



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  
**LSL6-NS-M-30 (25° OPTIC, 3000K)**  
Order Number  
11263738  
Test Number  
1259681

Test Date

2016-06-09

Prepared By

Khang Nguyen, 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:** Cylindrical brass housing with brass multi-directional ball and base  
**Lamp:** One (1) Cree XP-L 3000K LED with 25°, medium optic  
**Mounting:** Flood

#### Luminaire



#### Luminaire Characteristics

Luminous Diameter: 0.75 in.

#### Summary of Results

Roadway Classification: Type V, Very Short  
Cutoff Classification: Full Cutoff  
BUG Rating: B0 U0 G0

#### Test Conditions

Test Temperature: 25.0 °C  
Voltage: 12.11 VAC  
Current: 0.4684 A  
Power: 3.079 W  
Power Factor: 0.543  
Frequency: 60 Hz  
Current THD: 120 %

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
25.0 °C	12.11 VAC	0.4684 A	3.079 W	0.543	60 Hz	120 %

### Summary of Results

#### Spacing Criteria

0-180: 0.40  
90-270: 0.40

#### Total Lumen Output:

171.4 Lumens

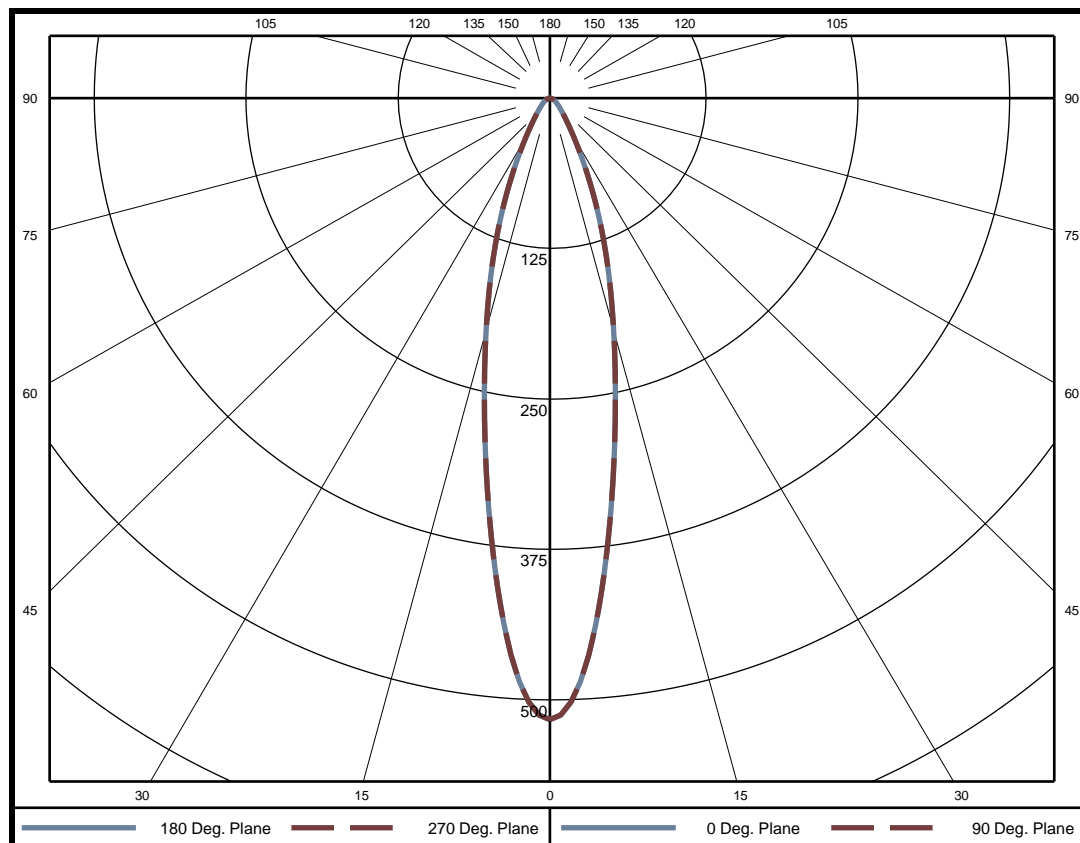
#### Luminaire Efficacy:

55.7 lm/w

#### Maximum Candela:

516 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	11.36	6.6%	60-65	2.20	1.3%	120-125	0	0.0%
5-10	26.03	15.2%	65-70	1.74	1.0%	125-130	0	0.0%
10-15	29.60	17.3%	70-75	1.30	0.8%	130-135	0	0.0%
15-20	27.47	16.0%	75-80	0.89	0.5%	135-140	0	0.0%
20-25	22.11	12.9%	80-85	0.51	0.3%	140-145	0	0.0%
25-30	15.42	9.0%	85-90	0.15	0.1%	145-150	0	0.0%
30-35	10.18	5.9%	90-95	0	0.0%	150-155	0	0.0%
35-40	7.07	4.1%	95-100	0	0.0%	155-160	0	0.0%
40-45	5.26	3.1%	100-105	0	0.0%	160-165	0	0.0%
45-50	4.12	2.4%	105-110	0	0.0%	165-170	0	0.0%
50-55	3.32	1.9%	110-115	0	0.0%	170-175	0	0.0%
55-60	2.71	1.6%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	149	87.1%
0-60	165	96.1%
0-90	171	100.0%
90-180	0	0.0%



