Cable Mount	EM	8W Emergency Battery
WH	White	BK	Black	PS	Pendant With Deep Canopy <small>FOR USE WITH SURFACE MOUNTED J-BOX</small>	4C	4' Cable Mount		
		CP	Copper	SR	Surface <small>FOR USE WITH RECESSED J-BOX</small>	8C	8' Cable Mount		
		CH	Chrome	SS	Surface <small>FOR USE WITH SURFACE MOUNTED J-BOX</small>	2S	2' Rigid Stem		
						4S	4' Rigid Stem		
						8S	8' Rigid Stem		

ACCESSORIES ORDERING LOGIC (ORDER SEPARATELY)

EX: CRISP-12RBK

FAMILY		ACCESSORIES		ORDERING NOTES
CRISP				* 4" Cylinder Only
		12RBK*	12" Reflector Black Finish	
		12RWH*	12" Reflector White Finish	
		12RCC(xx)*	12" Reflector Custom Color <small>CONSULT FACTORY</small>	

EXPANDED ENERGY CHART

SIZE	WATTAGE	BEAM ANGLE	DELIVERED LUMENS BY CRI & CCT							
			CRI 80				CRI 90			
			2700K	3000K	3500K	4000K	2700K	3000K	3500K	4000K
4"	25	15°	2375.53	2449	2571.45	2693.9	2008.18	2081.65	2179.61	2277.57
		24°	2527.238	2605.4	2735.67	2865.94	2136.428	2214.59	2318.806	2423.022
		36°	2368.449	2441.7	2563.785	2685.87	2002.194	2075.445	2173.113	2270.781
		60°	2534.222	2612.6	2743.23	2873.86	2142.332	2220.71	2325.214	2429.718
6"	40	15°	4255.972	4387.6	4606.98	4826.36	3597.832	3729.46	3904.964	4080.468
		24°	4115.71	4243	4455.15	4667.3	3479.26	3606.55	3776.27	3945.99
		36°	4222.0123	4352.59	4570.22	4787.849	3569.124	3699.702	3873.805	4047.909
		60°	4212.419	4342.7	4559.835	4776.97	3561.014	3691.295	3865.003	4038.711
8"	58	15°	5292.223	5455.9	5728.695	6001.49	4473.838	4637.515	4855.751	5073.987
		24°	5360.22	5526	5802.3	6078.6	4531.32	4697.1	4918.14	5139.18
		36°	5573.814	5746.2	6033.51	6320.82	4711.884	4884.27	5114.118	5343.966
		60°	5461.1	5630	5911.5	6193	4616.6	4785.5	5010.7	5235.9



SPECIFICATIONS

OPTICS

Powered by high efficiency COB LED chip. 15° / 24° / 36° / 60° fixed beam spread options. Cylinder beam spreads are interchangeable which can be easily swapped out in the field without tools.

FINISH

Constructed of rigid die cast aluminum. Powder coated polyester paint that comes standard in white and black.

ELECTRICAL

LED Driver: Powered by Class 2 high efficiency LED driver, with a standard 1-10V dimming which continuously dims to 10% and works with many types of controls. Tested Dimmers: Lutron® Diva-Dvtv, Leviton® IP-710-DL. Another driver with 0-10V dimming to 1% and TRIAC dimming is available.

THD: <20%

Power Factor: >0.9

Input Voltage: Standard electronic drivers are cULus recognized and available for 120-277V AC.

LED SYSTEM

CRI: COB LED with 80+ is standard. 90 CRI is also available upon request by consulting the factory. They have been tested in accordance with IESNA LM-80 and the results have shown L80 lumen maintenance greater than 50,000 hours.

CCT: 2700K, 3000K, 3500K and 4000K with great color consistency.

Thermal Management: Aluminum housing acts as the heat sink to maximize life.

WARRANTY

5-year limited warranty

LISTINGS

- cULus listed for damp locations
- 5 years limited warranty

NOTES:

- Ambient temperatures at fixture location should not exceed 40°C during normal operation.

OPTIONAL FUNCTION

Optional high voltage 8W emergency LED driver can be provided. When AC power fails, it immediately switches to the emergency mode, operating lighting up to 120 minutes. When AC power is restored, it automatically returns to the charging mode which meets critical life-safety lighting requirements.

