



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**

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

**Catalog Number**  
**LMPL-2-30 (3000K)**

Order Number

13001850

Test Number

13001850.03A

Revision of Test Number 13001850.03 on:

2021-06-18

Test Date

2019-08-23

Prepared By

Derek Smarr, Technician

Approved By

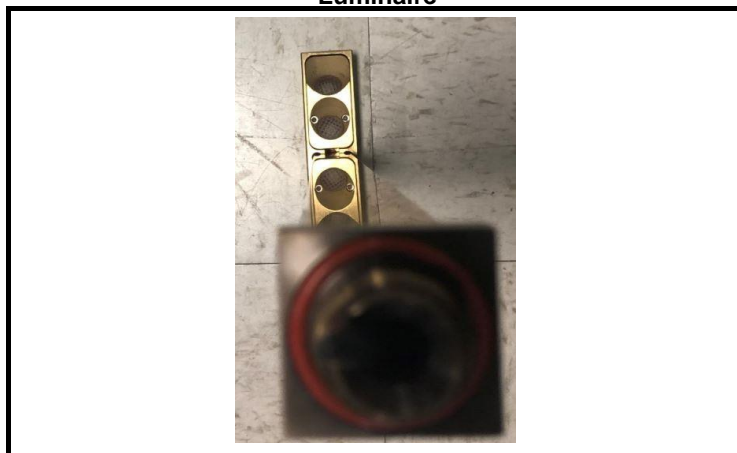
Alexa Lambert, Project Handler

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:** Square brass stem with "L" shaped rectangular arm  
**Lamp:** Two (2) Cree XP-L 3000K LEDs With two (2) acrylic optics  
**Mounting:** Ground recessed  
**Ballast/Driver:** Proprietary

**Luminaire**



**Luminaire Characteristics**

Luminous Length: 2.50 in.  
Luminous Width: 1.250 in.

**Summary of Results**

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

**Test Conditions**

Test Temperature: 24.1 °C  
Voltage: 12.00 VAC  
Current: 0.3335 A  
Power: 3.893 W  
Power Factor: 0.973  
Frequency: 60 Hz  
Current THD: 13.9 %

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
24.1 °C	12.00 VAC	0.3335 A	3.893 W	0.973	60 Hz	13.9 %

### Summary of Results

#### Spacing Criteria

0-180: 1.84  
90-270: 1.22

#### Total Lumen Output:

162.3 Lumens

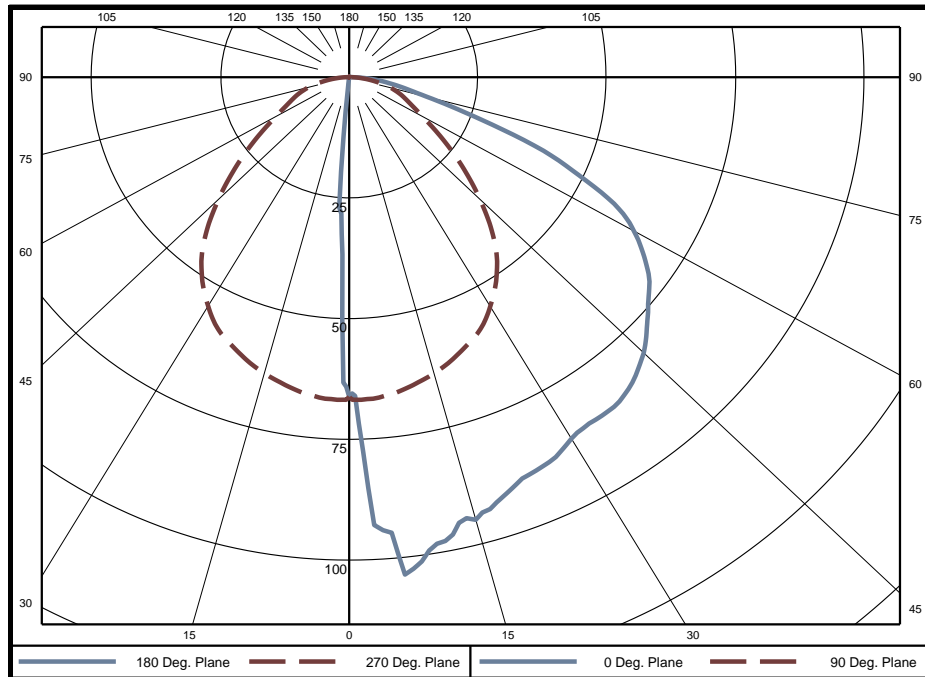
#### Luminaire Efficacy:

