



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-C8-NL-12-30-25 (NO LOUVERS, 3000K)
Order Number
11263738
Test Number
1254204

Test Date

2016-07-17

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 8" copper shade with no 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: 8.00 in.
Luminous Height: 1.500 in.

Summary of Results

Roadway Classification: Type V, Very Short
Cutoff Classification: Noncutoff
BUG Rating: B0 U1 G1

Test Conditions

Test Temperature: 24.5 °C
Voltage: 12.05 VAC
Current: 1.648 A
Power: 11.64 W
Power Factor: 0.586
Frequency: 60 Hz
Current THD: 107 %

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
24.5 °C	12.05 VAC	1.648 A	11.64 W	0.586	60 Hz	107 %

Summary of Results

Spacing Criteria

0-180: 1.87
90-270: 1.87

Total Lumen Output:

460.4 Lumens

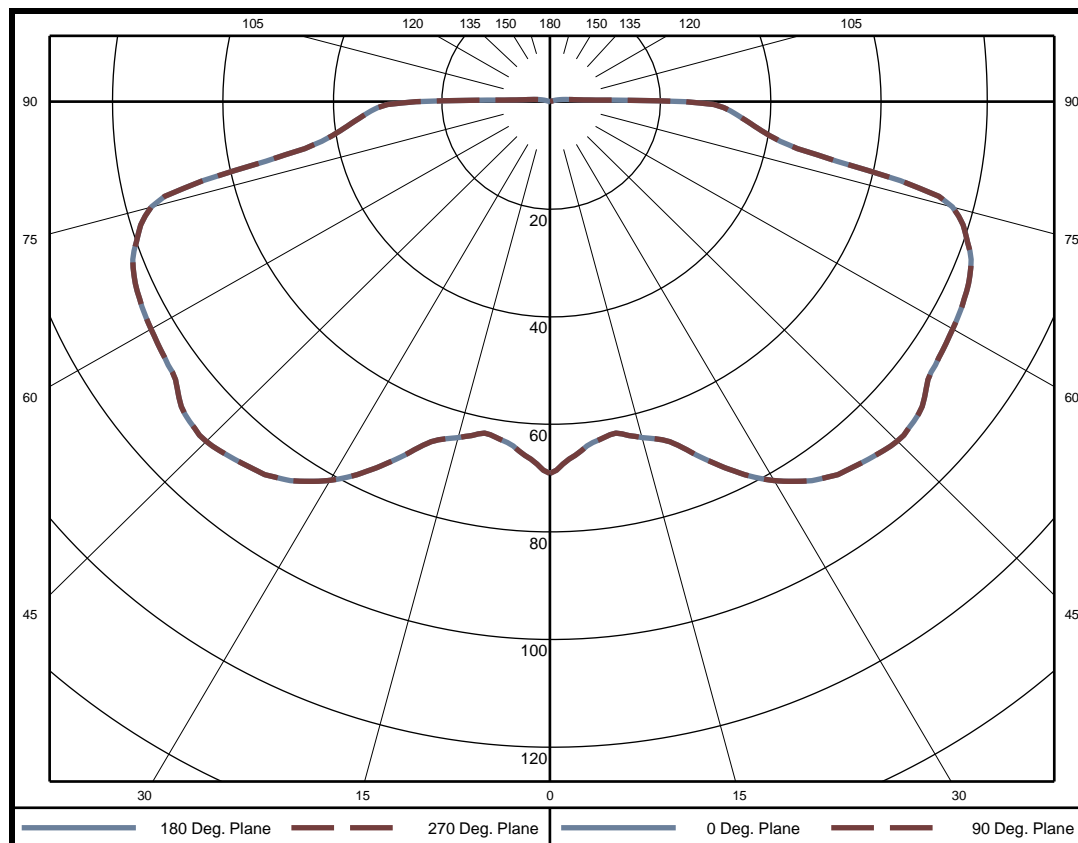
Luminaire Efficacy:

39.6 lm/w

Maximum Candela:

89 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	1.59	0.3%	60-65	40.83	8.9%	120-125	0	0.0%
5-10	4.56	1.0%	65-70	41.77	9.1%	125-130	0	0.0%
10-15	7.54	1.6%	70-75	41.12	8.9%	130-135	0	0.0%
15-20	10.89	2.4%	75-80	31.64	6.9%	135-140	0	0.0%
20-25	15.03	3.3%	80-85	20.81	4.5%	140-145	0	0.0%
25-30	19.86	4.3%	85-90	17.28	3.8%	145-150	0	0.0%
30-35	24.65	5.4%	90-95	5.34	1.2%	150-155	0	0.0%
35-40	28.99	6.3%	95-100	1.75	0.4%	155-160	0	0.0%
40-45	32.79	7.1%	100-105	0.91	0.2%	160-165	0	0.0%
45-50	35.92	7.8%	105-110	0.32	0.1%	165-170	0	0.0%
50-55	37.59	8.2%	110-115	0.00	0.0%	170-175	0	0.0%
55-60	39.23	8.5%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	113	24.6%
0-60	259	56.2%
0-90	452	98.2%
90-180	8	1.8%