For more info or spec sheet, please contact sales.



Indicator



Canopy with Indicator

EMERGENCY LUMEN OUTPUT

MOUNTING	FIXTURE EFFICACY	OUTPUT POWER 8W
Surface	90 lm/w	720 Lumens
Suspended	80 lm/w	640 Lumens

MOUNTING

Cable Mount:

White/black cable is provided in length specified (2' nominal, 4' nominal or 8' nominal). Installers can cut the cable and power cord in the field to desired length.

Notes:

- For 4", the power cord and aircraft cable is combined in one pipe.
- For 6" and 8", the power cord and aircraft cable are separated.

Pendant Stem Mount:

Ø12/25" steel stem is provided in length specified. (2' nominal, 4' nominal, or 8' nominal) and is provided in white or black finish.

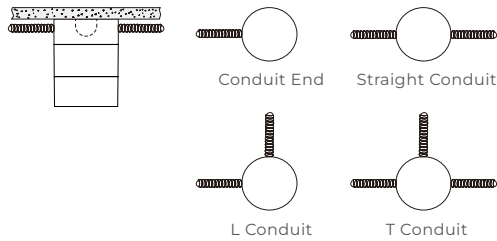
Recessed J-box:

If recessed J-box is 3" octagon, 4" octagon or 4" round, the cylinder can be mounted directly to recessed mounted junction box.

Surface Mount J-box:

If standard 4" octagonal J-box is surface mounted, a Ø5.97" round x 2.38" deep canopy with conduit cutout is provided for mounting. Conduit cutout canopy has 4 key slots, one in each side, and can be configured to accommodate any ceiling layout using 1/2" or 3/8" conduit. Conduit cutout canopy is provided in white or black powder coat finish.

Conduit Mounting Example:



PENDANT CANOPY MOUNTING OPTIONS

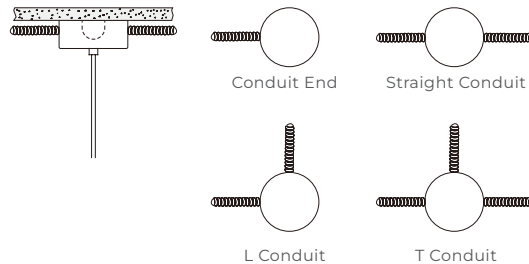
Flat Canopy For Recessed J-box:

If recessed J-box is 3" octagon, 4" octagon or 4" round, a 4.5" flat canopy is provided for mounting to recessed junction box in white or black powder coat finish.

Conduit Cutout Deep Canopy For Surface Mount J-box:

If standard 4" octagonal J-box is surface mounted, a Ø5.97" round x 2.38" deep canopy with conduit cutout is provided for mounting. Conduit cutout canopy has 4 key slots, one in each side, and can be configured to accommodate any ceiling layout using 1/2" or 3/8" conduit. Conduit cutout canopy is provided in white or black powder coat finish.

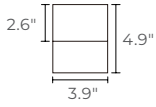
Conduit Mounting Example:



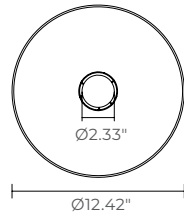
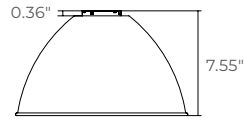


DIMENSIONS

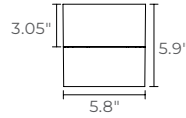
4" PRODUCT



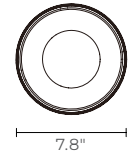
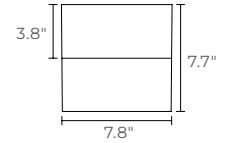
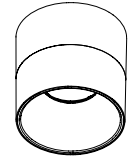
4" PRODUCT WITH 12" REFLECTOR



