



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-GL-12-30-25 (GRADUATED LOUVERS, 3000K)**  
Order Number  
11263738  
Test Number  
1254206

Test Date

2016-07-26

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 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: 8.00 in.  
Luminous Height: 1.500 in.

**Summary of Results**

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

**Test Conditions**

Test Temperature: 24.8 °C  
Voltage: 12.05 VAC  
Current: 1.884 A  
Power: 13.26 W  
Power Factor: 0.584  
Frequency: 60 Hz  
Current THD: 79.1 %

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
24.8 °C	12.05 VAC	1.884 A	13.26 W	0.584	60 Hz	79.1 %

### Summary of Results

#### Spacing Criteria

0-180: 1.81

90-270: 1.81

Total Lumen Output:

245.0 Lumens

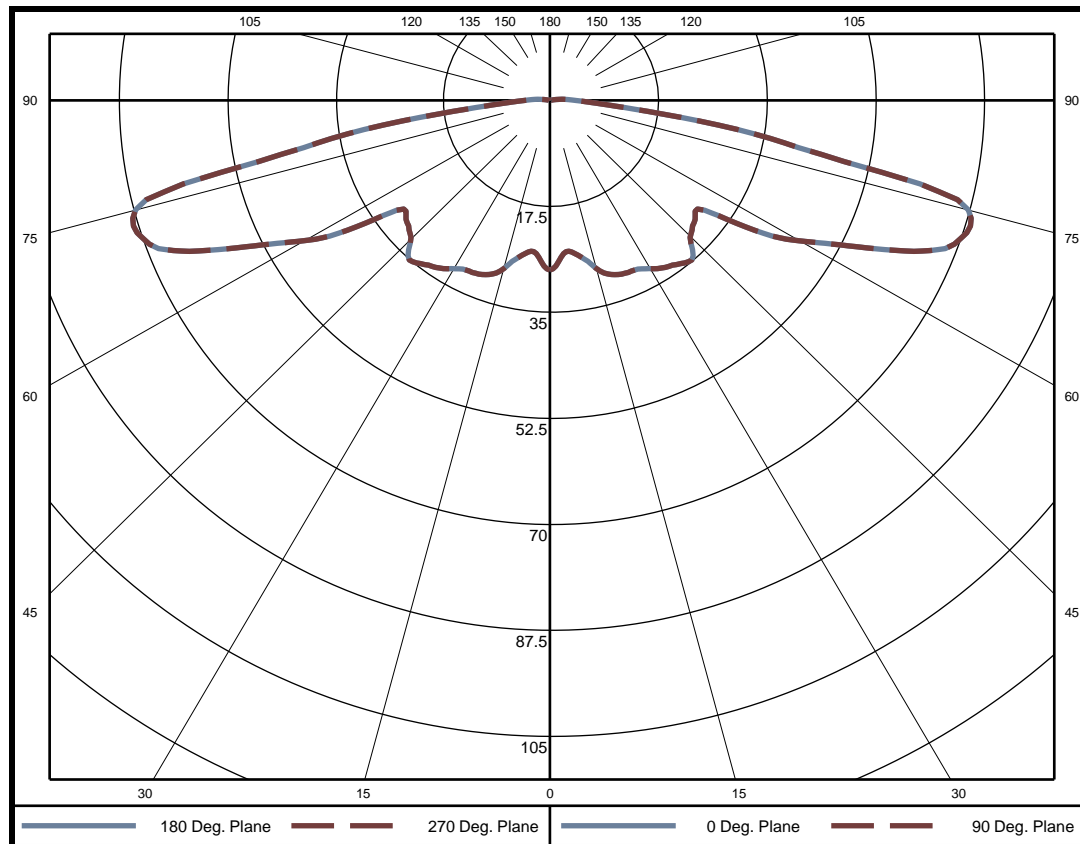
Luminaire Efficacy:

18.5 lm/w

Maximum Candela:

