



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-1-30 (3000K)

Order Number

13001850

Test Number

13001850.02A

Revision of Test Number 13001850.02 on:

2021-06-18

Test Date

2019-08-23

Prepared By

Derek Smarr, Technician

Approved By

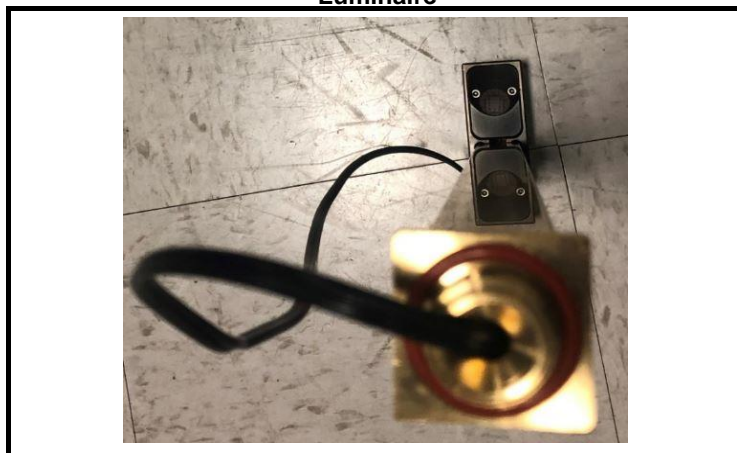
Alexa Lambert, Project Handler

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: One (1) Cree XP-L 3000K LED with one (1) acrylic optic
Mounting: Ground recessed
Ballast/Driver: Proprietary

Luminaire



Luminaire Characteristics

Luminous Length: 1.25 in.
Luminous Width: 1.000 in.

Summary of Results

Roadway Classification: Type I, Very Short
Cutoff Classification: Cutoff
BUG Rating: B0 U1 G0

Test Conditions

Test Temperature: 24.1 °C
Voltage: 12.00 VAC
Current: 0.4408 A
Power: 3.181 W
Power Factor: 0.601
Frequency: 60 Hz
Current THD: 81.5 %

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	0.4408 A	3.181 W	0.601	60 Hz	81.5 %

Summary of Results

Spacing Criteria

0-180: 1.79
90-270: 1.23

Total Lumen Output:

111.1 Lumens

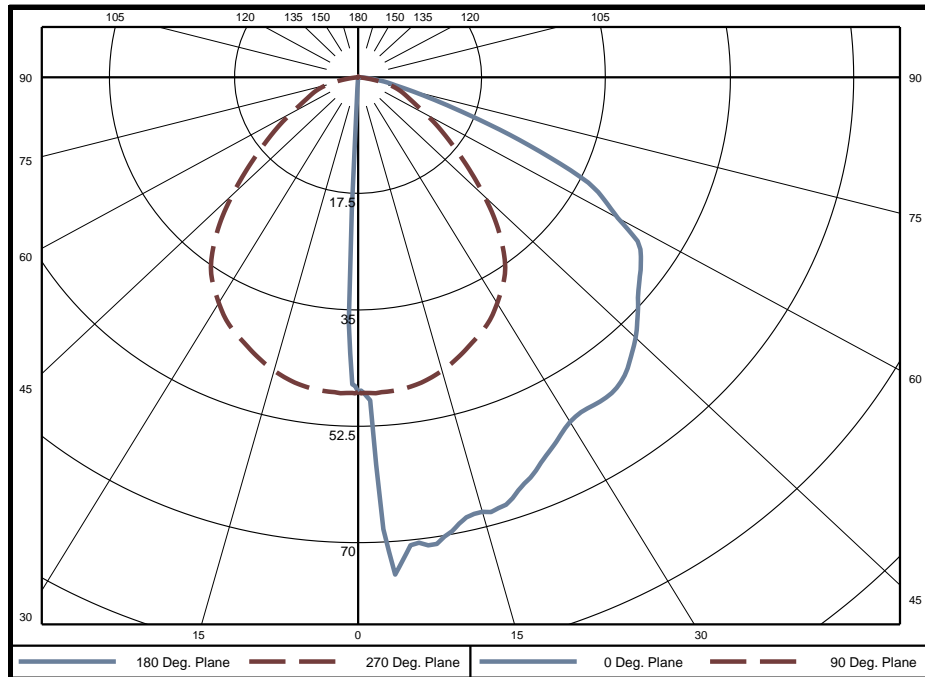
Luminaire Efficacy:

