



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-S7-GL-12-30-25 (GRADUATED LOUVERS, 3000K)
Order Number
11263738
Test Number
1254207

Test Date

2016-07-20

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: Spherical 7" 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: 7.00 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: 12.04 VAC
Current: 1.884 A
Power: 13.27 W
Power Factor: 0.585
Frequency: 60 Hz
Current THD: 78.9 %

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	12.04 VAC	1.884 A	13.27 W	0.585	60 Hz	78.9 %

Summary of Results

Spacing Criteria

0-180: 1.07
90-270: 1.07

Total Lumen Output:

229.6 Lumens

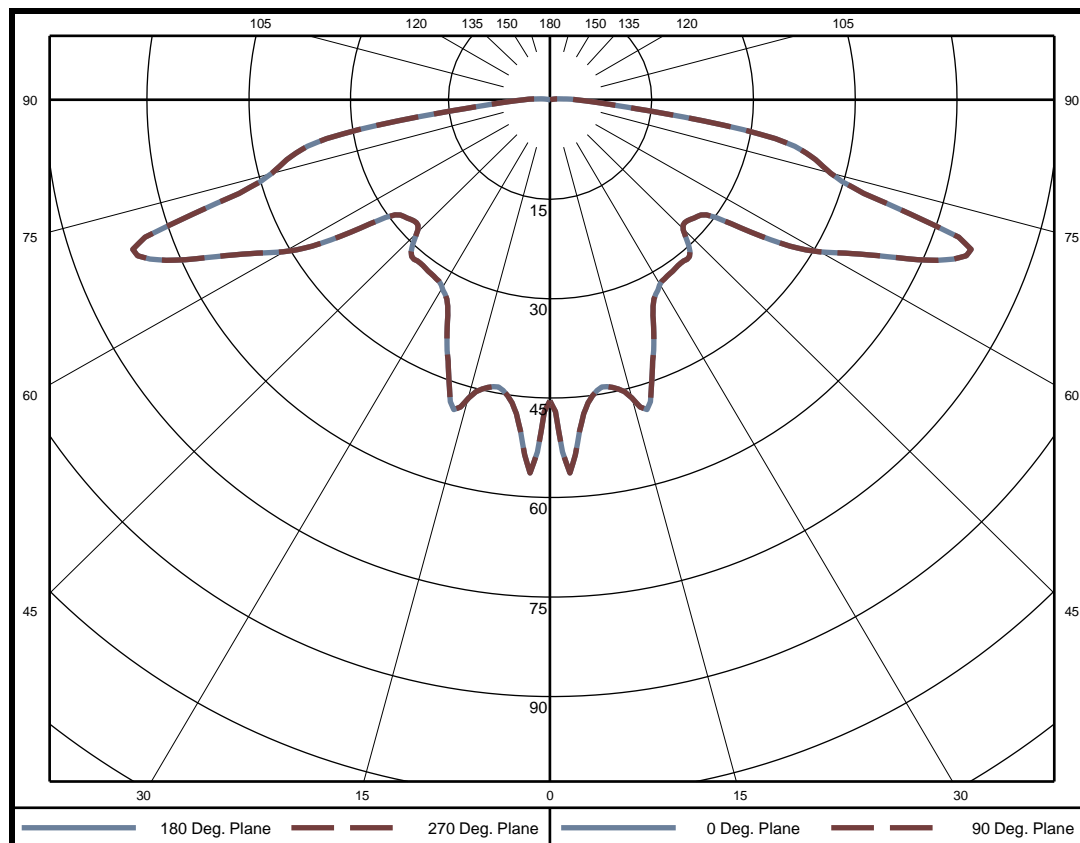
Luminaire Efficacy:

17.3 lm/w

Maximum Candela:

66 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	1.27	0.6%	60-65	24.60	10.7%	120-125	0	0.0%
5-10	3.27	1.4%	65-70	31.63	13.8%	125-130	0	0.0%
10-15	5.32	2.3%	70-75	27.87	12.1%	130-135	0	0.0%
15-20	7.77	3.4%	75-80	20.87	9.1%	135-140	0	0.0%
20-25	8.35	3.6%	80-85	11.20	4.9%	140-145	0	0.0%
25-30	8.52	3.7%	85-90	3.48	1.5%	145-150	0	0.0%
30-35	9.37	4.1%	90-95	1.51	0.7%	150-155	0	0.0%
35-40	10.46	4.6%	95-100	0.63	0.3%	155-160	0	0.0%
40-45	11.13	4.8%	100-105	0.18	0.1%	160-165	0	0.0%
45-50	11.06	4.8%	105-110	0.00	0.0%	165-170	0	0.0%
50-55	12.65	5.5%	110-115	0	0.0%	170-175	0	0.0%
55-60	18.46	8.0%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	54	23.7%
0-60	108	46.9%
0-90	227	99.0%
90-180	2	1.0%



