



UL Verification Services Inc.  
7036 Snowdrift Road  
Allentown, PA 18106  
610-774-1300



## Photometric Test Report

Relevant Standards  
IES LM-79-2008, ANSI C82.77-2002

**Prepared For**  
**Auroralight Inc**

Stacia Elmore  
2742 Loker Ave W  
#100  
Carlsbad, CA 92010-6619  
United States

**Catalog Number**  
**LPL5-SQ-6-30 (6W, 3000K)**

Order Number  
14012719  
Test Number  
14012719.05

Test Date

2021-09-30

Prepared By

Cordaryl Cousar, Technician

Approved By

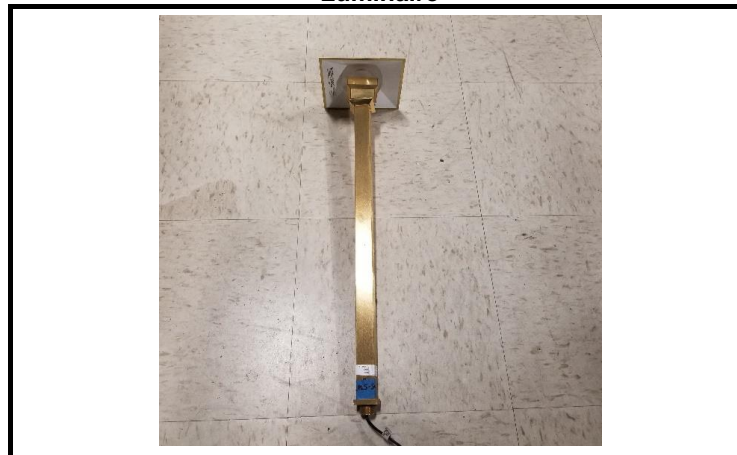
Alexa Lambert, Project Handler

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 copper stem with 5" pyramid shaped shade and glass lens  
**Lamp:** One (1) Cree XP-L High Density LED  
**Mounting:** Bollard  
**Ballast/Driver:** PROPRIETARY

**Luminaire**



**Luminaire Characteristics**

Luminous Length: 5.00 in.  
Luminous Width: 5.000 in.

**Summary of Results**

Roadway Classification: Type VS, Very Short  
Cutoff Classification: Semicutoff  
BUG Rating: B0 U0 G0

**Test Conditions**

Test Temperature: 25.6 °C  
Voltage: 12.10 VAC  
Current: 0.4728 A  
Power: 5.708 W  
Power Factor: 0.998  
Frequency: 60 Hz  
Current THD: 4.65 %

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
25.6 °C	12.10 VAC	0.4728 A	5.708 W	0.998	60 Hz	4.65 %

### Summary of Results

#### Spacing Criteria

0-180: 1.29

90-270: 1.30

#### Total Lumen Output:

224.8 Lumens

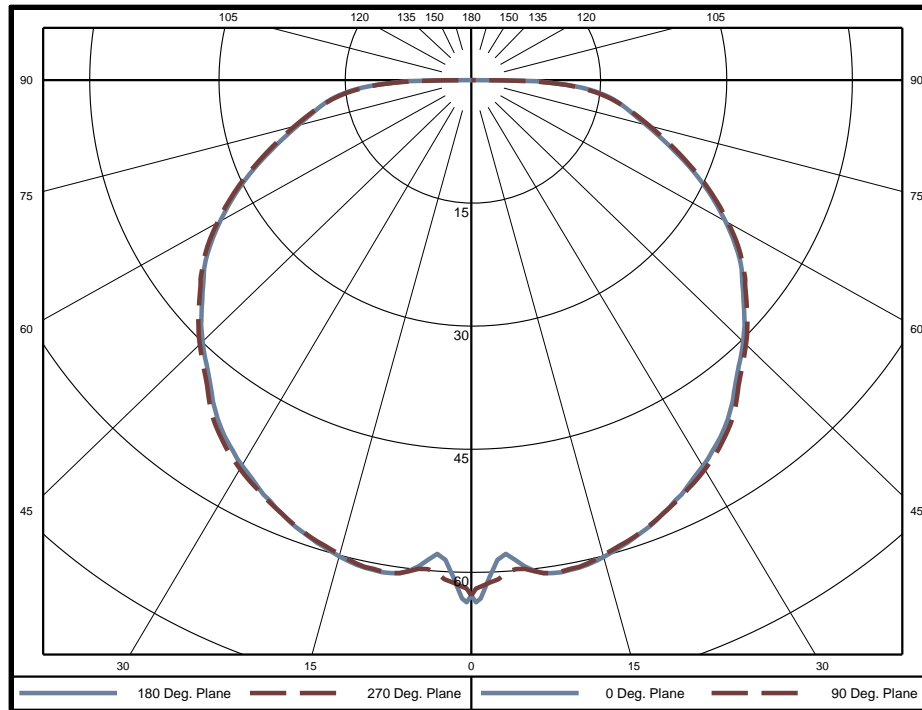
#### Luminaire Efficacy:

39.4 lm/w

#### Maximum Candela:

64 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	1.43	0.6%	60-65	16.37	7.3%	120-125	0	0.0%
5-10	4.29	1.9%	65-70	15.16	6.7%	125-130	0	0.0%
10-15	7.12	3.2%	70-75	13.72	6.1%	130-135	0	0.0%
15-20	9.67	4.3%	75-80	12.28	5.5%	135-140	0	0.0%
20-25	11.92	5.3%	80-85	10.37	4.6%	140-145	0	0.0%
25-30	13.89	6.2%	85-90	6.07	2.7%	145-150	0	0.0%
30-35	15.58	6.9%	90-95	0	0.0%	150-155	0	0.0%
35-40	16.74	7.4%	95-100	0	0.0%	155-160	0	0.0%
40-45	17.43	7.8%	100-105	0	0.0%	160-165	0	0.0%
45-50	17.82	7.9%	105-110	0	0.0%	165-170	0	0.0%
50-55	17.71	7.9%	110-115	0	0.0%	170-175	0	0.0%
55-60	17.27	7.7%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	81	35.9%
0-60	151	67.1%
0-90	225	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	62.84	62.84	62.84	62.84	62.84	62.84	62.84	62.84	62.84	62.84	62.84	62.84	62.84	62.84	62.84
	5	58.68	58.53	58.50	59.81	59.83	59.81	58.50	58.53	58.68	58.53	58.50	59.81	59.83	59.81	58.50
	10	60.91	60.78	59.37	60.10	60.82	60.10	59.37	60.78	60.91	60.78	59.37	60.10	60.82	60.10	59.37
	15	60.15	60.02	58.94	59.12	59.89	59.12	58.94	60.02	60.15	60.02	58.94	59.12	59.89	59.12	58.94
	20	58.59	58.32	57.14	57.38	58.49	57.38	57.14	58.32	58.59	58.32	57.14	57.38	58.49	57.38	57.14
	25	56.55	56.29	54.73	55.57	56.70	55.57	54.73	56.29	56.55	56.29	54.73	55.57	56.70	55.57	54.73
	30	54.31	54.28	53.36	53.78	54.75	53.78	53.36	54.28	54.31	54.28	53.36	53.78	54.75	53.78	53.36
	35	51.74	51.86	51.76	51.48	52.27	51.48	51.76	51.86	51.74	51.86	51.76	51.48	52.27	51.48	51.76
	40	48.20	48.67	48.62	48.35	48.66	48.35	48.62	48.67	48.20	48.67	48.62	48.35	48.66	48.35	48.62
	45	45.06	46.02	46.01	45.74	45.48	45.74	46.01	46.02	45.06	46.02	46.01	45.74	45.48	45.74	46.01
	50	41.65	42.80	42.34	42.54	42.06	42.54	42.34	42.80	41.65	42.80	42.34	42.54	42.06	42.54	42.34
	55	38.48	39.33	39.43	39.10	38.70	39.10	39.43	39.33	38.48	39.33	39.43	39.10	38.70	39.10	39.43
	60	34.39	35.51	36.57	35.40	34.71	35.40	36.57	35.51	34.39	35.51	36.57	35.40	34.71	35.40	36.57
	65	30.01	31.73	33.84	31.74	30.32	31.74	33.84	31.73	30.01	31.73	33.84	31.74	30.32	31.74	33.84
	70	25.38	27.63	31.26	27.69	25.76	27.69	31.26	27.63	25.38	27.63	31.26	27.69	25.76	27.69	31.26
	75	21.27	23.72	29.15	23.83	21.65	23.83	29.15	23.72	21.27	23.72	29.15	23.83	21.65	23.83	29.15
	80	18.07	20.24	27.00	20.21	18.02	20.21	27.00	20.24	18.07	20.24	27.00	20.21	18.02	20.21	27.00
	85	14.11	15.30	20.05	15.02	13.71	15.02	20.05	15.30	14.11	15.30	20.05	15.02	13.71	15.02	20.05
	90	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
	95	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
	100	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
	105	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
	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/m<sup>2</sup>)**  
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	3896	3896
	45	3951	3988
	55	4159	4183
	65	4402	4449
	75	5096	5186
	85	10040	9751