34.9 lm/w

Maximum Candela:

75 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	1.07	1.0%	60-65	7.21	6.5%	120-125	0.01	0.0%
5-10	3.09	2.8%	65-70	4.87	4.4%	125-130	0.01	0.0%
10-15	5.03	4.5%	70-75	2.72	2.4%	130-135	0.01	0.0%
15-20	6.79	6.1%	75-80	1.41	1.3%	135-140	0.01	0.0%
20-25	8.25	7.4%	80-85	0.59	0.5%	140-145	0.01	0.0%
25-30	9.37	8.4%	85-90	0.13	0.1%	145-150	0.01	0.0%
30-35	10.15	9.1%	90-95	0.03	0.0%	150-155	0.01	0.0%
35-40	10.68	9.6%	95-100	0.02	0.0%	155-160	0.01	0.0%
40-45	10.74	9.7%	100-105	0.02	0.0%	160-165	0.01	0.0%
45-50	10.35	9.3%	105-110	0.01	0.0%	165-170	0.01	0.0%
50-55	9.68	8.7%	110-115	0.01	0.0%	170-175	0.00	0.0%
55-60	8.80	7.9%	115-120	0.01	0.0%	175-180	0.00	0.0%

Zone	Lumens	% of Luminaire
0-40	54	49.0%
0-60	94	84.6%
0-90	111	99.8%
90-180	0	0.2%