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	69.12	69.12	69.12	69.12	69.12	69.12	69.12	69.12	69.12	69.12	69.12	69.12	69.12	69.12	69.12
	5	65.17	65.17	65.17	65.17	65.17	65.17	65.17	65.17	65.17	65.17	65.17	65.17	65.17	65.17	65.17
	10	62.88	62.88	62.88	62.88	62.88	62.88	62.88	62.88	62.88	62.88	62.88	62.88	62.88	62.88	62.88
	15	64.66	64.66	64.66	64.66	64.66	64.66	64.66	64.66	64.66	64.66	64.66	64.66	64.66	64.66	64.66
	20	67.99	67.99	67.99	67.99	67.99	67.99	67.99	67.99	67.99	67.99	67.99	67.99	67.99	67.99	67.99
	25	75.09	75.09	75.09	75.09	75.09	75.09	75.09	75.09	75.09	75.09	75.09	75.09	75.09	75.09	75.09
	30	81.35	81.35	81.35	81.35	81.35	81.35	81.35	81.35	81.35	81.35	81.35	81.35	81.35	81.35	81.35
	35	85.61	85.61	85.61	85.61	85.61	85.61	85.61	85.61	85.61	85.61	85.61	85.61	85.61	85.61	85.61
	40	87.76	87.76	87.76	87.76	87.76	87.76	87.76	87.76	87.76	87.76	87.76	87.76	87.76	87.76	87.76
	45	89.20	89.20	89.20	89.20	89.20	89.20	89.20	89.20	89.20	89.20	89.20	89.20	89.20	89.20	89.20
	50	88.18	88.18	88.18	88.18	88.18	88.18	88.18	88.18	88.18	88.18	88.18	88.18	88.18	88.18	88.18
	55	85.39	85.39	85.39	85.39	85.39	85.39	85.39	85.39	85.39	85.39	85.39	85.39	85.39	85.39	85.39
	60	84.43	84.43	84.43	84.43	84.43	84.43	84.43	84.43	84.43	84.43	84.43	84.43	84.43	84.43	84.43
	65	83.44	83.44	83.44	83.44	83.44	83.44	83.44	83.44	83.44	83.44	83.44	83.44	83.44	83.44	83.44
	70	81.10	81.10	81.10	81.10	81.10	81.10	81.10	81.10	81.10	81.10	81.10	81.10	81.10	81.10	81.10
	75	75.62	75.62	75.62	75.62	75.62	75.62	75.62	75.62	75.62	75.62	75.62	75.62	75.62	75.62	75.62
	80	42.46	42.46	42.46	42.46	42.46	42.46	42.46	42.46	42.46	42.46	42.46	42.46	42.46	42.46	42.46
	85	35.01	35.01	35.01	35.01	35.01	35.01	35.01	35.01	35.01	35.01	35.01	35.01	35.01	35.01	35.01
	90	24.56	24.56	24.56	24.56	24.56	24.56	24.56	24.56	24.56	24.56	24.56	24.56	24.56	24.56	24.56
	95	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35
	100	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34
	105	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
	110	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	2131	2131
	45	5115	5115
	55	4578	4578
	65	4105	4105
	75	3542	3542
	85	1628	1628