71 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	0.63	0.3%	60-65	25.12	10.3%	120-125	0	0.0%
5-10	1.82	0.7%	65-70	32.68	13.3%	125-130	0	0.0%
10-15	3.23	1.3%	70-75	36.77	15.0%	130-135	0	0.0%
15-20	4.92	2.0%	75-80	28.99	11.8%	135-140	0	0.0%
20-25	6.49	2.6%	80-85	11.93	4.9%	140-145	0	0.0%
25-30	7.96	3.2%	85-90	3.64	1.5%	145-150	0	0.0%
30-35	9.67	3.9%	90-95	1.71	0.7%	150-155	0	0.0%
35-40	11.37	4.6%	95-100	0.79	0.3%	155-160	0	0.0%
40-45	12.52	5.1%	100-105	0.21	0.1%	160-165	0	0.0%
45-50	12.60	5.1%	105-110	0.00	0.0%	165-170	0	0.0%
50-55	13.25	5.4%	110-115	0	0.0%	170-175	0	0.0%
55-60	18.70	7.6%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	46	18.8%
0-60	103	42.1%
0-90	242	98.9%
90-180	3	1.1%



### 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	27.99	27.99	27.99	27.99	27.99	27.99	27.99	27.99	27.99	27.99	27.99	27.99	27.99	27.99	27.99	27.99
5	25.37	25.37	25.37	25.37	25.37	25.37	25.37	25.37	25.37	25.37	25.37	25.37	25.37	25.37	25.37	25.37
10	25.91	25.91	25.91	25.91	25.91	25.91	25.91	25.91	25.91	25.91	25.91	25.91	25.91	25.91	25.91	25.91
15	28.66	28.66	28.66	28.66	28.66	28.66	28.66	28.66	28.66	28.66	28.66	28.66	28.66	28.66	28.66	28.66
20	30.59	30.59	30.59	30.59	30.59	30.59	30.59	30.59	30.59	30.59	30.59	30.59	30.59	30.59	30.59	30.59
25	31.07	31.07	31.07	31.07	31.07	31.07	31.07	31.07	31.07	31.07	31.07	31.07	31.07	31.07	31.07	31.07
30	32.04	32.04	32.04	32.04	32.04	32.04	32.04	32.04	32.04	32.04	32.04	32.04	32.04	32.04	32.04	32.04
35	33.43	33.43	33.43	33.43	33.43	33.43	33.43	33.43	33.43	33.43	33.43	33.43	33.43	33.43	33.43	33.43
40	34.74	34.74	34.74	34.74	34.74	34.74	34.74	34.74	34.74	34.74	34.74	34.74	34.74	34.74	34.74	34.74
45	31.95	31.95	31.95	31.95	31.95	31.95	31.95	31.95	31.95	31.95	31.95	31.95	31.95	31.95	31.95	31.95
50	30.56	30.56	30.56	30.56	30.56	30.56	30.56	30.56	30.56	30.56	30.56	30.56	30.56	30.56	30.56	30.56
55	33.09	33.09	33.09	33.09	33.09	33.09	33.09	33.09	33.09	33.09	33.09	33.09	33.09	33.09	33.09	33.09
60	46.31	46.31	46.31	46.31	46.31	46.31	46.31	46.31	46.31	46.31	46.31	46.31	46.31	46.31	46.31	46.31
65	57.92	57.92	57.92	57.92	57.92	57.92	57.92	57.92	57.92	57.92	57.92	57.92	57.92	57.92	57.92	57.92
70	69.36	69.36	69.36	69.36	69.36	69.36	69.36	69.36	69.36	69.36	69.36	69.36	69.36	69.36	69.36	69.36
75	69.81	69.81	69.81	69.81	69.81	69.81	69.81	69.81	69.81	69.81	69.81	69.81	69.81	69.81	69.81	69.81
80	36.07	36.07	36.07	36.07	36.07	36.07	36.07	36.07	36.07	36.07	36.07	36.07	36.07	36.07	36.07	36.07
85	10.50	10.50	10.50	10.50	10.50	10.50	10.50	10.50	10.50	10.50	10.50	10.50	10.50	10.50	10.50	10.50
90	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21
95	2.26	2.26	2.26	2.26	2.26	2.26	2.26	2.26	2.26	2.26	2.26	2.26	2.26	2.26	2.26	2.26
100	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
105	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
110	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
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/m<sup>2</sup>)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)