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	47.35	47.35	47.35	47.35	47.35	47.35	47.35	47.35	47.35	47.35	47.35	47.35	47.35	47.35	47.35
	5	72.84	63.27	53.18	48.67	47.48	46.46	38.45	10.64	0.32	10.64	38.45	46.46	47.48	48.67	53.18
	10	70.16	64.07	52.04	49.18	46.98	45.00	43.13	8.04	0.21	8.04	43.13	45.00	46.98	49.18	52.04
	15	67.67	62.67	53.04	49.12	45.72	42.95	39.94	7.53	0.15	7.53	39.94	42.95	45.72	49.12	53.04
	20	66.13	61.89	53.11	48.16	43.85	40.06	35.52	7.47	0.11	7.47	35.52	40.06	43.85	48.16	53.11
	25	62.79	59.88	52.24	46.96	41.89	36.55	30.33	7.16	0.09	7.16	30.33	36.55	41.89	46.96	52.24
	30	59.85	57.76	50.36	45.29	39.27	31.92	24.46	6.51	0.05	6.51	24.46	31.92	39.27	45.29	50.36
	35	59.55	56.71	48.85	43.58	36.13	26.79	19.17	5.75	0.04	5.75	19.17	26.79	36.13	43.58	48.85
	40	58.54	55.17	47.55	40.93	31.20	21.16	14.64	5.04	0.02	5.04	14.64	21.16	31.20	40.93	47.55
	45	55.40	52.31	45.81	37.00	25.12	15.83	10.93	4.30	0.02	4.30	10.93	15.83	25.12	37.00	45.81
	50	51.57	49.01	43.29	31.23	19.32	11.51	8.16	2.71	0.02	2.71	8.16	11.51	19.32	31.23	43.29
	55	48.72	46.11	38.74	24.33	14.75	8.46	6.27	2.38	0.01	2.38	6.27	8.46	14.75	24.33	38.74
	60	42.33	42.51	31.02	17.29	11.00	6.53	4.84	2.53	0.00	2.53	4.84	6.53	11.00	17.29	31.02
	65	33.09	33.35	19.98	10.81	8.32	5.39	3.55	1.62	0.00	1.62	3.55	5.39	8.32	10.81	19.98
	70	16.86	17.21	9.77	7.00	6.63	4.51	2.27	0.79	0.00	0.79	2.27	4.51	6.63	7.00	9.77
	75	7.51	6.98	4.61	4.34	4.77	3.42	1.18	0.38	0.00	0.38	1.18	3.42	4.77	4.34	4.61
	80	3.77	3.17	2.28	1.98	2.27	1.94	0.48	0.20	0.00	0.20	0.48	1.94	2.27	1.98	2.28
	85	1.24	1.05	0.70	0.46	0.41	0.62	0.17	0.08	0.00	0.08	0.17	0.62	0.41	0.46	0.70
	90	0.29	0.20	0.10	0.05	0.01	0.02	0.02	0.00	0.00	0.00	0.02	0.02	0.01	0.05	0.10
	95	0.22	0.16	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.08
	100	0.17	0.12	0.07	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.07
	105	0.13	0.09	0.06	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.06
	110	0.10	0.07	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.05
	115	0.06	0.05	0.04	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.04
	120	0.04	0.04	0.03	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.03
	125	0.03	0.03	0.03	0.01	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.03
	130	0.01	0.02	0.03	0.02	0.01	0.01	0.01	0.02	0.01	0.02	0.01	0.01	0.01	0.02	0.03
	135	0.01	0.01	0.03	0.02	0.01	0.02	0.03	0.03	0.02	0.03	0.03	0.02	0.01	0.02	0.03
	140	0.01	0.01	0.03	0.02	0.02	0.03	0.04	0.04	0.02	0.04	0.04	0.03	0.02	0.02	0.03
	145	0.01	0.01	0.03	0.03	0.03	0.03	0.04	0.05	0.02	0.05	0.04	0.03	0.03	0.03	0.03
	150	0.02	0.02	0.03	0.03	0.03	0.04	0.05	0.05	0.03	0.05	0.05	0.04	0.03	0.03	0.03
	155	0.03	0.03	0.03	0.03	0.04	0.04	0.05	0.06	0.03	0.06	0.05	0.04	0.04	0.03	0.03
	160	0.04	0.04	0.04	0.04	0.04	0.05	0.06	0.06	0.04	0.06	0.06	0.05	0.04	0.04	0.04
	165	0.06	0.06	0.05	0.05	0.05	0.05	0.06	0.06	0.04	0.06	0.06	0.05	0.05	0.05	0.05
	170	0.04	0.08	0.07	0.07	0.06	0.05	0.06	0.06	0.04	0.06	0.06	0.05	0.06	0.07	0.07
	175	0.04	0.04	0.04	0.05	0.06	0.05	0.06	0.06	0.05	0.06	0.06	0.05	0.06	0.05	0.04
	180	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04

Average Luminance (cd/m²)

Vertical Angle (Degrees)	Horizontal Angle (Degrees)			
	0	45	90	
	0	58710	58710	58710
	45	97160	80340	44050
	55	105300	83750	31880
	65	97090	58640	24400
	75	36000	22070	22860
	85	17630	9977	5883