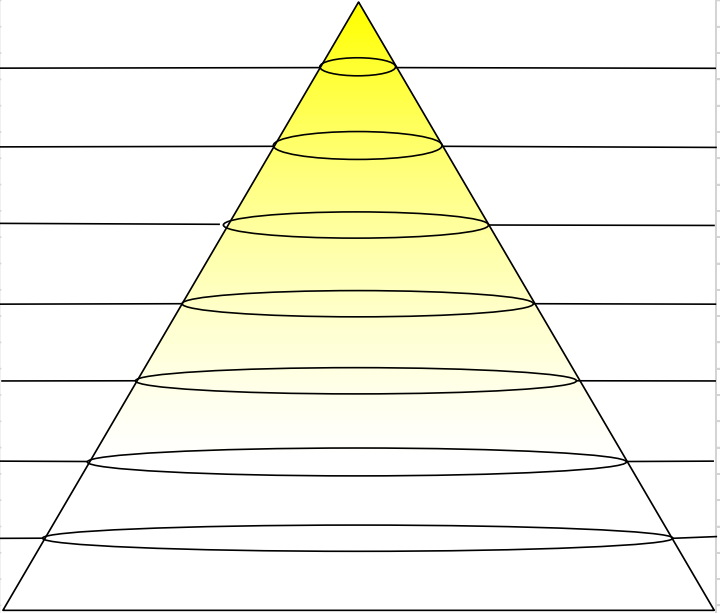
### Utilization of Lumens - Zonal Cavity Method

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	268	268	268	268	261	261	261	261	250	250	250	239	239	239	229	229	229	225
1	237	224	211	200	231	218	207	197	208	199	190	199	192	184	191	185	179	174
2	213	191	172	157	207	186	169	155	178	164	151	170	158	148	163	153	144	139
3	192	165	144	127	186	161	142	126	154	138	124	148	134	121	142	130	119	114
4	175	145	123	106	170	142	121	105	136	118	104	130	115	102	125	112	101	95
5	161	129	106	90	155	126	105	89	121	103	88	116	100	87	112	98	86	81
6	148	115	93	78	143	113	92	77	109	90	77	105	88	76	101	87	75	70
7	137	104	83	68	133	102	82	68	99	81	67	95	79	67	92	77	66	61
8	127	95	74	60	123	93	74	60	90	72	60	87	71	59	84	70	59	54
9	119	87	67	54	115	85	67	54	83	66	54	80	64	53	78	63	53	49
10	111	80	61	49	108	79	61	49	76	60	48	74	59	48	72	58	48	44

#### Beam and Field Information

CIE Type:	Direct
Center Beam Intensity:	62.84 Candela
Central Cone Intensity:	61 Candela
Beam Flux:	170.6 Lumens
Beam Angle (0-180):	126.8 Degrees
Beam Angle (90-270):	127.5 Degrees
Field Angle (0-180):	178.3 Degrees
Field Angle (90-270):	178.1 Degrees

