



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-W-30 (40° OPTIC, 3000K)**  
Order Number  
11263738  
Test Number  
1259682

Test Date

2016-06-10

Prepared By

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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 40°, wide 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:	24.9 °C
Voltage:	12.11 VAC
Current:	0.4656 A
Power:	3.060 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
24.9 °C	12.11 VAC	0.4656 A	3.060 W	0.543	60 Hz	120 %

### Summary of Results

#### Spacing Criteria

0-180: 0.60  
90-270: 0.60

#### Total Lumen Output:

155.9 Lumens

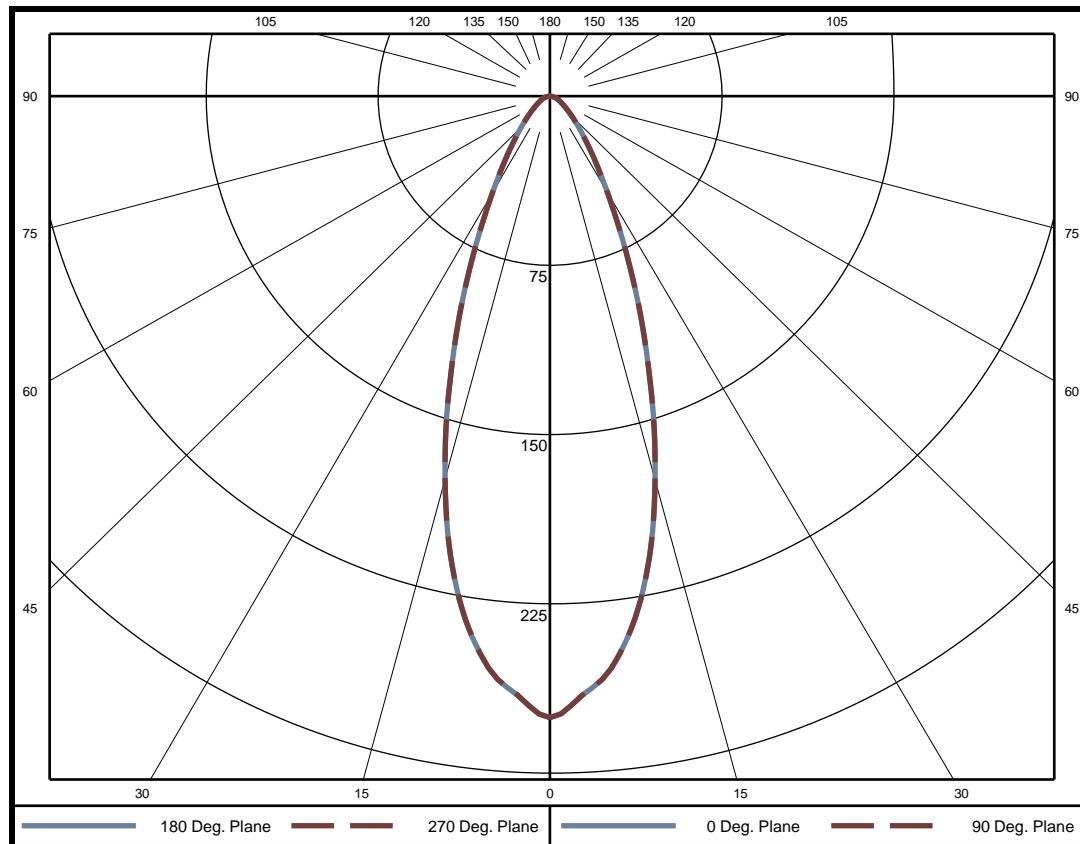
#### Luminaire Efficacy:

