



UL Verification Services Inc.  
7036 Snowdrift Road  
Allentown, PA 18106  
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## 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**  
**LPL1-30 (3000K)**

Order Number  
14012719  
Test Number  
14012719.04A

Revision of Test Number 14012719.04 on:

2021-11-02  
Test Date

2021-09-22

Prepared By

Cordaryl Cousar, Technician

Approved By

Alexa Lambert, Project Handler

The results contained in this report pertain only to the tested sample.  
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**Luminaire Description:** Cylindrical copper tube w/ brass disc top  
**Lamp:** One white LED  
**Mounting:** Bollard  
**Ballast/Driver:** PROPRIETARY

#### Luminaire



#### Luminaire Characteristics

Luminous Diameter: 2.25 in.

#### Summary of Results

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

#### Test Conditions

Test Temperature: 25.8 °C  
Voltage: 11.97 VAC  
Current: 0.4390 A  
Power: 3.090 W  
Power Factor: 0.588  
Frequency: 60 Hz  
Current THD: 88.5 %

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
25.8 °C	11.97 VAC	0.4390 A	3.090 W	0.588	60 Hz	88.5 %

### Summary of Results

#### Spacing Criteria

0-180: 1.28

90-270: 1.25

Total Lumen Output:

179.4 Lumens

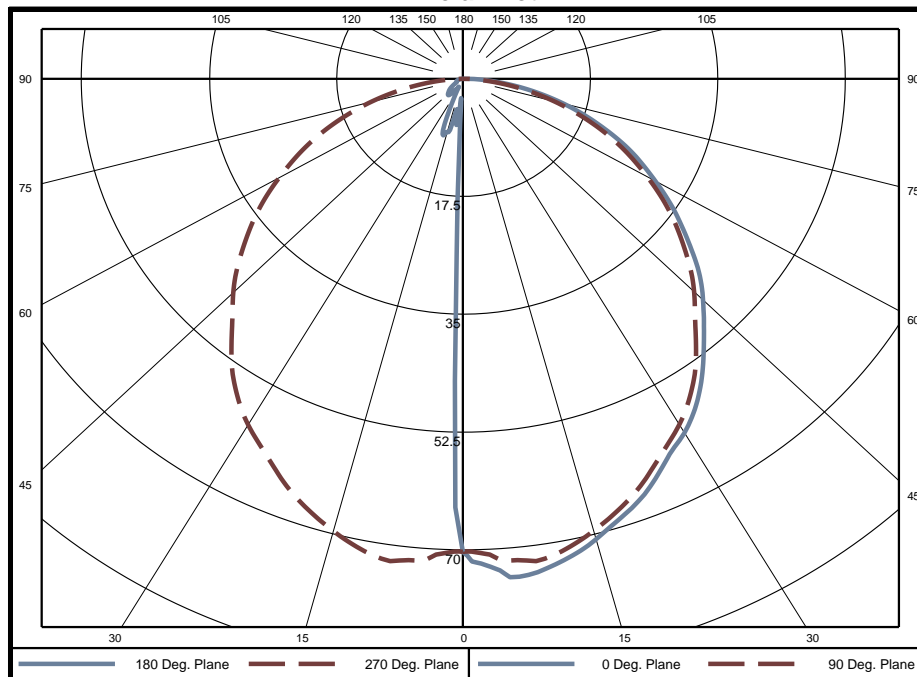
Luminaire Efficacy:

58.1 lm/w

Maximum Candela:

74 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	1.46	0.8%	60-65	11.70	6.5%	120-125	0	0.0%
5-10	4.48	2.5%	65-70	9.74	5.4%	125-130	0	0.0%
10-15	7.53	4.2%	70-75	7.47	4.2%	130-135	0	0.0%
15-20	10.27	5.7%	75-80	5.06	2.8%	135-140	0	0.0%
20-25	12.48	7.0%	80-85	2.69	1.5%	140-145	0	0.0%
25-30	14.17	7.9%	85-90	0.81	0.5%	145-150	0	0.0%
30-35	15.51	8.6%	90-95	0	0.0%	150-155	0	0.0%
35-40	16.10	9.0%	95-100	0	0.0%	155-160	0	0.0%
40-45	16.07	9.0%	100-105	0	0.0%	160-165	0	0.0%
45-50	15.69	8.7%	105-110	0	0.0%	165-170	0	0.0%
50-55	14.75	8.2%	110-115	0	0.0%	170-175	0	0.0%
55-60	13.40	7.5%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	82	45.7%
0-60	142	79.1%
0-90	179	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	70.30	70.30	70.30	70.30	70.30	70.30	70.30	70.30	70.30	70.30	70.30	70.30	70.30	70.30	70.30
	5	74.35	73.70	73.00	72.39	71.86	69.57	44.32	20.80	2.88	20.80	44.32	69.57	71.86	72.39	73.00
	10	73.28	72.83	72.56	72.29	71.90	70.70	67.40	46.61	4.99	46.61	67.40	70.70	71.90	72.29	72.56
	15	70.81	70.42	70.14	69.82	69.53	69.08	67.12	48.68	8.21	48.68	67.12	69.08	69.53	69.82	70.14
	20	67.88	67.60	67.27	66.90	66.61	66.32	64.77	52.13	8.79	52.13	64.77	66.32	66.61	66.90	67.27
	25	64.21	64.01	63.66	63.21	62.91	62.69	61.35	49.99	2.74	49.99	61.35	62.69	62.91	63.21	63.66
	30	60.83	60.65	60.29	59.79	59.45	59.24	58.02	47.52	2.09	47.52	58.02	59.24	59.45	59.79	60.29
	35	56.69	56.44	56.11	55.62	55.22	54.94	53.70	43.96	2.01	43.96	53.70	54.94	55.22	55.62	56.11
	40	51.52	51.02	50.77	50.30	49.83	49.46	48.22	39.20	3.14	39.20	48.22	49.46	49.83	50.30	50.77
	45	46.68	46.10	45.94	45.53	45.00	44.56	43.23	34.36	3.09	34.36	43.23	44.56	45.00	45.53	45.94
	50	41.62	41.02	40.91	40.53	39.99	39.53	38.14	28.77	2.62	28.77	38.14	39.53	39.99	40.53	40.91
	55	36.10	35.79	35.74	35.39	34.86	34.42	33.08	23.80	1.91	23.80	33.08	34.42	34.86	35.39	35.74
	60	30.63	30.21	30.19	29.89	29.39	28.98	27.76	19.53	1.17	19.53	27.76	28.98	29.39	29.89	30.21
	65	25.48	24.83	24.81	24.55	24.09	23.72	22.67	15.77	0.98	15.77	22.67	23.72	24.09	24.55	24.81
	70	19.86	19.24	19.20	18.97	18.59	18.23	17.38	12.02	0.99	12.02	17.38	18.23	18.59	18.97	19.20
	75	14.39	13.69	13.62	13.43	13.09	12.80	12.16	8.40	0.79	8.40	12.16	12.80	13.09	13.43	13.62
	80	8.97	8.36	8.28	8.08	7.81	7.58	7.16	4.94	0.47	4.94	7.16	7.58	7.81	8.08	8.28
	85	4.19	3.68	3.57	3.39	3.17	2.97	2.72	1.87	0.16	1.87	2.72	2.97	3.17	3.39	3.57
	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)