### 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	516.2	516.2	516.2	516.2	516.2	516.2	516.2	516.2	516.2	516.2	516.2	516.2	516.2	516.2	516.2
	5	438.1	438.1	438.1	438.1	438.1	438.1	438.1	438.1	438.1	438.1	438.1	438.1	438.1	438.1	438.1
	10	306.0	306.0	306.0	306.0	306.0	306.0	306.0	306.0	306.0	306.0	306.0	306.0	306.0	306.0	306.0
	15	205.3	205.3	205.3	205.3	205.3	205.3	205.3	205.3	205.3	205.3	205.3	205.3	205.3	205.3	205.3
	20	134.5	134.5	134.5	134.5	134.5	134.5	134.5	134.5	134.5	134.5	134.5	134.5	134.5	134.5	134.5
	25	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7
	30	45.2	45.2	45.2	45.2	45.2	45.2	45.2	45.2	45.2	45.2	45.2	45.2	45.2	45.2	45.2
	35	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5
	40	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1
	45	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9
	50	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
	55	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
	60	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	65	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
	70	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
	75	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
	80	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
	85	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
	90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	105	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	110	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	115	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	125	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	135	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	155	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	160	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	165	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Average Luminance (cd/m<sup>2</sup>)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	1811000	1811000
	45	59010	59010
	55	40730	40730
	65	32780	32780
	75	27900	27900
	85	23780	23780



### Utilization of Lumens - Zonal Cavity Method

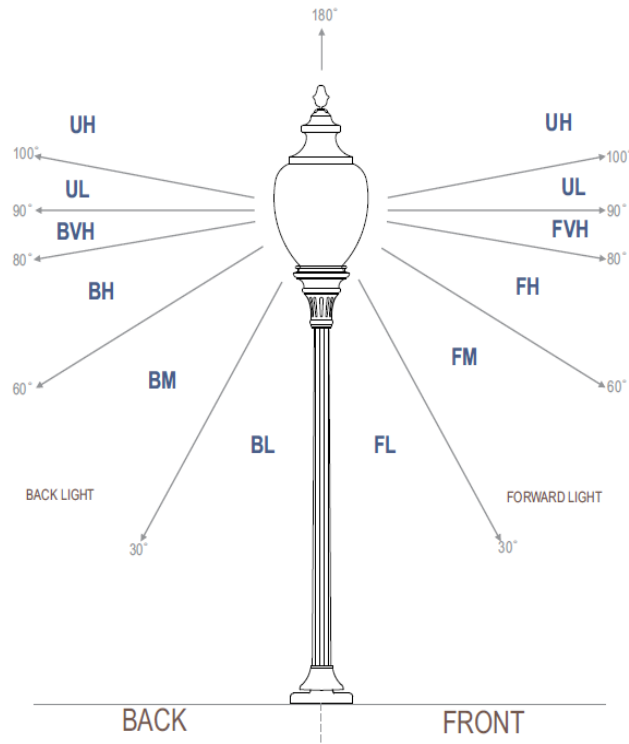
Effective Floor Cavity Reflectance 20%																		
Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																	
0	204	204	204	204	199	199	199	199	190	190	190	182	182	182	175	175	175	171
1	194	190	185	182	190	186	182	179	179	176	173	173	170	168	167	165	163	160
2	185	177	170	164	181	174	168	162	168	163	159	163	159	156	159	155	152	149
3	177	166	158	151	173	163	156	150	159	153	147	155	150	145	151	147	143	140
4	169	156	147	140	166	154	146	139	151	143	138	147	141	136	144	139	135	132
5	161	148	138	131	159	146	137	131	143	136	130	140	134	129	138	132	127	125
6	154	140	131	124	152	139	130	123	136	129	123	134	127	122	132	126	121	119
7	148	134	124	117	146	132	123	117	130	122	116	128	121	116	126	120	115	113
8	142	128	118	112	140	127	118	111	125	117	111	123	116	111	122	115	110	108
9	137	122	113	107	135	121	112	107	120	112	106	118	111	106	117	110	105	103
10	132	117	108	102	130	116	108	102	115	107	102	114	107	102	113	106	101	99

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	516.2 Candela
Central Cone Intensity:	487 Candela
Beam Flux:	50.1 Lumens
Beam Angle (0-180):	24.3 Degrees
Beam Angle (90-270):	24.3 Degrees
Field Angle (0-180):	57.7 Degrees
Field Angle (90-270):	57.7 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
6.00		14.3	2.42
10.0		5.16	4.03
14.0		2.63	5.65
18.0		1.59	7.26
22.0		1.07	8.88
26.0		0.764	10.5
30.0		0.574	12.1



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



**Luminaire Classification System (LCS)**

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	66.1	38.5%
FM	(30-60)	16.4	9.5%
FH	(60-80)	3.1	1.8%
FVH	(80-90)	0.3	0.2%
BL	(0-30)	66.1	38.5%
BM	(30-60)	16.4	9.5%
BH	(60-80)	3.1	1.8%
BVH	(80-90)	0.3	0.2%
UL	(90-100)	0.0	0.0%
UH	(100-180)	0.0	0.0%
Total		171.7	100.0%
BUG Rating	B0 U0 G0		