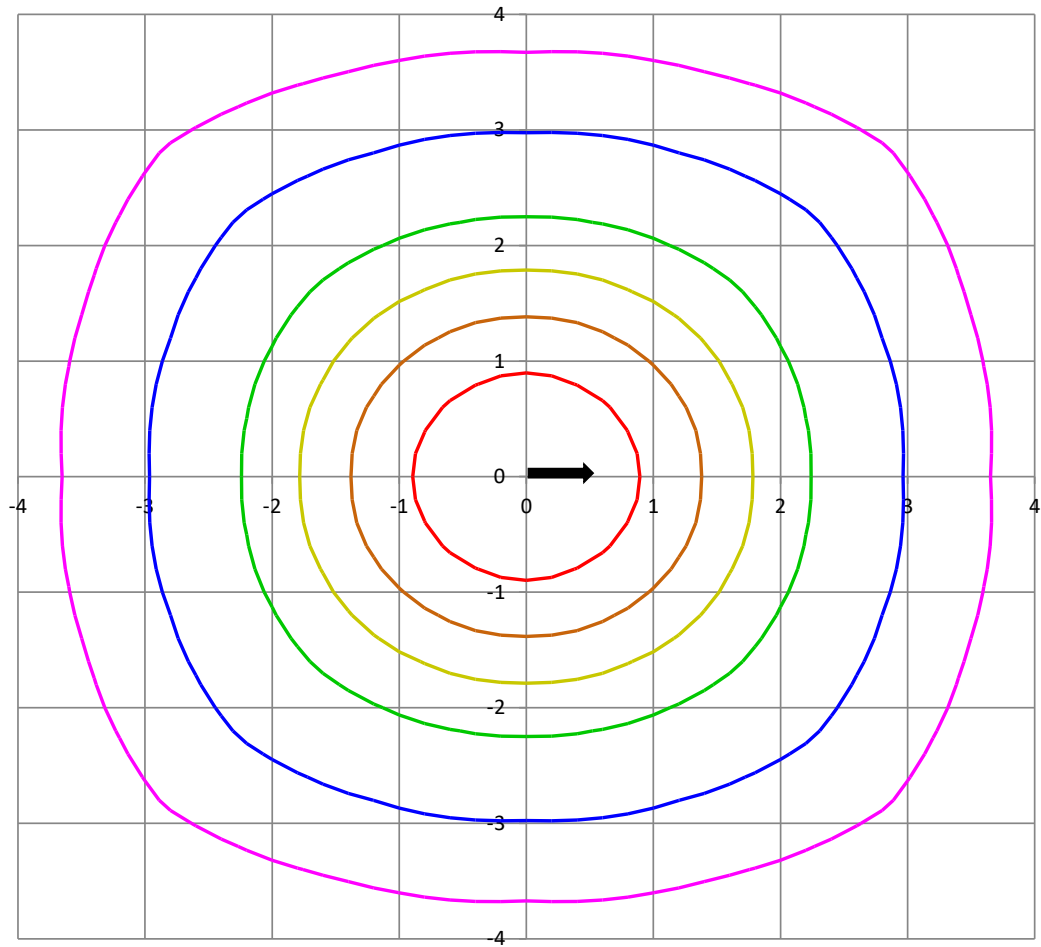
#### Cone of Light Tabulation

Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		3.93	5.15
6.00		1.75	7.72
8.00		0.982	10.3
10.0		0.628	12.9
12.0		0.436	15.4
14.0		0.321	18.0
16.0		0.245	20.6

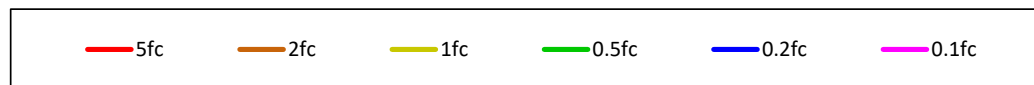


## ISOFootcandle Plot

Mounting Height - 2 Feet



Grid Lines in Units of Mounting Height





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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	24.2	10.8%
FM	(30-60)	51.3	22.9%
FH	(60-80)	28.7	12.8%
FVH	(80-90)	7.8	3.5%
BL	(0-30)	24.2	10.8%
BM	(30-60)	51.3	22.9%
BH	(60-80)	28.7	12.8%
BVH	(80-90)	7.8	3.5%
UL	(90-100)	0.0	0.0%
UH	(100-180)	0.0	0.0%
Total		223.9	100.0%
<b>BUG Rating</b>	<b>B0 U0 G0</b>		