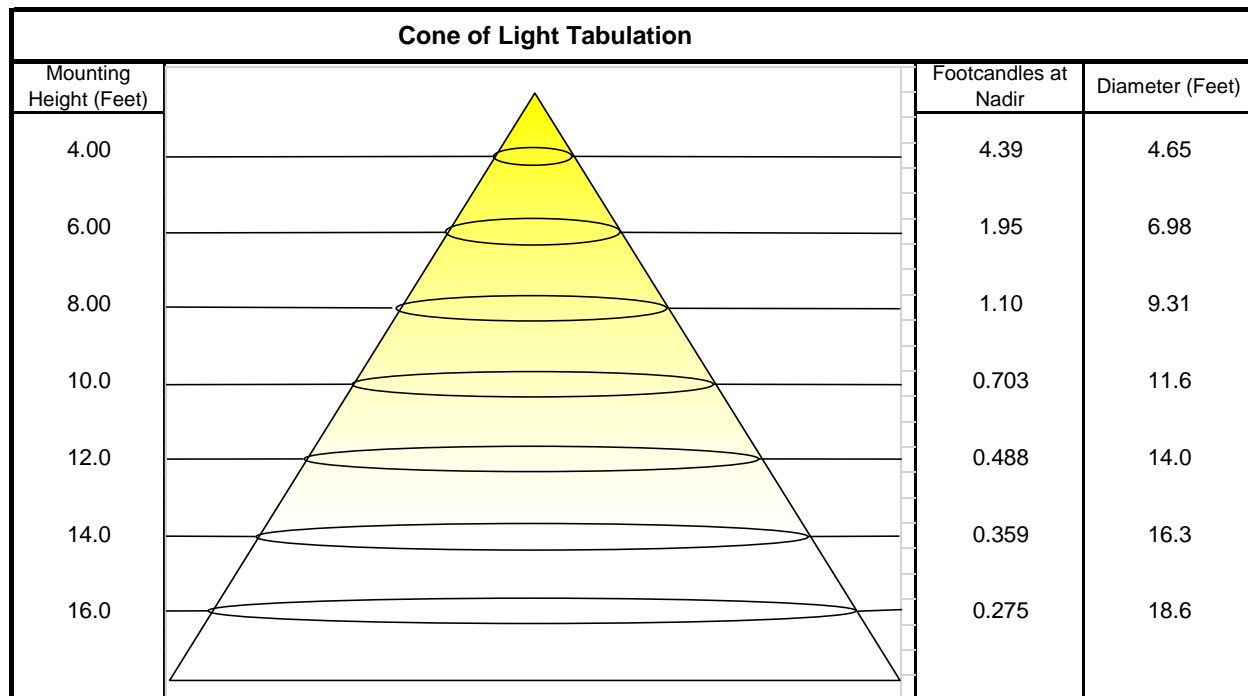
Vertical Angle (Degrees)	0	45	90
	0	27400	27400
	45	25740	24810
	55	24540	23690
	65	23500	22220
	75	21680	19720
	85	18730	14170



### Utilization of Lumens - Zonal Cavity Method

Effective Floor Cavity Reflectance 20%																	
Ceiling Cavity Reflectance	80				70				50			30			10		
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																
0	214	214	214	214	209	209	209	209	199	199	199	191	191	191	183	183	183
1	195	186	179	172	190	182	175	169	175	169	164	168	163	159	161	157	154
2	177	163	150	140	173	159	148	138	153	143	135	147	139	132	141	135	129
3	162	143	128	117	157	140	126	115	135	123	113	130	120	111	125	117	109
4	148	127	111	99	144	124	110	98	120	107	97	116	104	95	112	102	94
5	136	113	97	85	133	111	96	85	107	94	84	104	92	83	101	90	82
6	126	102	86	74	122	100	85	74	97	84	73	94	82	73	91	80	72
7	117	93	77	66	114	91	76	66	88	75	65	86	74	65	83	72	64
8	109	84	69	59	106	83	69	59	81	68	58	79	67	58	77	66	57
9	102	78	63	53	99	76	62	53	74	62	52	72	61	52	71	60	52
10	95	72	57	48	93	71	57	48	69	56	48	67	56	47	66	55	47