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	45.41	45.41	45.41	45.41	45.41	45.41	45.41	45.41	45.41	45.41	45.41	45.41	45.41	45.41	45.41
	5	50.14	50.14	50.14	50.14	50.14	50.14	50.14	50.14	50.14	50.14	50.14	50.14	50.14	50.14	50.14
	10	43.99	43.99	43.99	43.99	43.99	43.99	43.99	43.99	43.99	43.99	43.99	43.99	43.99	43.99	43.99
	15	46.54	46.54	46.54	46.54	46.54	46.54	46.54	46.54	46.54	46.54	46.54	46.54	46.54	46.54	46.54
	20	44.00	44.00	44.00	44.00	44.00	44.00	44.00	44.00	44.00	44.00	44.00	44.00	44.00	44.00	44.00
	25	35.90	35.90	35.90	35.90	35.90	35.90	35.90	35.90	35.90	35.90	35.90	35.90	35.90	35.90	35.90
	30	32.27	32.27	32.27	32.27	32.27	32.27	32.27	32.27	32.27	32.27	32.27	32.27	32.27	32.27	32.27
	35	31.54	31.54	31.54	31.54	31.54	31.54	31.54	31.54	31.54	31.54	31.54	31.54	31.54	31.54	31.54
	40	31.41	31.41	31.41	31.41	31.41	31.41	31.41	31.41	31.41	31.41	31.41	31.41	31.41	31.41	31.41
	45	27.74	27.74	27.74	27.74	27.74	27.74	27.74	27.74	27.74	27.74	27.74	27.74	27.74	27.74	27.74
	50	27.73	27.73	27.73	27.73	27.73	27.73	27.73	27.73	27.73	27.73	27.73	27.73	27.73	27.73	27.73
	55	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57
	60	45.86	45.86	45.86	45.86	45.86	45.86	45.86	45.86	45.86	45.86	45.86	45.86	45.86	45.86	45.86
	65	56.31	56.31	56.31	56.31	56.31	56.31	56.31	56.31	56.31	56.31	56.31	56.31	56.31	56.31	56.31
	70	65.98	65.98	65.98	65.98	65.98	65.98	65.98	65.98	65.98	65.98	65.98	65.98	65.98	65.98	65.98
	75	42.77	42.77	42.77	42.77	42.77	42.77	42.77	42.77	42.77	42.77	42.77	42.77	42.77	42.77	42.77
	80	33.71	33.71	33.71	33.71	33.71	33.71	33.71	33.71	33.71	33.71	33.71	33.71	33.71	33.71	33.71
	85	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89
	90	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94
	95	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66
	100	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
	105	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
	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
	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)	Horizontal Angle (Degrees)			
	0	45	90	
	0	1829	1829	1829
	45	2029	2029	2029
	55	2187	2187	2187
	65	3519	3519	3519
	75	2586	2586	2586
85	602	602	602	



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	273	273	273	273	266	266	266	266	254	254	254	243	243	243	232	232	232	227
1	237	220	206	192	229	214	201	189	204	193	182	194	185	176	185	177	170	164
2	207	181	159	140	200	176	155	138	166	149	134	158	143	131	150	138	127	121
3	184	152	127	107	177	147	124	106	139	120	103	132	115	101	125	111	99	92
4	165	130	105	85	159	127	103	84	120	99	83	114	96	81	108	92	79	73
5	150	114	89	70	144	111	87	70	105	84	68	100	82	67	95	79	66	60
6	138	101	77	59	133	99	76	59	94	73	58	90	71	57	85	69	56	51
7	127	91	68	51	123	89	67	51	85	65	50	81	63	50	78	61	49	44
8	118	83	61	45	114	81	60	45	78	58	44	74	57	44	71	55	43	38
9	111	76	55	40	107	74	54	40	71	53	40	68	52	39	66	50	39	34
10	104	70	50	36	100	69	49	36	66	48	36	64	47	36	61	46	35	31

Beam and Field Information

CIE Type:	Direct
Center Beam Intensity:	45.41 Candela
Central Cone Intensity:	51 Candela
Beam Flux:	218.9 Lumens
Beam Angle (0-180):	164.0 Degrees
Beam Angle (90-270):	164.0 Degrees
Field Angle (0-180):	178.3 Degrees
Field Angle (90-270):	178.3 Degrees