6" PRODUCT

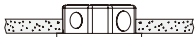


8" PRODUCT



FOR USE WITH RECESSED J-BOXES

Cable Mount



Stem Mount

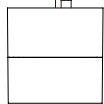


← 2' Nominal
4' Nominal
8' Nominal →

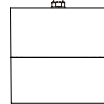
← 2' Nominal
4' Nominal
8' Nominal →



4"
Cable Mount



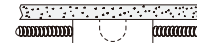
6"/8"
Cable Mount



4"/6"/8"
Rigid Stem

FOR USE WITH SURFACE MOUNTED J-BOXES

Cable Mount



Stem Mount

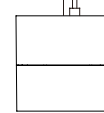


← 2' Nominal
4' Nominal
8' Nominal →

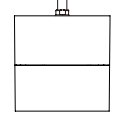
← 2' Nominal
4' Nominal
8' Nominal →



4"
Cable Mount
Conduit Cutout



6"/8"
Cable Mount
Conduit Cutout



4"/6"/8"
Rigid Stem
Conduit Cutout





MOUNTING OPTIONS

SURFACE MOUNTING

Recessed J-Box



4" / 6" / 8"

Surface Mounted J-Box



4"

6"

8"

SUSPENDED MOUNTING

Recessed J-Box



4"

Cable Mount

6"/8"

Cable Mount

4"/6"/8"

Rigid Stem

Surface Mounted J-Box



4"

Cable Mount
Conduit Cutout

6"/8"

Cable Mount
Conduit Cutout

4"/6"/8"

Rigid Stem
Conduit Cutout

FINISH OPTIONS

White Housing Finish



White
Reflector



Copper
Reflector



Chrome
Reflector



Black
Reflector



12" White
Reflector

Black Housing Finish



White
Reflector



Copper
Reflector



Chrome
Reflector



Black
Reflector



12" Black
Reflector





1-10V DIMMING DRIVER SPECIFICATIONS

INPUT	
Efficiency	86%@220V _{AC} full load
Voltage	120-277V _{AC} (standard)
	120-347V _{AC} (optional)
Frequency Range (Hz)	50/60Hz
Power Factor	≥ 0.9@120V _{AC} /60Hz,≥10% full load
	≥ 0.9@277V _{AC} /60Hz,≥50% full load
	≥ 0.9@347V _{AC} /60Hz,≥70% full load
THD (Full Load)	<10%@120V _{AC} full load
AC Current (max)	0.25A@120V _{AC} full load
Standby Power	<1W
Inrush Current (Cold Start, Max)	120V 20A peak,500us duration(10% Ipeak)
	277V 25A peak,600us duration(10% Ipeak)
	347V 35A peak,800us duration(10% Ipeak)
Leakage Current (Max)	<0.15mA@347V

OUTPUT	
Voltage (VDC)	30-42V _{DC}
Current (mA)	600mA
Power (W)	25W
Current Ripple	<5%
Channel	1 output channel
Linear Regulation	±5%
No-load Output Voltage	<50V
Start Time	<0.5S@347V <1S@120V
Auxiliary Voltage	12V/100mA

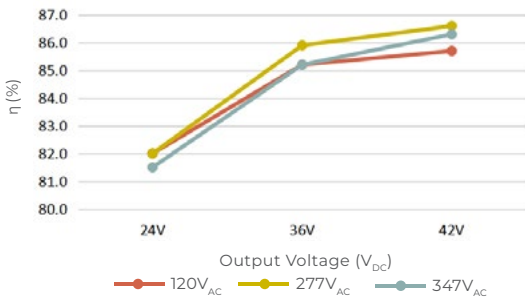
FUNCTION	
Dimming Method	0-10V 0.5V OFF/0.7V ON
Dimming Current	<1mA@10V <2mA@0.7V
Dimming Range	10%-100% (standard)
Adjust Power	Can be dialed externally

PROTECTION	
Over Temperature	When temperature is too high, shut down the output, recovers automatically
Over Load	Hiccup, when the output power exceeds, then, recovers automatically after fault removed
Short Circuit	Close output recovers automatically after fault removed

