



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-N-30 (15° OPTIC, 3000K)
Order Number
11263738
Test Number
1259680

Test Date

2016-06-10

Prepared By

Khang Nguyen, Technician

Approved By

Eric Gaudreau, Senior Engineering Associate

The results contained in this report pertain only to the tested sample.
This report shall not be reproduced, except in full, without written approval of Underwriters Laboratories.
This report must not be used by the client to claim product certification, approval, or endorsement by
NVLAP, NIST, or any agency of the Federal Government.



Luminaire Description: Cylindrical brass housing with brass multi-directional ball and base
Lamp: One (1) Cree XP-L 3000K LED with 15°, narrow 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:	0.4655 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
25.0 °C	12.11 VAC	0.4655 A	3.060 W	0.543	60 Hz	120 %

Summary of Results

Spacing Criteria

0-180: 0.12

90-270: 0.12

Total Lumen Output:

145.5 Lumens

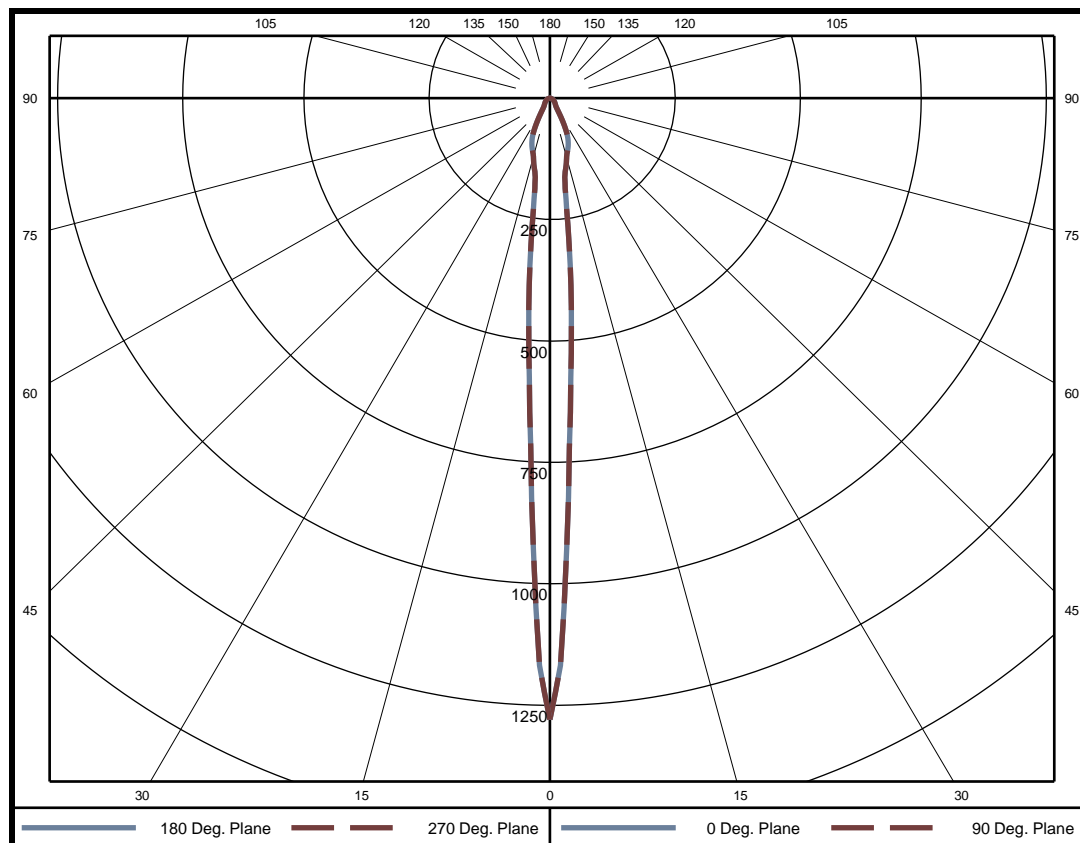
Luminaire Efficacy:

47.5 lm/w

Maximum Candela:

1279 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	16.98	11.7%	60-65	3.11	2.1%	120-125	0	0.0%
5-10	19.29	13.3%	65-70	2.50	1.7%	125-130	0	0.0%
10-15	16.90	11.6%	70-75	1.80	1.2%	130-135	0	0.0%
15-20	18.61	12.8%	75-80	1.13	0.8%	135-140	0	0.0%
20-25	18.79	12.9%	80-85	0.52	0.4%	140-145	0	0.0%
25-30	13.41	9.2%	85-90	0.10	0.1%	145-150	0	0.0%
30-35	7.57	5.2%	90-95	0	0.0%	150-155	0	0.0%
35-40	6.00	4.1%	95-100	0	0.0%	155-160	0	0.0%
40-45	5.52	3.8%	100-105	0	0.0%	160-165	0	0.0%
45-50	5.07	3.5%	105-110	0	0.0%	165-170	0	0.0%
50-55	4.48	3.1%	110-115	0	0.0%	170-175	0	0.0%
55-60	3.74	2.6%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	118	80.8%
0-60	136	93.7%
0-90	146	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	1279	1279	1279	1279	1279	1279	1279	1279	1279	1279	1279	1279	1279	1279	1279	1279
5	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475
10	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
15	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125
20	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103
25	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74
30	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
35	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
40	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
45	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
50	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
55	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
60	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
65	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
70	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
75	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
80	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90	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
100	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
110	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
120	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
130	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
140	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
150	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
160	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
170	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
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)

	0	45	90
0	4488000	4488000	4488000
45	67950	67950	67950
55	55940	55940	55940
65	47120	47120	47120
75	37420	37420	37420
85	18370	18370	18370



Utilization of Lumens - Zonal Cavity Method

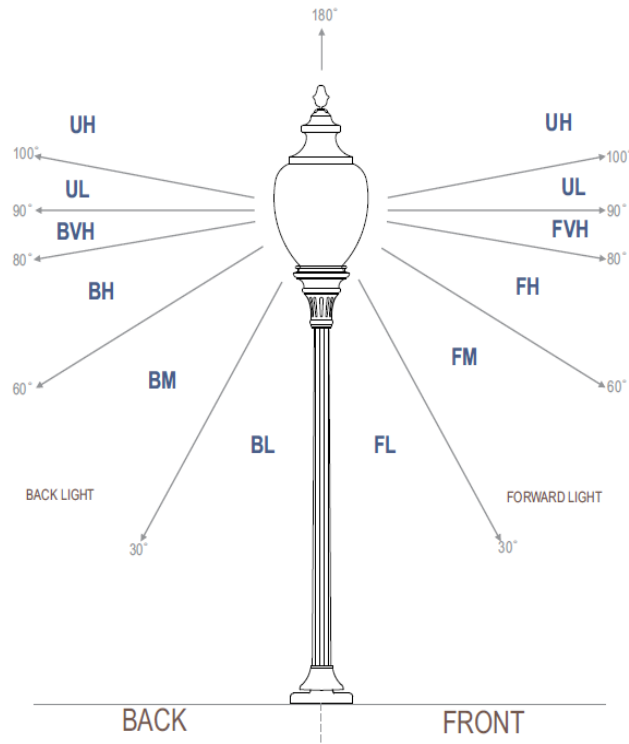
Effective Floor Cavity Reflectance 20%																		
Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																	
0	173	173	173	173	169	169	169	169	162	162	162	155	155	155	148	148	148	145
1	164	160	156	153	161	157	153	150	151	148	145	145	143	141	140	139	137	134
2	156	148	142	137	152	146	140	135	141	136	132	137	133	129	132	129	127	124
3	148	138	131	125	145	136	129	124	132	126	122	129	124	120	125	121	118	115
4	141	129	121	115	138	128	120	114	125	118	113	122	116	112	119	114	110	108
5	134	122	113	107	132	121	113	107	118	111	106	116	110	105	113	108	104	102
6	128	115	107	101	126	114	106	100	112	105	100	110	104	99	108	103	98	96
7	123	110	101	95	121	109	101	95	107	100	95	105	99	94	104	98	94	92
8	118	105	96	91	116	104	96	90	102	95	90	101	94	90	99	94	89	87
9	113	100	92	87	112	99	92	86	98	91	86	97	90	86	96	90	86	84
10	109	96	88	83	108	96	88	83	94	87	83	93	87	82	92	86	82	80

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1279 Candela
Central Cone Intensity:	856 Candela
Beam Flux:	10.4 Lumens
Beam Angle (0-180):	7.1 Degrees
Beam Angle (90-270):	7.1 Degrees
Field Angle (0-180):	29.1 Degrees
Field Angle (90-270):	29.1 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
6.00		35.5	0.741
10.0		12.8	1.23
14.0		6.53	1.73
18.0		3.95	2.22
22.0		2.64	2.72
26.0		1.89	3.21
30.0		1.42	3.70



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	52.1	35.7%
FM	(30-60)	16.2	11.1%
FH	(60-80)	4.3	2.9%
FVH	(80-90)	0.3	0.2%
BL	(0-30)	52.1	35.7%
BM	(30-60)	16.2	11.1%
BH	(60-80)	4.3	2.9%
BVH	(80-90)	0.3	0.2%
UL	(90-100)	0.0	0.0%
UH	(100-180)	0.0	0.0%
Total		145.9	100.0%
BUG Rating	B0 U0 G0		