	0	45	90
0	863	863	863
45	1832	1832	1832
55	1774	1774	1774
65	2849	2849	2849
75	3270	3270	3270
85	489	489	489



### 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	291	291	291	291	284	284	284	284	271	271	271	259	259	259	248	248	248	242
1	250	231	215	200	242	225	210	196	213	201	189	203	192	182	193	184	176	170
2	216	186	162	141	208	181	158	139	171	152	135	162	145	131	153	139	127	120
3	190	155	127	105	183	150	124	103	141	119	101	133	114	98	126	110	96	89
4	170	132	103	81	164	128	101	80	120	97	79	114	93	77	107	90	75	68
5	154	114	86	66	148	111	85	65	105	82	64	99	79	62	94	76	61	55
6	141	101	74	54	136	98	73	54	93	70	53	88	68	52	83	65	51	45
7	130	90	64	46	125	88	63	46	83	61	45	79	59	44	75	57	44	38
8	121	81	57	40	116	79	56	40	76	54	39	72	53	39	69	51	38	33
9	112	74	51	35	108	72	50	35	69	49	34	66	47	34	63	46	34	28
10	105	68	46	31	101	67	45	31	64	44	31	61	43	30	59	42	30	25

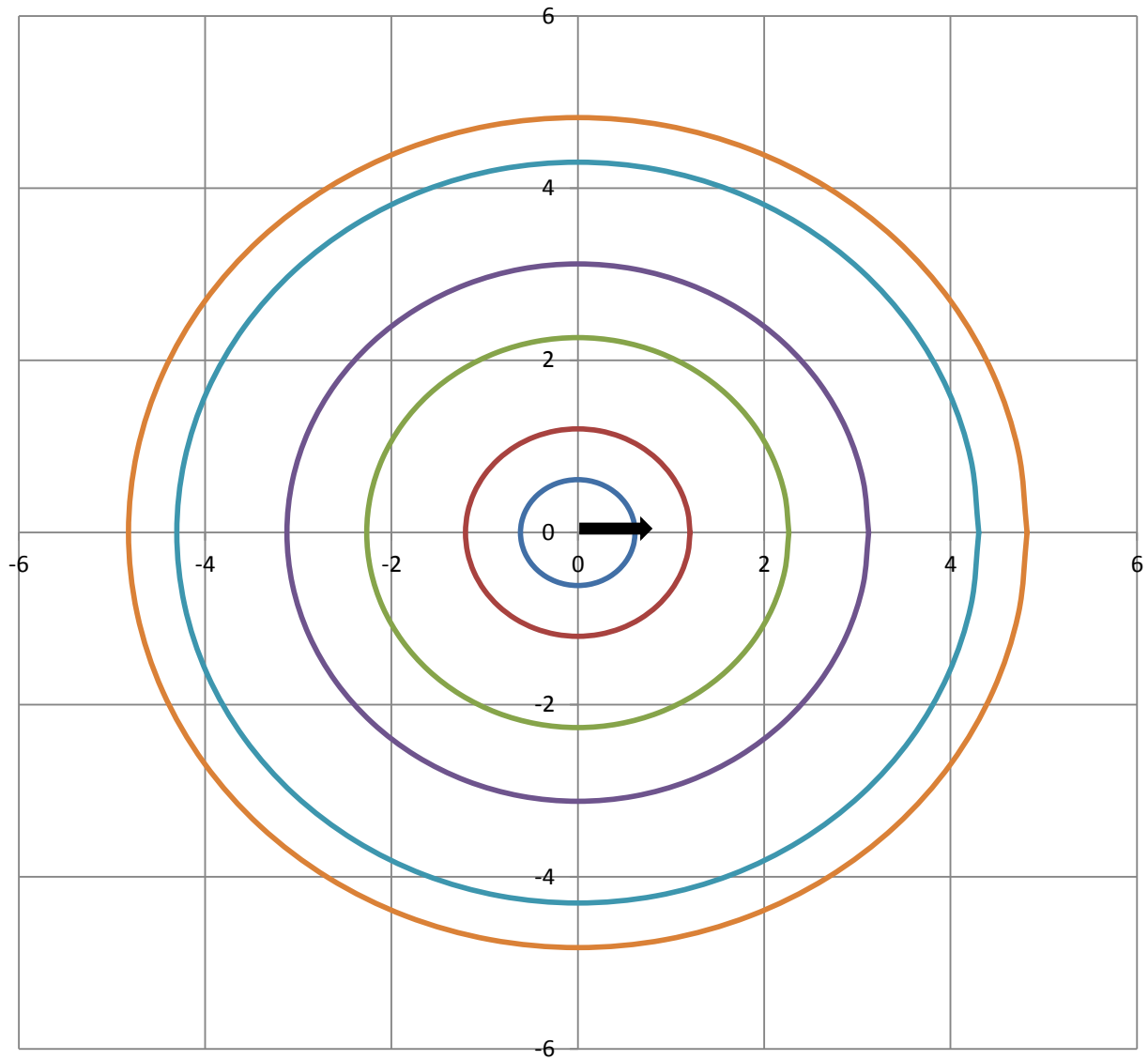
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	27.99 Candela
Central Cone Intensity:	27 Candela
Beam Flux:	237.3 Lumens
Beam Angle (0-180):	167.8 Degrees
Beam Angle (90-270):	167.8 Degrees
Field Angle (0-180):	186.6 Degrees
Field Angle (90-270):	186.6 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		1.75	7.25
6.00		0.777	10.9
8.00		0.437	14.5
10.0		0.280	18.1
12.0		0.194	21.7
14.0		0.143	25.4
16.0		0.109	29.0



