



UL LLC
1075 W Lambert Rd Suite B
Brea, CA 92821

Photometric Test Report

Relevant Standards
IES LM-79-2008
ANSI C82.77-2002

Prepared For
Auroralight Inc
2742 Loker Ave. West
Carlsbad, CA 92010

Catalog Number
LBD250-C5-12-30-25 (3000K)
Order Number
11263738
Test Number
1254213

Test Date

2016-07-27

Prepared By

Tony Rubio, Technician

Approved By

Eric Gaudreau, Senior Engineering Associate

The results contained in this report pertain only to the tested sample.
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Luminaire Description: Conical 5" copper shade with graduated louvers and cylindrical 25" copper stem with brass base
Lamp: Six (6) Cree XPL-L 3000K LEDs
Mounting: Path/Area
Ballast/Driver: L.T.F. DL112W480C24LP6?-0000

Luminaire



Luminaire Characteristics

Luminous Diameter: 5.25 in.
Luminous Height: 2.500 in.

Summary of Results

Roadway Classification: Type V, Very Short
Cutoff Classification: Semicutoff
BUG Rating: B0 U1 G0

Test Conditions

Test Temperature: 24.7 °C
Voltage: 12.04 VAC
Current: 1.878 A
Power: 13.27 W
Power Factor: 0.586
Frequency: 60 Hz
Current THD: 78.5 %

Tested in 30 planes left side, 30 planes right side, left and right averaged
Vertical test increments are 2.5 degrees
Test distance exceeds five times the greatest luminous opening of luminaire

Laboratory results may not be representative of field performance
Ballast factors have not been applied



Distribution - Goniophotometer

Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.7 °C	12.04 VAC	1.878 A	13.27 W	0.586	60 Hz	78.5 %

Summary of Results

Spacing Criteria

0-180: 3.77
90-270: 3.77

Total Lumen Output:

171.4 Lumens

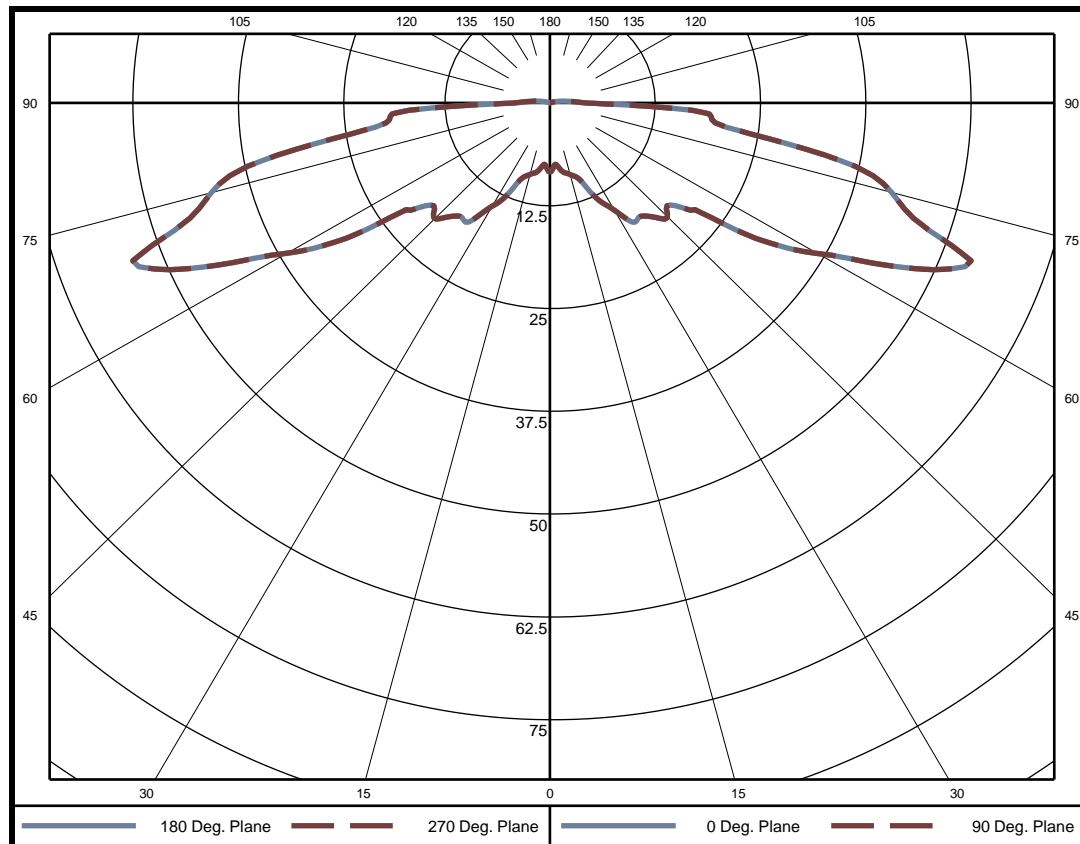
Luminaire Efficacy:

12.9 lm/w

Maximum Candela:

54 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	0.19	0.1%	60-65	20.32	11.9%	120-125	0	0.0%
5-10	0.57	0.3%	65-70	26.09	15.2%	125-130	0	0.0%
10-15	1.04	0.6%	70-75	23.65	13.8%	130-135	0	0.0%
15-20	1.54	0.9%	75-80	19.90	11.6%	135-140	0	0.0%
20-25	2.31	1.3%	80-85	11.78	6.9%	140-145	0	0.0%
25-30	3.49	2.0%	85-90	7.24	4.2%	145-150	0	0.0%
30-35	4.86	2.8%	90-95	1.74	1.0%	150-155	0	0.0%
35-40	5.88	3.4%	95-100	0.96	0.6%	155-160	0	0.0%
40-45	7.02	4.1%	100-105	0.49	0.3%	160-165	0	0.0%
45-50	7.72	4.5%	105-110	0.17	0.1%	165-170	0	0.0%
50-55	9.58	5.6%	110-115	0.01	0.0%	170-175	0	0.0%
55-60	14.90	8.7%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	20	11.6%
0-60	59	34.5%
0-90	168	98.1%
90-180	3	2.0%



Candela Tabulation

Horizontal Angle (Degrees)

Vertical Angle (Degrees)

	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
0	8.32	8.32	8.32	8.32	8.32	8.32	8.32	8.32	8.32	8.32	8.32	8.32	8.32	8.32	8.32	8.32
5	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48
10	8.44	8.44	8.44	8.44	8.44	8.44	8.44	8.44	8.44	8.44	8.44	8.44	8.44	8.44	8.44	8.44
15	8.97	8.97	8.97	8.97	8.97	8.97	8.97	8.97	8.97	8.97	8.97	8.97	8.97	8.97	8.97	8.97
20	9.73	9.73	9.73	9.73	9.73	9.73	9.73	9.73	9.73	9.73	9.73	9.73	9.73	9.73	9.73	9.73
25	12.53	12.53	12.53	12.53	12.53	12.53	12.53	12.53	12.53	12.53	12.53	12.53	12.53	12.53	12.53	12.53
30	14.90	14.90	14.90	14.90	14.90	14.90	14.90	14.90	14.90	14.90	14.90	14.90	14.90	14.90	14.90	14.90
35	17.69	17.69	17.69	17.69	17.69	17.69	17.69	17.69	17.69	17.69	17.69	17.69	17.69	17.69	17.69	17.69
40	17.97	17.97	17.97	17.97	17.97	17.97	17.97	17.97	17.97	17.97	17.97	17.97	17.97	17.97	17.97	17.97
45	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70	19.70
50	19.44	19.44	19.44	19.44	19.44	19.44	19.44	19.44	19.44	19.44	19.44	19.44	19.44	19.44	19.44	19.44
55	26.86	26.86	26.86	26.86	26.86	26.86	26.86	26.86	26.86	26.86	26.86	26.86	26.86	26.86	26.86	26.86
60	36.61	36.61	36.61	36.61	36.61	36.61	36.61	36.61	36.61	36.61	36.61	36.61	36.61	36.61	36.61	36.61
65	47.66	47.66	47.66	47.66	47.66	47.66	47.66	47.66	47.66	47.66	47.66	47.66	47.66	47.66	47.66	47.66
70	50.82	50.82	50.82	50.82	50.82	50.82	50.82	50.82	50.82	50.82	50.82	50.82	50.82	50.82	50.82	50.82
75	41.98	41.98	41.98	41.98	41.98	41.98	41.98	41.98	41.98	41.98	41.98	41.98	41.98	41.98	41.98	41.98
80	28.68	28.68	28.68	28.68	28.68	28.68	28.68	28.68	28.68	28.68	28.68	28.68	28.68	28.68	28.68	28.68
85	19.23	19.23	19.23	19.23	19.23	19.23	19.23	19.23	19.23	19.23	19.23	19.23	19.23	19.23	19.23	19.23
90	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.28
95	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30
100	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29
105	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
110	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)