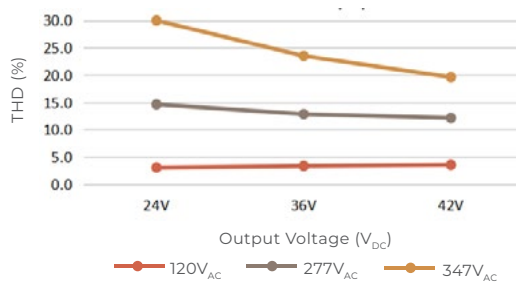
ELECTRICAL CHARACTERISTICS

Measured at Ta 25°C, output current 600mA

Efficiency VS Output Voltage Curve



Total Harmonic Distortion VS Output Voltage Curve



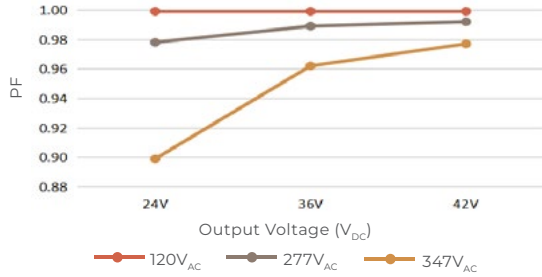


1-10V DIMMING DRIVER SPECIFICATIONS (CONTINUED)

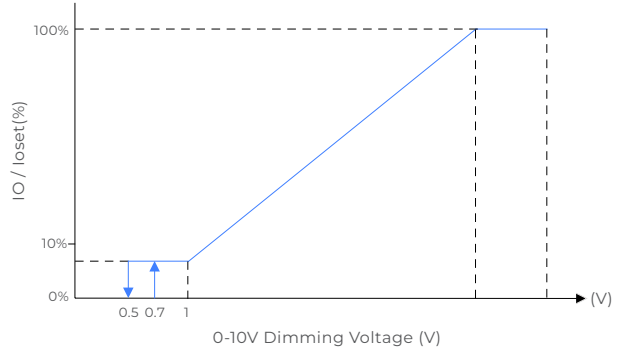
ELECTRICAL CHARACTERISTICS (CONTINUED)

Measured at Ta 25°C, output current 600mA

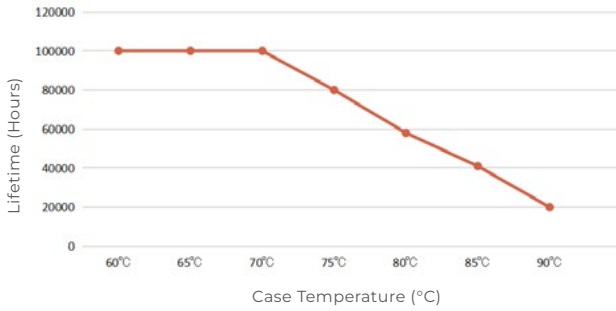
Power Factor VS Output Voltage Curve



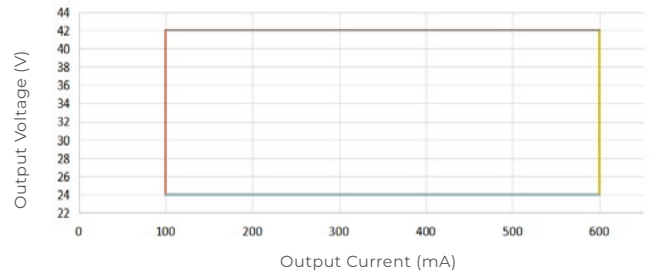
Output Current VS Dimming Voltage (Typical)



Lifetime VS Case Temperature



Output Voltage VS Output Current



Note: within the output voltage range, the maximum output power does not exceed 25W



0-10V/TRIAC DIMMING DRIVER SPECIFICATIONS
INPUT

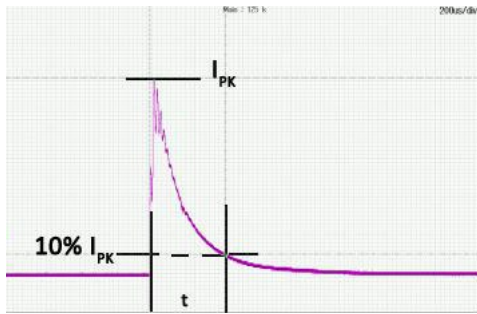
Input Voltage	108-305 V _{AC}
Rated Input Voltage	120-277 V _{AC}
	47 Hz (min)
Input Frequency	50/60 Hz (typ)
	63 Hz (max)
Input Current (Max)	0.7A (Full Load, V _{IN} = 120V _{AC})
Inrush Current (Cold Start, Max)	25A (V _{IN} = 277V _{AC})
Leakage Current	0.75 (V _{IN} = 277V _{AC} 60Hz)