Utilization of Lumens - Zonal Cavity Method

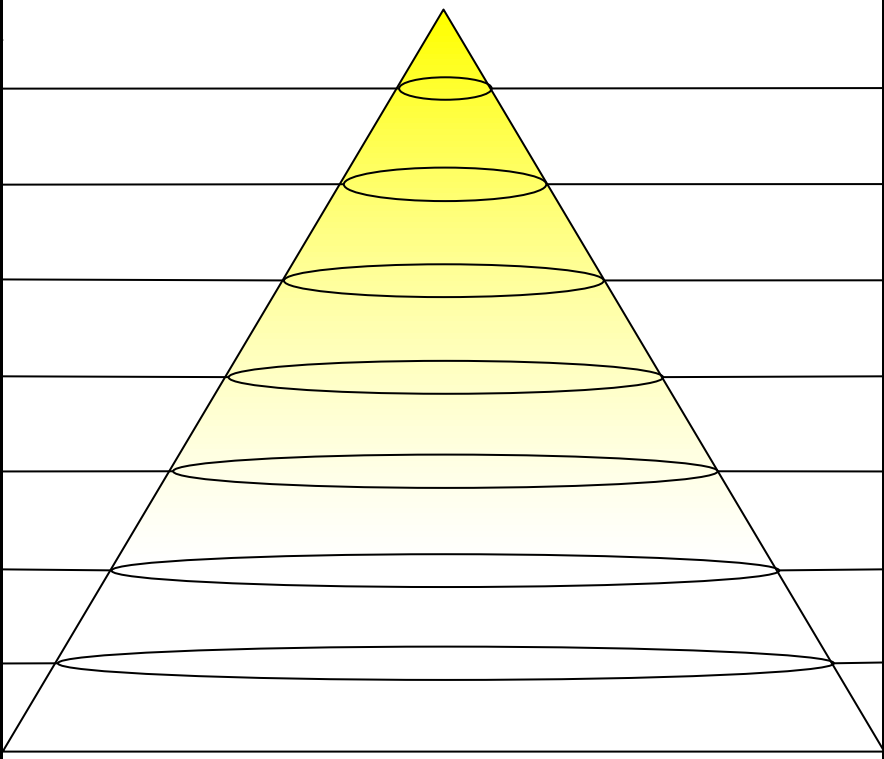
Effective Floor Cavity Reflectance 20%

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	546	546	546	546	532	532	532	532	507	507	507	484	484	484	462	462	462	452
1	476	444	416	390	461	433	407	383	410	389	369	390	372	356	371	357	343	332
2	420	370	328	293	406	360	321	289	341	308	280	324	296	272	307	285	264	252
3	375	314	266	228	361	305	261	225	289	251	220	274	242	215	260	233	209	197
4	338	271	221	184	326	263	217	182	250	210	178	237	202	174	225	195	170	158
5	307	237	188	151	296	231	184	150	219	178	147	208	172	144	198	167	142	130
6	281	210	162	127	271	204	159	126	195	154	124	185	149	122	177	145	120	109
7	259	187	141	109	249	183	139	108	175	135	106	167	131	105	159	127	103	93
8	239	169	125	94	231	165	123	94	158	120	92	151	116	91	145	113	90	80
9	223	154	111	83	215	150	110	82	144	107	81	138	104	80	133	102	79	70
10	208	141	100	73	201	138	99	73	132	97	72	127	94	71	122	92	70	61

Beam and Field Information

CIE Type:	Direct
Center Beam Intensity:	69.12 Candela
Central Cone Intensity:	67 Candela
Beam Flux:	436.5 Lumens
Beam Angle (0-180):	170.8 Degrees
Beam Angle (90-270):	170.8 Degrees
Field Angle (0-180):	185.3 Degrees
Field Angle (90-270):	185.3 Degrees