	0	45	90
0	596	596	596
45	1866	1866	1866
55	2653	2653	2653
65	5036	5036	5036
75	4862	4862	4862
85	2500	2500	2500



Utilization of Lumens - Zonal Cavity Method

Effective Floor Cavity Reflectance 20%																		
Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																	
0	203	203	203	203	198	198	198	198	189	189	189	180	180	180	172	172	172	168
1	171	157	144	132	165	152	140	129	143	134	125	136	127	120	128	122	115	111
2	147	124	106	90	141	120	103	89	113	98	86	106	94	83	100	90	80	75
3	128	102	81	65	123	98	79	64	92	75	62	86	72	60	81	68	58	53
4	114	85	64	48	109	83	63	48	77	60	46	72	57	45	67	55	44	39
5	103	73	53	38	98	71	52	37	66	49	36	62	47	35	58	45	34	29
6	94	64	44	30	89	62	43	30	58	42	29	55	40	28	51	38	28	23
7	86	57	38	25	82	55	37	25	52	36	24	49	34	24	46	33	23	19
8	79	51	33	21	76	50	33	21	47	31	20	44	30	20	42	29	19	15
9	74	46	29	18	71	45	29	18	43	28	18	40	27	17	38	26	17	13
10	69	42	26	16	66	41	26	16	39	25	15	37	24	15	35	23	15	11

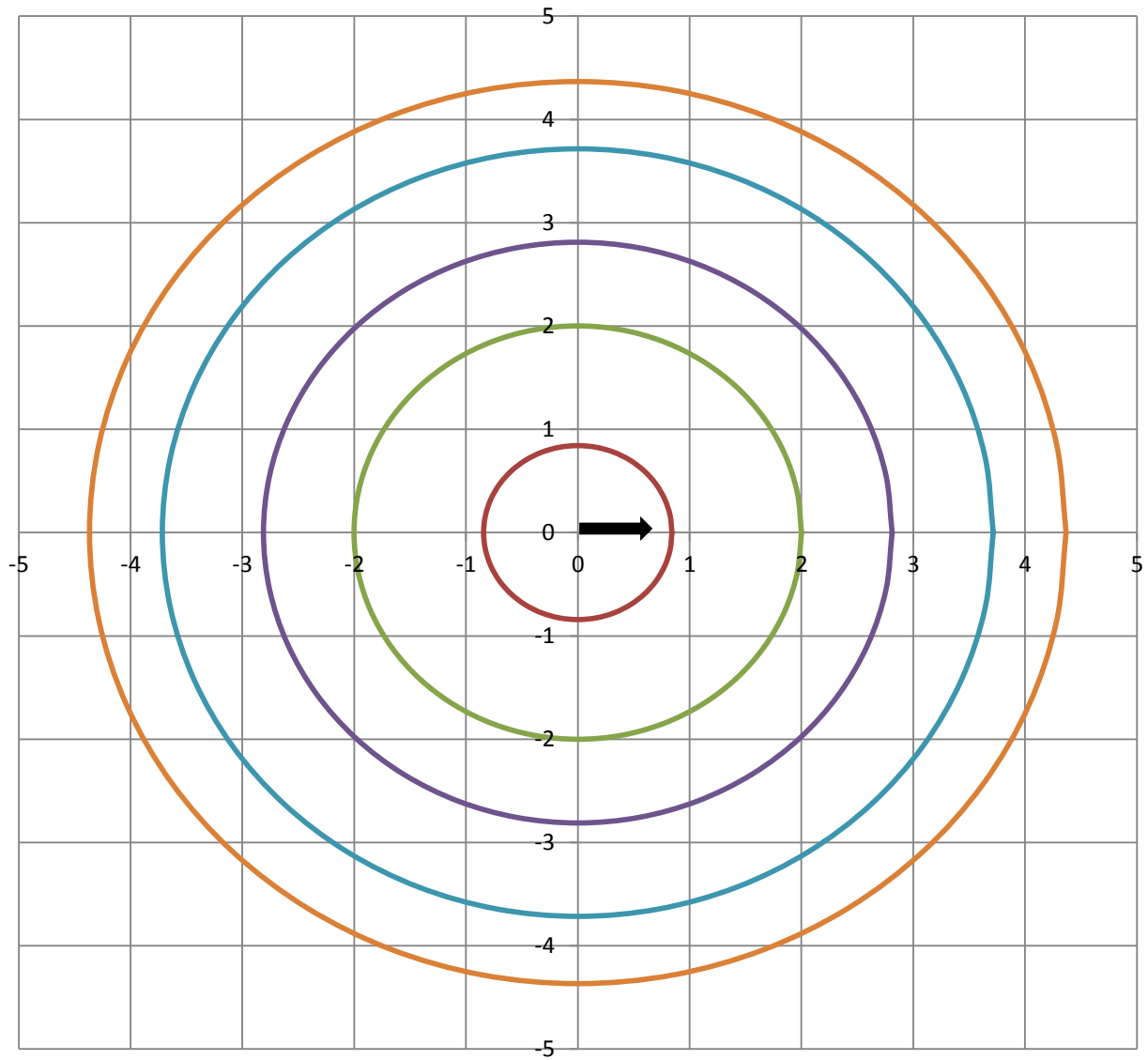
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	8.32 Candela
Central Cone Intensity:	8 Candela
Beam Flux:	168.2 Lumens
Beam Angle (0-180):	180.4 Degrees
Beam Angle (90-270):	180.4 Degrees
Field Angle (0-180):	206.2 Degrees
Field Angle (90-270):	206.2 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		0.520	15.1
6.00		0.231	22.6
8.00		0.130	30.2
10.0		0.0832	37.7
12.0		0.0578	45.3
14.0		0.0425	52.8
16.0		0.0325	60.3