41.7 lm/w

#### Maximum Candela:

103 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	1.50	0.9%	60-65	10.90	6.7%	120-125	0	0.0%
5-10	4.31	2.7%	65-70	8.04	5.0%	125-130	0	0.0%
10-15	6.96	4.3%	70-75	5.08	3.1%	130-135	0	0.0%
15-20	9.39	5.8%	75-80	3.05	1.9%	135-140	0	0.0%
20-25	11.47	7.1%	80-85	1.61	1.0%	140-145	0	0.0%
25-30	13.11	8.1%	85-90	0.35	0.2%	145-150	0	0.0%
30-35	14.20	8.7%	90-95	0	0.0%	150-155	0	0.0%
35-40	14.98	9.2%	95-100	0	0.0%	155-160	0	0.0%
40-45	15.24	9.4%	100-105	0	0.0%	160-165	0	0.0%
45-50	14.98	9.2%	105-110	0	0.0%	165-170	0	0.0%
50-55	14.19	8.7%	110-115	0	0.0%	170-175	0	0.0%
55-60	12.90	7.9%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	76	46.8%
0-60	133	82.1%
0-90	162	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	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2
	5	93.7	89.7	73.5	67.1	65.6	63.8	55.5	28.2	11.3	28.2	55.5	63.8	65.6	67.1	73.5
	10	97.1	85.6	72.9	67.3	64.3	61.1	53.5	22.6	0.0	22.6	53.5	61.1	64.3	67.3	72.9
	15	93.9	84.6	73.5	67.0	62.5	58.2	50.1	20.9	0.0	20.9	50.1	58.2	62.5	67.0	73.5
	20	90.1	84.7	74.0	66.1	60.2	54.4	45.4	17.6	0.0	17.6	45.4	54.4	60.2	66.1	74.0
	25	87.9	84.1	73.7	64.9	57.7	49.6	39.4	14.6	0.0	14.6	39.4	49.6	57.7	64.9	73.7
	30	85.4	81.8	71.5	62.5	53.8	43.2	32.5	11.9	0.0	11.9	32.5	43.2	53.8	62.5	71.5
	35	84.5	79.7	69.4	60.4	48.9	36.3	26.5	9.7	0.0	9.7	26.5	36.3	48.9	60.4	69.4
	40	83.3	77.4	67.3	57.5	42.7	29.4	21.5	7.4	0.0	7.4	21.5	29.4	42.7	57.5	67.3
	45	79.8	74.5	64.7	53.1	35.0	23.4	17.5	5.8	0.0	5.8	17.5	23.4	35.0	53.1	64.7
	50	74.7	70.4	60.4	45.6	27.5	18.6	14.4	5.0	0.0	5.0	14.4	18.6	27.5	45.6	60.4
	55	69.9	65.2	54.5	36.0	20.9	15.1	12.1	4.5	0.0	4.5	12.1	15.1	20.9	36.0	54.5
	60	62.8	58.2	44.7	26.6	15.6	12.5	9.8	3.9	0.0	3.9	9.8	12.5	15.6	26.6	44.7
	65	49.8	45.3	32.5	18.1	12.1	10.1	7.4	3.2	0.0	3.2	7.4	10.1	12.1	18.1	32.5
	70	30.6	27.7	19.4	12.6	9.8	7.7	5.1	2.7	0.0	2.7	5.1	7.7	9.8	12.6	19.4
	75	14.5	13.0	11.9	9.1	7.3	4.9	3.2	2.2	0.0	2.2	3.2	4.9	7.3	9.1	11.9
	80	7.9	7.0	7.5	6.1	4.2	2.5	1.7	1.0	0.0	1.0	1.7	2.5	4.2	6.1	7.5
	85	3.5	3.1	3.3	3.0	1.6	0.6	0.3	0.0	0.0	0.0	0.3	0.6	1.6	3.0	3.3
	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>)**