50.9 lm/w

#### Maximum Candela:

275 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	6.34	4.1%	60-65	2.42	1.6%	120-125	0	0.0%
5-10	17.37	11.1%	65-70	1.92	1.2%	125-130	0	0.0%
10-15	23.78	15.3%	70-75	1.44	0.9%	130-135	0	0.0%
15-20	24.36	15.6%	75-80	0.97	0.6%	135-140	0	0.0%
20-25	20.96	13.4%	80-85	0.52	0.3%	140-145	0	0.0%
25-30	16.11	10.3%	85-90	0.13	0.1%	145-150	0	0.0%
30-35	11.97	7.7%	90-95	0	0.0%	150-155	0	0.0%
35-40	8.91	5.7%	95-100	0	0.0%	155-160	0	0.0%
40-45	6.70	4.3%	100-105	0	0.0%	160-165	0	0.0%
45-50	5.08	3.3%	105-110	0	0.0%	165-170	0	0.0%
50-55	3.87	2.5%	110-115	0	0.0%	170-175	0	0.0%
55-60	3.02	1.9%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	130	83.3%
0-60	148	95.2%
0-90	156	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	275.3	275.3	275.3	275.3	275.3	275.3	275.3	275.3	275.3	275.3	275.3	275.3	275.3	275.3	275.3	275.3
5	259.4	259.4	259.4	259.4	259.4	259.4	259.4	259.4	259.4	259.4	259.4	259.4	259.4	259.4	259.4	259.4
10	226.4	226.4	226.4	226.4	226.4	226.4	226.4	226.4	226.4	226.4	226.4	226.4	226.4	226.4	226.4	226.4
15	175.7	175.7	175.7	175.7	175.7	175.7	175.7	175.7	175.7	175.7	175.7	175.7	175.7	175.7	175.7	175.7
20	122.9	122.9	122.9	122.9	122.9	122.9	122.9	122.9	122.9	122.9	122.9	122.9	122.9	122.9	122.9	122.9
25	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	80.0
30	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4
35	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7
40	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8
45	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
50	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
55	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
60	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
65	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
70	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
75	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
80	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	0.0

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

Horizontal Angle (Degrees)

Vertical Angle (Degrees)

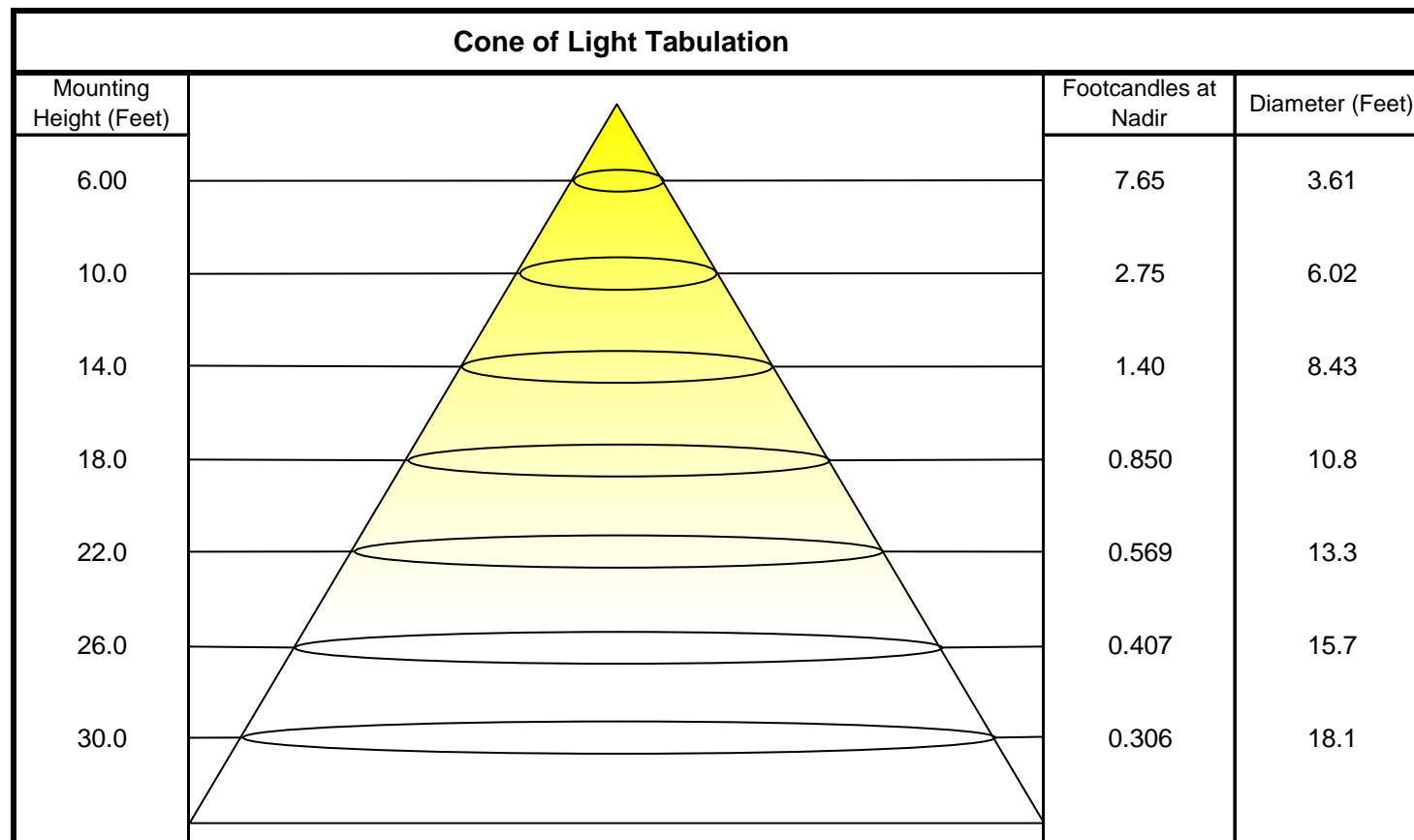
	0	45	90
0	965900	965900	965900
45	74390	74390	74390
55	46130	46130	46130
65	36130	36130	36130
75	30770	30770	30770
85	22770	22770	22770