ISOFootcandle Plot

Mounting Height - 2 Feet

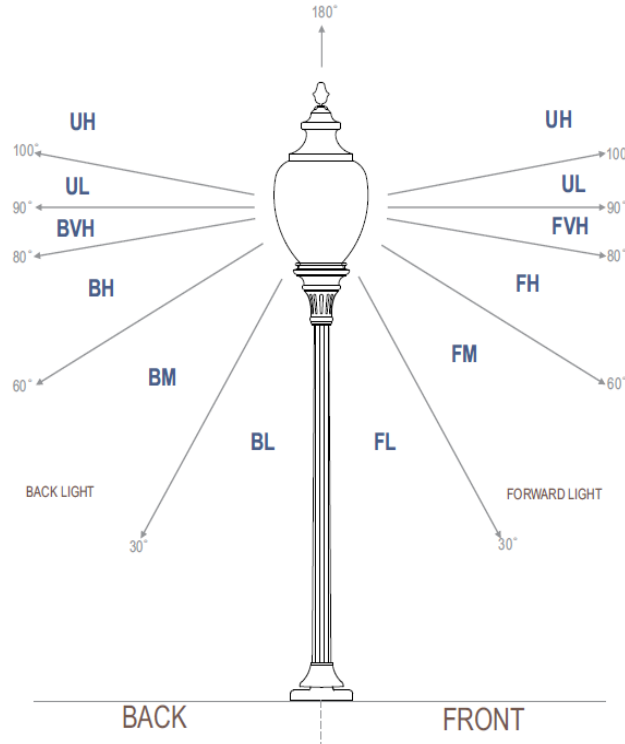


Grid Lines in Units of Mounting Height





IES "BUG" Rating
(Back Light, Uplight, Glare)
Per IES TM-15-11



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	4.6	2.7%
FM	(30-60)	25.0	14.6%
FH	(60-80)	44.8	26.1%
FVH	(80-90)	9.6	5.6%
BL	(0-30)	4.6	2.7%
BM	(30-60)	25.0	14.6%
BH	(60-80)	44.8	26.1%
BVH	(80-90)	9.6	5.6%
UL	(90-100)	2.7	1.6%
UH	(100-180)	0.7	0.4%
Total		171.5	100.0%
BUG Rating	B0 U1 G0		