Vertical Angle (Degrees)	Horizontal Angle (Degrees)			
		0	45	90
	0	32330	32330	32330
	45	55980	45370	24530
	55	60460	47120	18100
	65	58410	38090	14240
	75	27780	22840	14000
	85	19650	19010	8881



### 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	193	193	193	193	189	189	189	189	180	180	180	173	173	173	166	166	166	162
1	177	170	164	158	173	166	160	155	160	155	150	153	149	146	147	144	141	138
2	162	149	138	129	158	146	136	128	140	132	125	135	128	122	130	124	119	116
3	148	131	118	108	144	129	117	107	124	114	105	119	111	103	115	108	102	98
4	136	116	103	92	132	114	101	91	110	99	90	107	97	89	103	95	88	84
5	125	104	90	79	121	102	89	79	99	87	78	96	85	77	93	84	76	73
6	115	94	80	69	112	92	79	69	89	77	68	87	76	68	84	75	67	64
7	107	85	71	61	104	84	70	61	81	69	61	79	68	60	77	67	60	56
8	99	78	64	55	97	77	64	54	74	63	54	72	62	54	71	61	53	50
9	93	71	58	49	91	70	58	49	69	57	49	67	56	49	65	55	48	45
10	87	66	53	45	85	65	53	45	63	52	44	62	51	44	60	51	44	41

### Beam and Field Information

CIE Type:	Direct
Center Beam Intensity:	65.2 Candela
Central Cone Intensity:	63 Candela
Beam Flux:	125.6 Lumens
Beam Angle (0-180):	71.9 Degrees
Beam Angle (90-270):	93.1 Degrees
Field Angle (0-180):	86.8 Degrees
Field Angle (90-270):	152.7 Degrees