Number of Drivers per MCB(Circuit Breaker)

MCB Type	13	15	17	17	20	22	21	24	28	26	30	35
120V _{AC}	30	46	53	39	60	69	48	74	85	60	93	106
277V _{AC}	13	22	44	120	28	57	21	35	71	26	44	88

Number of Drivers per MCB(Circuit Breaker)

MCB Type	13	15	17	17	20	22	21	24	28	26	30	35
120V _{AC}	15	18	20	20	23	26	24	28	33	31	36	41
277V _{AC}	10	17	35	45	23	46	17	28	57	21	35	71



INPUT VOLTAGE	INRUSH CURRENT	t(us)10%-10%
120V _{AC}	10.2A	200
277V _{AC}	22.2A	220
347V _{AC}	NA	NA

PROTECTION

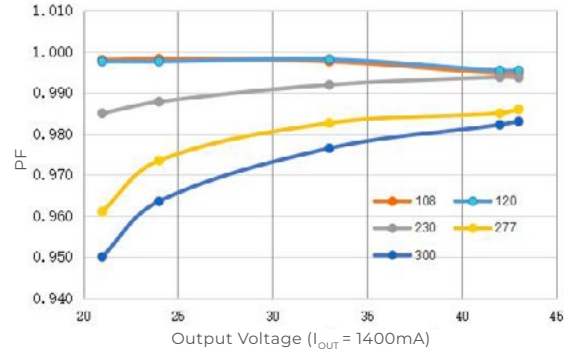
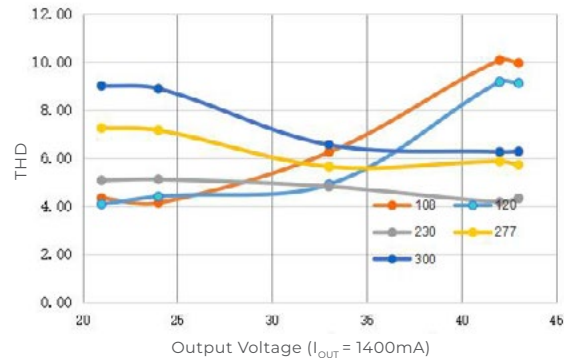
Over Voltage Protection	It will recover automatically after fault conditions is removed.
Short Circuit Protection	It will recover automatically after fault conditions is removed.

SAFETY COMPLIANCE

CUL/UL	UL8750, CAN/CSA-C22.2 No. 250.13
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GENERAL CHARACTERISTICS

Power Factor	≥0.95 (50-100% Load, V _{IN} = 120V _{AC})
	≥0.9 (50-100% Load, V _{IN} = 120V _{AC})
Total Harmonic Distortion (max %)	20 (50-100% Load, V _{IN} = 120V _{AC})
Turn On Delay Time	0.5 s (Cold Start, No dimming)

Power Factor VS Output Voltage Curve

Total Harmonic Distortion VS Output Voltage Curve

OUTPUT

Output Current Tolerance	<5%
Output Voltage	20-42V _{DC}
Output Power	60W
Line Regulation	<3%
Load Regulation	<5% (V _{OUT} from MIN. to MAX.)
Ripple Current	<10% (Full Load, (I _{omax} -I _{omin})/(I _{omax} +I _{omin}))
Output Current Overshoot	<10% (Turning Power ON)





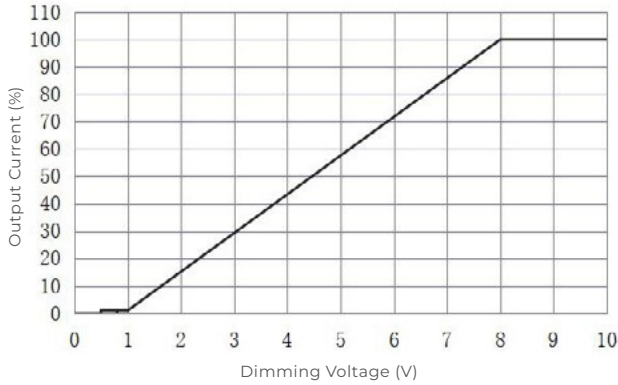
0-10V/TRIAC DIMMING DRIVER SPECIFICATIONS (CONTINUED)

0-10V OR RESISTOR DIMMING

The 0-10V or resistor dimming can be used to dim the output Current via a standard commercial wall dimmer (0-10VDC) or an external control voltage source (0-10VDC) or external resistor.