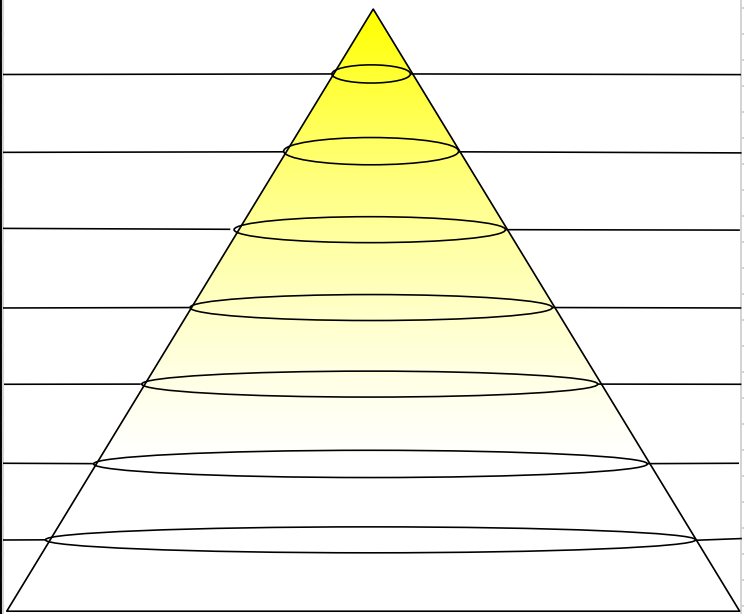
Utilization of Lumens - Zonal Cavity Method

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	132	132	132	132	129	129	129	129	123	123	123	118	118	118	113	113	113	111
1	122	117	113	109	119	115	111	107	110	107	104	106	103	101	102	100	98	96
2	112	103	96	90	109	101	95	89	97	92	87	94	89	85	90	87	83	81
3	102	91	83	76	100	90	82	75	86	79	74	83	77	73	80	76	71	69
4	94	81	72	65	91	80	71	64	77	69	63	74	68	63	72	66	62	59
5	86	73	63	56	84	71	62	56	69	61	55	67	60	55	65	59	54	52
6	80	66	56	49	78	65	55	49	63	54	48	61	54	48	59	53	48	45
7	74	60	50	43	72	59	50	43	57	49	43	55	48	43	54	47	42	40
8	69	54	45	39	67	54	45	39	52	44	38	51	44	38	49	43	38	36
9	65	50	41	35	63	49	41	35	48	40	35	47	40	35	46	39	34	32
10	61	46	38	32	59	46	37	32	44	37	32	43	36	31	42	36	31	29

Beam and Field Information

CIE Type:	Direct
Center Beam Intensity:	47.35 Candela
Central Cone Intensity:	45 Candela
Beam Flux:	88.5 Lumens
Beam Angle (0-180):	70.2 Degrees
Beam Angle (90-270):	92.4 Degrees
Field Angle (0-180):	81.2 Degrees
Field Angle (90-270):	150.2 Degrees