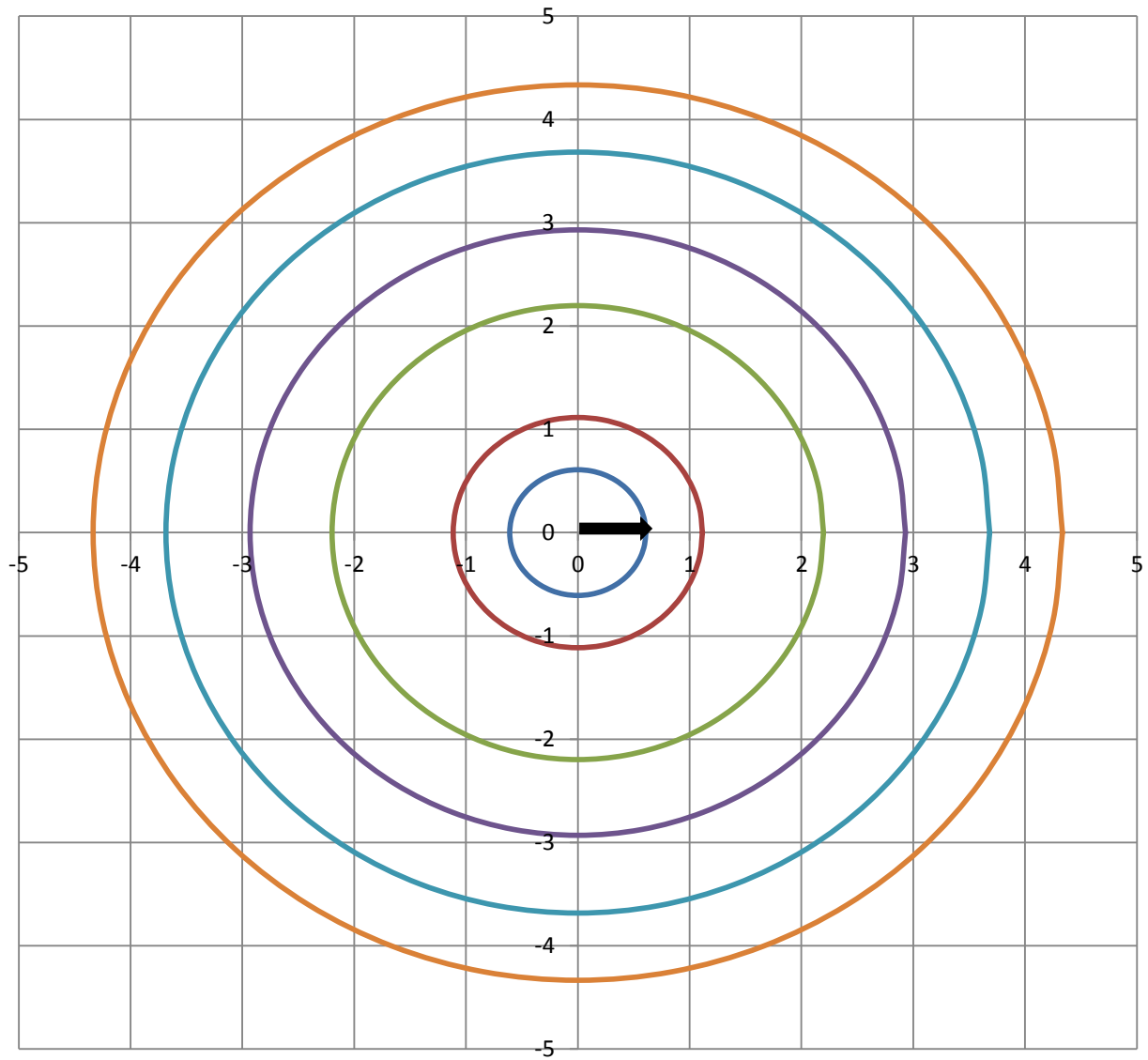
Cone of Light Tabulation

Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		2.84	4.28
6.00		1.26	6.42
8.00		0.709	8.57
10.0		0.454	10.7
12.0		0.315	12.8
14.0		0.232	15.0
16.0		0.177	17.1



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)	17.3	7.6%
FM	(30-60)	36.6	16.0%
FH	(60-80)	51.8	22.7%
FVH	(80-90)	7.3	3.2%
BL	(0-30)	17.3	7.6%
BM	(30-60)	36.6	16.0%
BH	(60-80)	51.8	22.7%
BVH	(80-90)	7.3	3.2%
UL	(90-100)	2.2	0.9%
UH	(100-180)	0.2	0.1%
Total		228.5	100.0%
BUG Rating	B0 U1 G0		