Dimming Curve	Linear. See Dimming Curve.
Absolute Maximum Voltage on 0-10V Pin	0-10V
Source Current on 0-10V Dimming Pin	200-500uA
Light On (V_{DIM-on})	0.8V
Light Off ($V_{DIM-off}$)	0.5V
Dimming Voltage for Full Bright	8V
Output Current Range	1-100%
External Resistor Value at Full Bright	45 k Ω
Leakage Voltage	5V _{AC}
Standby Power	0.5W

Dimming Voltage VS Output Current Curve



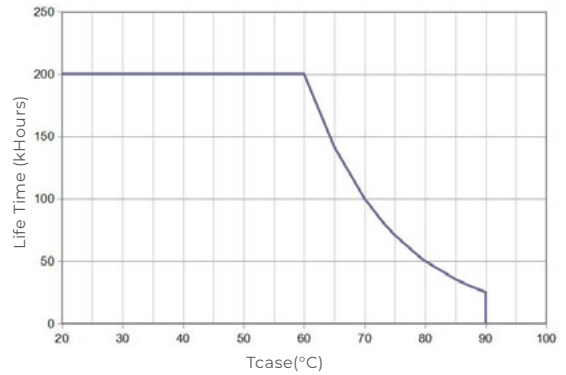
ENVIRONMENT

Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Ambient Operating Temperature	-25°C to 50°C (-13°F to 122°F)
Max. Case Temperature	90°C (194°F) (Hot spot on case)
Operating Relative Humidity	10-90% (Non-Condensing)
Acoustic Noise	24 dBA (Measured from 1 m w/o dimmer.)
Cooling	Convection Cooling
IP Rating	Dry and damp UL approved

OTHER SPECIFICATIONS

Lifetime	-40°F to 185°F (-40°C to 85°C)
MTBF	-13°F to 122°F (-25°C to 50°C)
Net Weight	194°F (90°C) (Hot spot on case)
Warranty	10-90% (Non-Condensing)
Flicker	24 dBA (Measured from 1 m w/o dimmer.)

Life Time Curve



SAFETY COMPLIANCE

EMC Requirements	Standard	Conditions
EMI Emissions	FCC Title 47 Part 15B	Class B at 120VAC, Class A at 277VAC
Voltage Fluctuations and Flicker	IEC61000-3-3	
Immunity Compliance	IEC 61000-4-2	±8kV air Discharge, ±6kV Contact Discharge
	IEC 61000-4-5 or ANSI/IEEE C62.41-2002	± 2kV Common and Differential Mode, test at 2 Ω , 5 strikes/minute interval (40 total strikes)
	ANSI/IEEE C62.41.1-2002	2.5kV Ring Wave, test at 30 Ω 7 Strikes/1 minute interval, Common and Differential mode, 56 total strikes
	IEC 61000-4-11	>95% dip, .5 period; 30% dip, 25 periods; 95% reduction, 250 periods
	IEC 61000-4-4	± 2kV Direct couple to Line input, 5kHz repetition rate, 15mS duration, 300mS period. 7 coupling paths, 1 minute per path (14 total combinations)

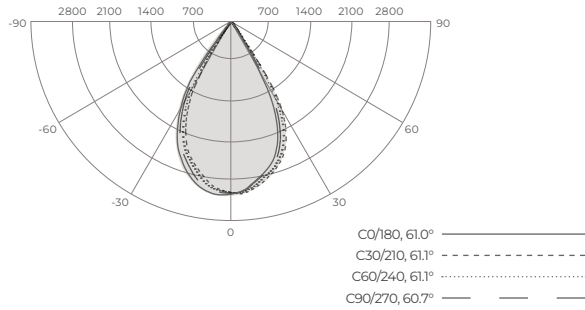
Note: Unless otherwise specified, all the above parameters are measured at ambient temperature of 25°C and rated voltage.