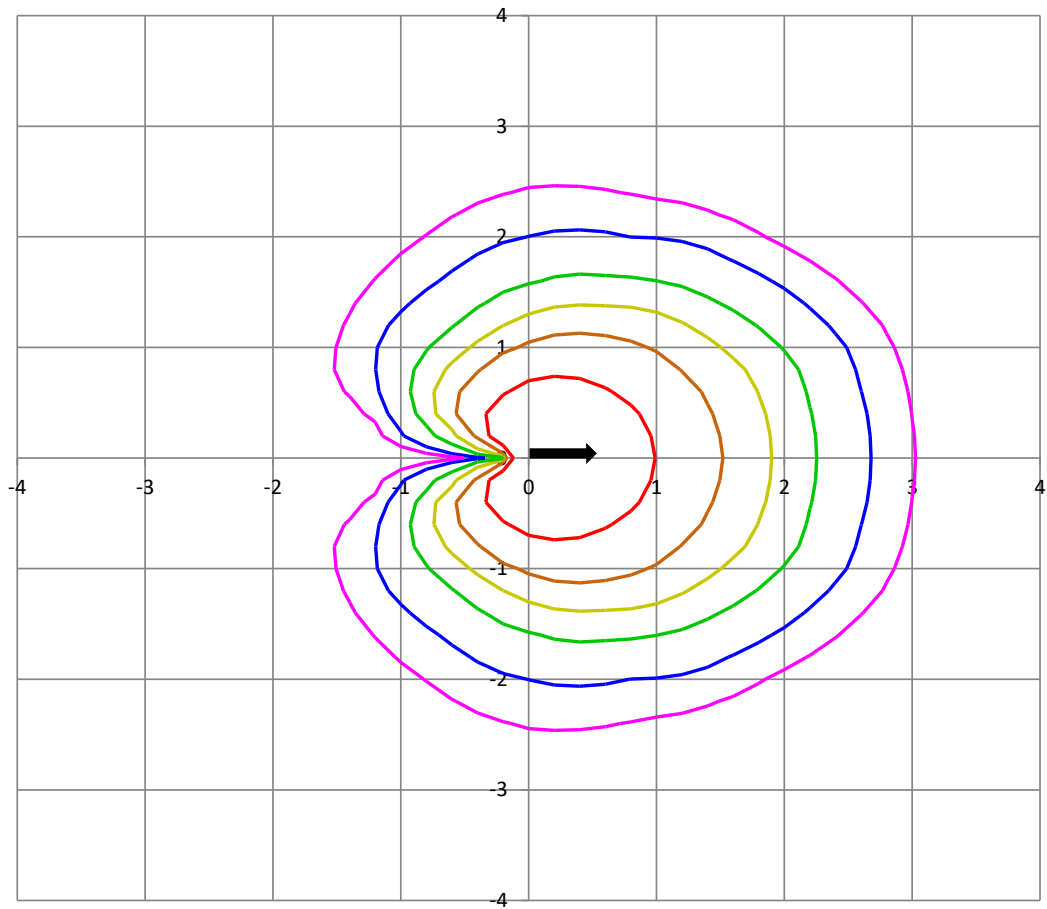
Cone of Light Tabulation

Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		2.96	4.53
6.00		1.32	6.80
8.00		0.740	9.07
10.0		0.473	11.3
12.0		0.329	13.6
14.0		0.242	15.9
16.0		0.185	18.1



ISOFootcandle Plot

Mounting Height - 2 Feet



Grid Lines in Units of Mounting Height

5fc

2fc

1fc

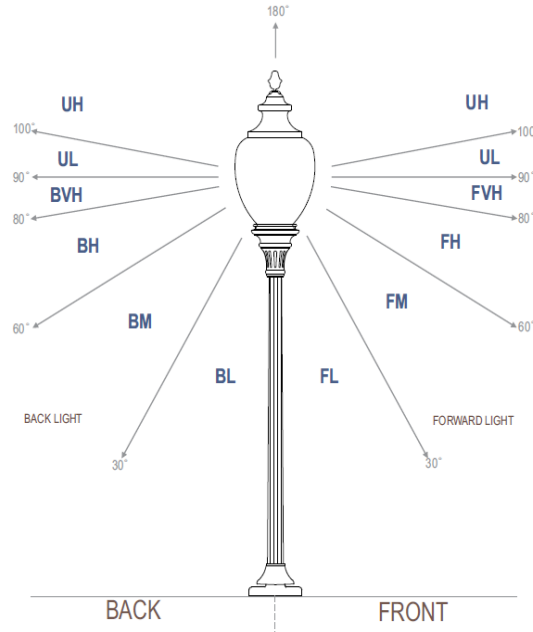
0.5fc

0.2fc

0.1fc



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	22.7	20.4%
FM	(30-60)	48.1	43.2%
FH	(60-80)	13.4	12.1%
FVH	(80-90)	0.5	0.5%
BL	(0-30)	11.1	10.0%
BM	(30-60)	12.3	11.0%
BH	(60-80)	2.7	2.5%
BVH	(80-90)	0.2	0.2%
UL	(90-100)	0.1	0.0%
UH	(100-180)	0.1	0.1%
Total		111.2	100.0%
BUG Rating	B0 U1 G0		



Attachment A

Amended Report Documentation

[illegible]