## ISOFootcandle Plot

Mounting Height - 2 Feet

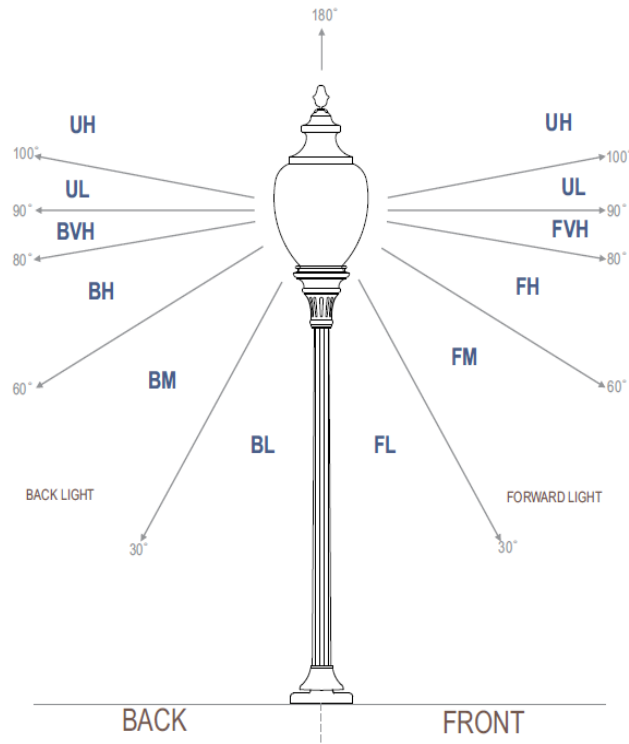


Grid Lines in Units of Mounting Height

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)	12.5	5.1%
FM	(30-60)	39.0	16.0%
FH	(60-80)	61.3	25.1%
FVH	(80-90)	7.8	3.2%
BL	(0-30)	12.5	5.1%
BM	(30-60)	39.0	16.0%
BH	(60-80)	61.3	25.1%
BVH	(80-90)	7.8	3.2%
UL	(90-100)	2.5	1.0%
UH	(100-180)	0.2	0.1%
Total		244.0	100.0%
BUG Rating	B0 U1 G0		