PHOTOMETRICS - 4" - 3000K - 60°

AVERAGE BEAM ANGLE (50%): 61.0°



ZONAL FLUX DIAGRAM

T	C0	C45	C90	C135	C180
10	2751	2786	2868	2917	2931
20	2335	2466	2558	2593	2538
30	1094	1535	1818	1905	1800
40	155.1	194.4	245.3	438.2	400.3
50	62.68	63.03	65.58	79.00	102.6
60	44.26	44.48	45.54	54.19	62.64
70	23.80	23.01	22.92	28.39	34.03
80	2.913	5.007	6.675	7.312	11.58
90	0.1544	0.1118	0.3414	0.4778	0.2661
100	0.0980	0.1167	0.1027	0.1260	0.1499
110	0.1725	0.2939	0.8678	0.2707	0.6863
120	0.3081	0.3082	0.3596	0.3502	0.7190
130	0.8022	0.6450	0.4290	0.4484	0.8034
140	2.066	1.785	1.408	1.243	1.589
150	3.714	3.274	2.851	2.718	3.120
160	5.316	4.917	4.461	4.184	4.698
170	6.381	6.205	6.044	5.930	6.233
180	6.788	6.806	6.652	6.657	6.797
DEG	LUMINOUS INTENSITY: cd				

ZONAL LUMEN SUMMARY

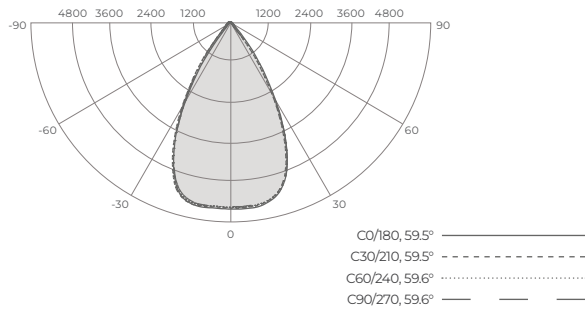
T	Φ TOTAL
0-10	2079
10-20	2892
20-30	8458
30-40	11997
40-50	13945
50-60	15263
60-70	16203
70-80	16813
80-90	17695
90-100	5033
100-110	5033
110-120	5033
120-130	5034
130-140	5036
140-150	5039
150-160	5042
160-170	5045
170-180	5046
	UNIT: lm

Luminance cd/(m2)

G(DEG)	C0/180	C90/270
85	2079	6732
80	2892	6628
75	8458	9206
70	11997	11556
65	13945	13764
60	15263	15703
55	16203	17152
50	16813	17592
45	17695	27503

PHOTOMETRICS - 6" - 3000K - 60°

AVERAGE BEAM ANGLE (50%): 59.6°



ZONAL FLUX DIAGRAM

T	C0	C45	C90	C135	C180
10	5529	5511	5486	5486	5576
20	4834	4887	4923	4940	4963
30	2643	2758	2803	2894	2818
40	433.5	487.4	508.0	551.8	472.2
50	100.6	104.4	102.4	105.5	99.85
60	72.33	72.16	70.84	70.56	71.23
70	44.46	45.15	44.15	44.05	43.76
80	18.19	18.90	17.92	18.39	18.56
90	0.1782	0.1447	0.1496	0.1447	0.1447
100	0.1727	0.1868	0.1494	0.1821	0.1729
110	0.2565	0.2615	0.2147	0.2568	0.2569
120	0.3688	0.3923	0.3823	0.3596	0.3737
130	1.082	1.047	0.9929	0.9770	1.080
140	3.232	3.112	3.031	2.920	3.318
150	6.392	6.202	6.089	5.889	6.530
160	9.529	9.302	9.245	9.017	9.601
170	12.21	12.07	11.91	11.77	12.11
180	13.29	13.37	13.15	13.16	13.31
DEG	LUMINOUS INTENSITY: cd				

ZONAL LUMEN SUMMARY

T	Φ TOTAL
0-10	526.3
10-20	2017
20-30	3780
30-40	4714
40-50	4863
50-60	4936
60-70	4993
70-80	5025
80-90	5033
90-100	5033
100-110	5033
110-120	5033
120-130	5034
130-140	5036
140-150	5039
150-160	5042
160-170	5045
170-180	5046
	UNIT: lm