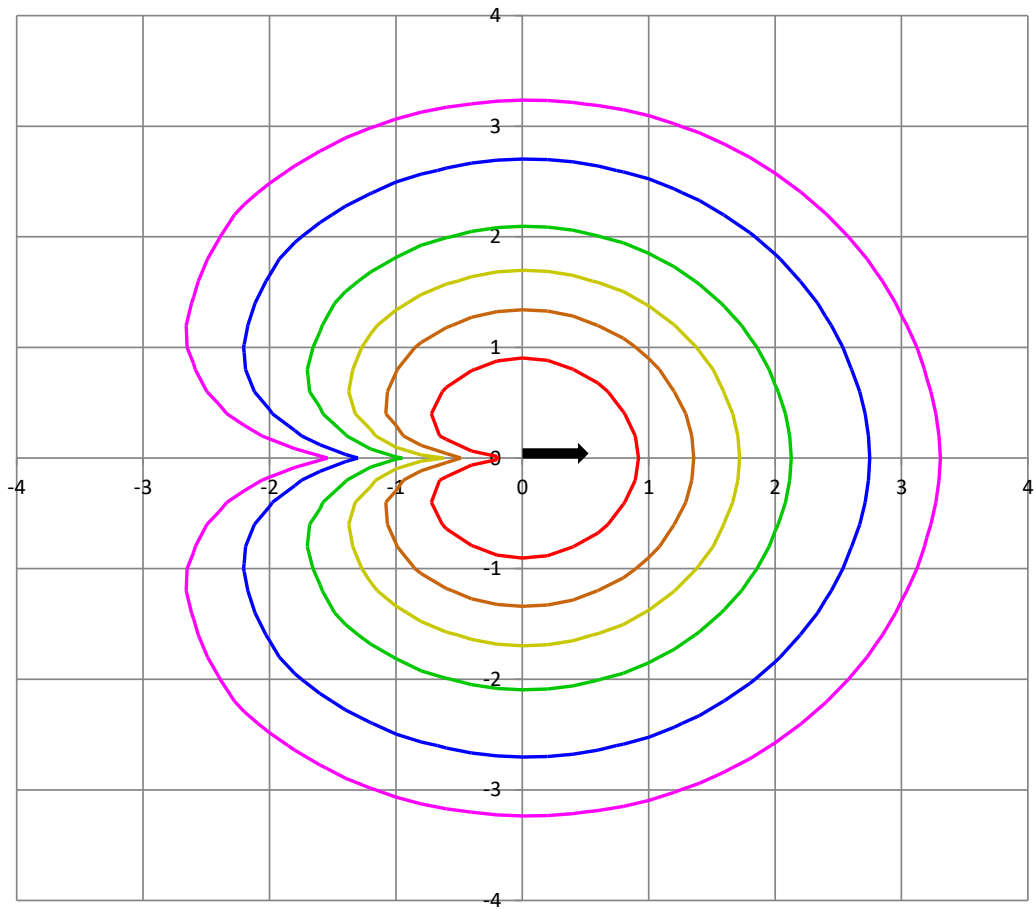
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	70.30 Candela
Central Cone Intensity:	64 Candela
Beam Flux:	124.0 Lumens
Beam Angle (0-180):	57.7 Degrees
Beam Angle (90-270):	109.4 Degrees
Field Angle (0-180):	104.0 Degrees
Field Angle (90-270):	161.6 Degrees



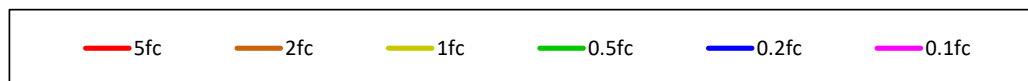


## ISOFootcandle Plot

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)	28.1	15.7%
FM	(30-60)	51.0	28.6%
FH	(60-80)	19.3	10.8%
FVH	(80-90)	2.1	1.2%
BL	(0-30)	22.0	12.3%
BM	(30-60)	40.1	22.5%
BH	(60-80)	14.5	8.1%
BVH	(80-90)	1.4	0.8%
UL	(90-100)	0.0	0.0%
UH	(100-180)	0.0	0.0%
Total		178.4	100.0%
<b>BUG Rating</b>	<b>B0 U0 G0</b>		



## Attachment A

## Amended Report Documentation

[illegible]