### Utilization of Lumens - Zonal Cavity Method

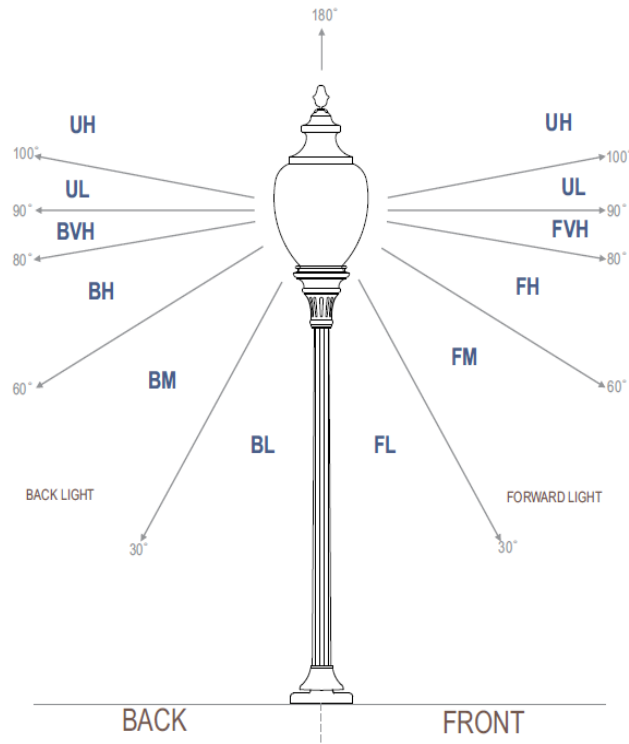
Effective Floor Cavity Reflectance 20%																		
Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																	
0	186	186	186	186	181	181	181	181	173	173	173	166	166	166	159	159	159	156
1	176	171	167	163	172	168	164	161	162	159	156	156	153	151	150	148	147	144
2	167	158	152	146	163	156	150	144	151	146	141	146	142	138	142	138	135	133
3	158	147	139	133	155	145	138	132	141	135	129	137	132	127	134	129	125	123
4	150	138	129	122	147	136	127	121	132	125	120	129	123	118	126	121	117	114
5	142	129	120	113	140	128	119	112	125	117	111	122	115	110	120	114	109	107
6	136	121	112	105	133	120	111	105	118	110	104	116	109	103	114	107	103	100
7	129	115	105	99	127	114	105	98	112	104	98	110	103	97	108	102	97	95
8	124	109	99	93	122	108	99	93	106	98	92	104	97	92	103	96	92	89
9	118	103	94	88	116	102	94	88	101	93	87	100	92	87	98	92	87	85
10	113	98	89	83	112	98	89	83	96	89	83	95	88	83	94	87	83	81

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	275.3 Candela
Central Cone Intensity:	268 Candela
Beam Flux:	65.0 Lumens
Beam Angle (0-180):	37.1 Degrees
Beam Angle (90-270):	37.1 Degrees
Field Angle (0-180):	74.1 Degrees
Field Angle (90-270):	74.1 Degrees





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



**Luminaire Classification System (LCS)**

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	54.5	34.9%
FM	(30-60)	19.8	12.7%
FH	(60-80)	3.4	2.2%
FVH	(80-90)	0.3	0.2%
BL	(0-30)	54.5	34.9%
BM	(30-60)	19.8	12.7%
BH	(60-80)	3.4	2.2%
BVH	(80-90)	0.3	0.2%
UL	(90-100)	0.0	0.0%
UH	(100-180)	0.0	0.0%
Total		156.0	100.0%
BUG Rating	B0 U0 G0		