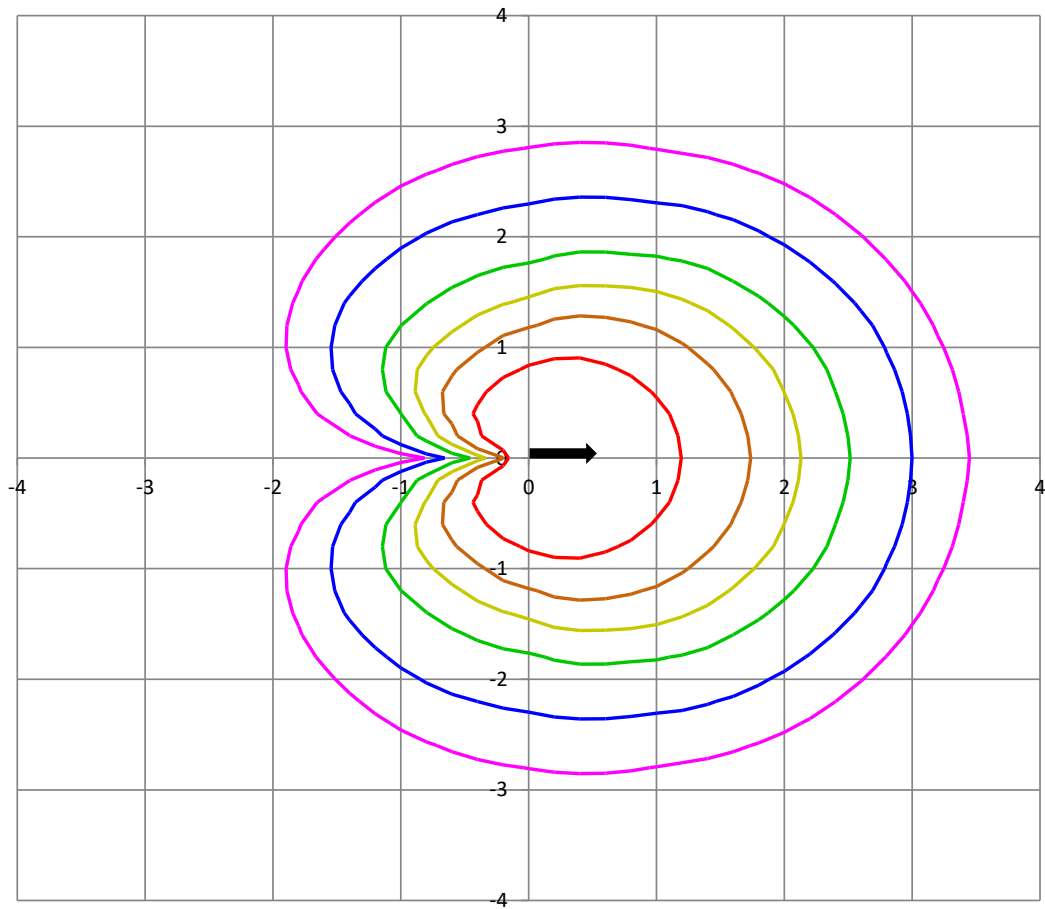
### Cone of Light Tabulation

Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		4.07	4.60
6.00		1.81	6.90
8.00		1.02	9.21
10.0		0.652	11.5
12.0		0.453	13.8
14.0		0.333	16.1
16.0		0.255	18.4

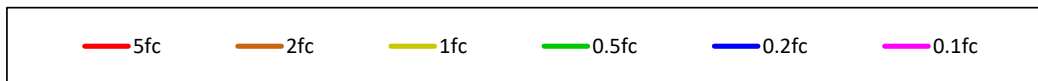


## ISOFootcandle Plot

Mounting Height - 2 Feet

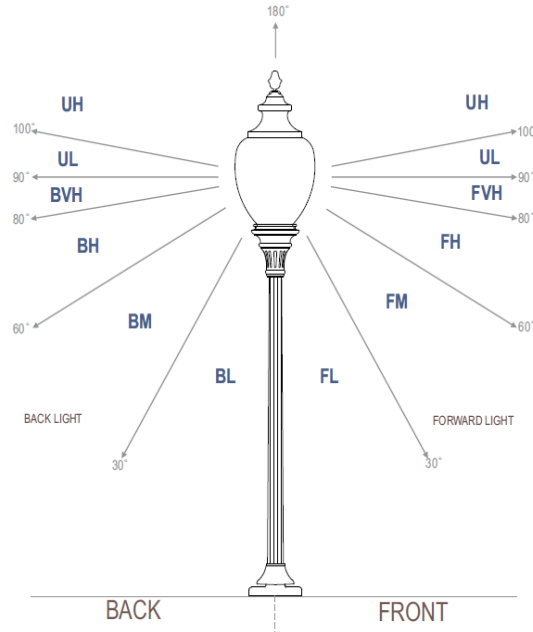


Grid Lines in Units of Mounting Height





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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	31.5	19.5%
FM	(30-60)	68.1	42.2%
FH	(60-80)	21.8	13.5%
FVH	(80-90)	1.6	1.0%
BL	(0-30)	15.0	9.2%
BM	(30-60)	18.1	11.2%
BH	(60-80)	5.2	3.2%
BVH	(80-90)	0.3	0.2%
UL	(90-100)	0.0	0.0%
UH	(100-180)	0.0	0.0%
Total		161.7	100.0%
BUG Rating	B0 U0 G0		



## Attachment A

## Amended Report Documentation

[illegible]