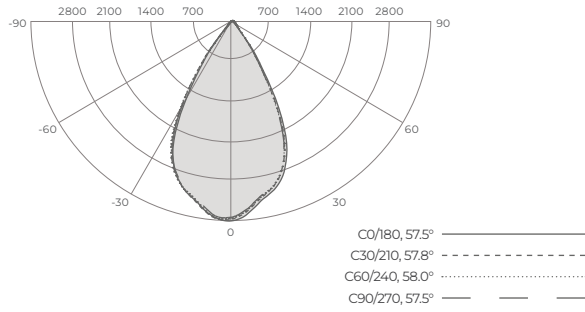
Luminance cd/(m2)

G(DEG)	C0/180	C90/270
85	5141	5059
80	6800	6703
75	7678	7640
70	8441	8382
65	9032	8906
60	9393	9200
55	9336	9072
50	10163	10349
45	14737	15549



PHOTOMETRICS - 8" - 3000K - 60°

AVERAGE BEAM ANGLE (50%): 57.7°



Luminance cd/(m2)

G(DEG)	C0/180	C90/270
85	2815	2099
80	3569	3101
75	4060	3666
70	4458	4108
65	4761	4451
60	4970	4692
55	5058	4836
50	5932	5288
45	9205	8235

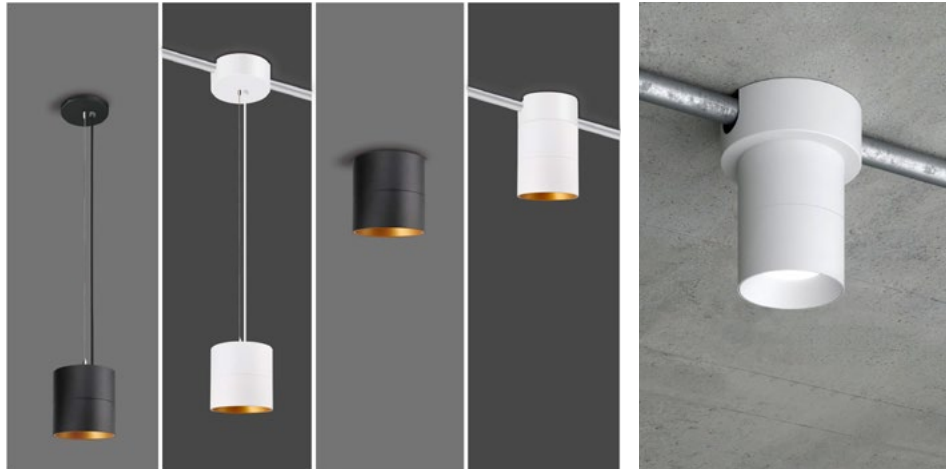
ZONAL FLUX DIAGRAM

T	C0	C45	C90	C135	C180
10	6752	6641	6582	6635	6997
20	5798	5610	5550	5774	6119
30	2943	2631	2544	3088	3598
40	323.2	281.4	268.1	369.4	569.4
50	101.4	92.02	90.41	103.3	137.4
60	66.11	63.45	62.41	64.37	68.46
70	40.56	38.05	37.37	39.94	43.13
80	16.48	14.58	14.33	16.84	19.29
90	0.1635	0.1495	0.1728	0.1494	0.6340
100	0.1633	0.2008	0.1867	0.1961	0.1821
110	0.2426	0.2895	0.2613	0.2755	0.2615
120	0.4150	0.4624	0.4521	0.4110	0.3877
130	1.310	1.501	1.445	1.183	1.038
140	4.020	4.396	4.323	3.738	3.636
150	7.830	3.274	2.851	2.718	3.120
160	11.69	12.09	12.00	11.29	11.30
170	15.06	15.17	14.99	14.64	14.78
180	16.06	16.06	15.84	15.86	16.12
DEG	LUMINOUS INTENSITY: cd				

ZONAL LUMEN SUMMARY

T	Φ TOTAL
0-10	670.6
10-20	2462
20-30	4629
30-40	5655
40-50	5820
50-60	5892
60-70	5945
70-80	5976
80-90	5984
90-100	5985
100-110	5985
110-120	5985
120-130	5986
130-140	5988
140-150	5991
150-160	5995
160-170	5999
170-180	6001
	UNIT: lm

ADDITIONAL IMAGERY



ADDITIONAL IMAGERY (CONTINUED)