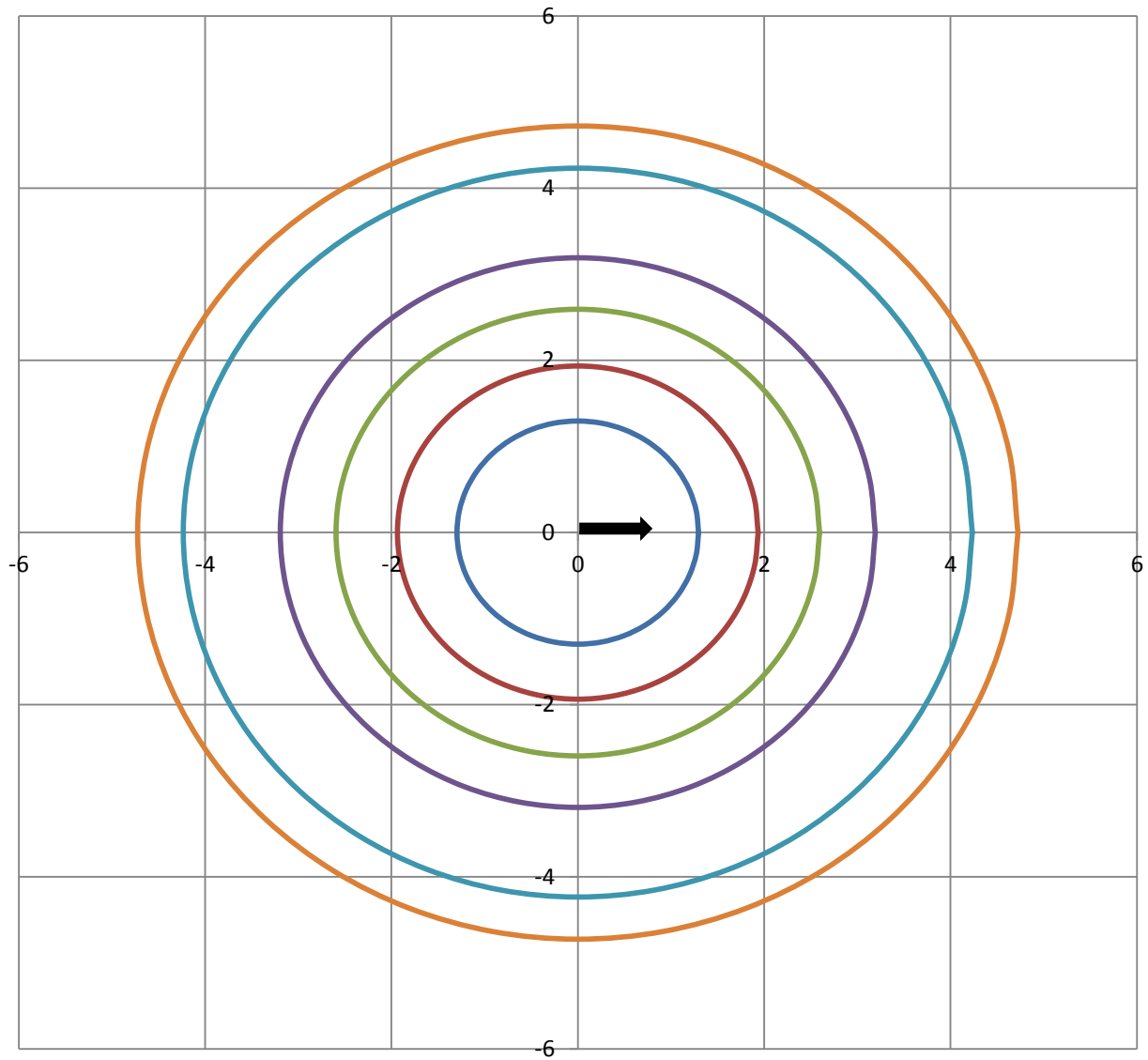
Cone of Light Tabulation

Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		4.32	7.48
6.00		1.92	11.2
8.00		1.08	15.0
10.0		0.691	18.7
12.0		0.480	22.5
14.0		0.353	26.2
16.0		0.270	29.9



ISOFootcandle Plot

Mounting Height - 2 Feet

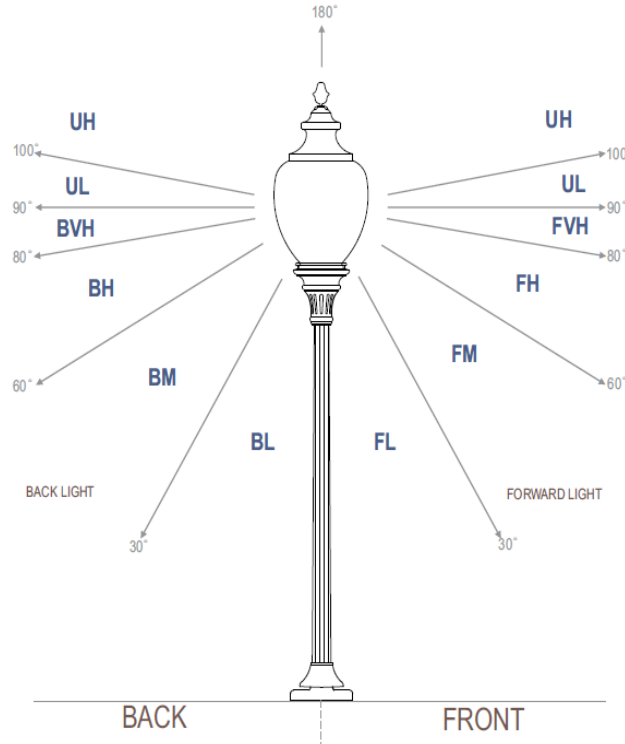


Grid Lines in Units of Mounting Height

5 fc 2 fc 1 fc 0.5 fc 0.2 fc 0.1 fc



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	29.8	6.5%
FM	(30-60)	99.4	21.5%
FH	(60-80)	77.8	16.9%
FVH	(80-90)	19.2	4.2%
BL	(0-30)	29.8	6.5%
BM	(30-60)	99.4	21.5%
BH	(60-80)	77.8	16.9%
BVH	(80-90)	19.2	4.2%
UL	(90-100)	7.8	1.7%
UH	(100-180)	1.3	0.3%
Total		461.4	100.0%
BUG Rating	B0 U1 G1		