



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**  
**LDM250-180-27 (180° OPENING, 2700K)**

Order Number  
11263738  
Test Number  
1256647E1A

Revision of Test Number 1256647E1 on:

2021-06-28  
Test Date

2019-03-22

Prepared By

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Approved By

Alexa Lambert, Project Handler

The results contained in this report pertain only to the tested sample.  
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NVLAP, NIST, or any agency of the Federal Government.



**Luminaire Description:** Cylindrical copper housing, brass domed top with two (2) 90° openings. This report has been pro-rated using data from test number 11263738-1256647 and data from Auroralight Inc to account for difference in color temperature.

**Lamp:** One (1) Cree XP-L 3000K LED

**Mounting:** Recessed In-Grade/Wall

#### Luminaire



#### Luminaire Characteristics

Luminous Diameter: 3.00 in.  
Luminous Height: 0.250 in.

#### Summary of Results

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

#### Test Conditions

Test Temperature: 25.3 °C  
Voltage: 12.01 VAC  
Current: 0.4164 A  
Power: 3.095 W  
Power Factor: 0.619  
Frequency: 60 Hz  
Current THD: 95.1 %

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
25.3 °C	12.01 VAC	0.4164 A	3.095 W	0.619	60 Hz	95.1 %

### Summary of Results

#### Spacing Criteria

0-180: 4.50

90-270: 3.39

#### Total Lumen Output:

36.45 Lumens

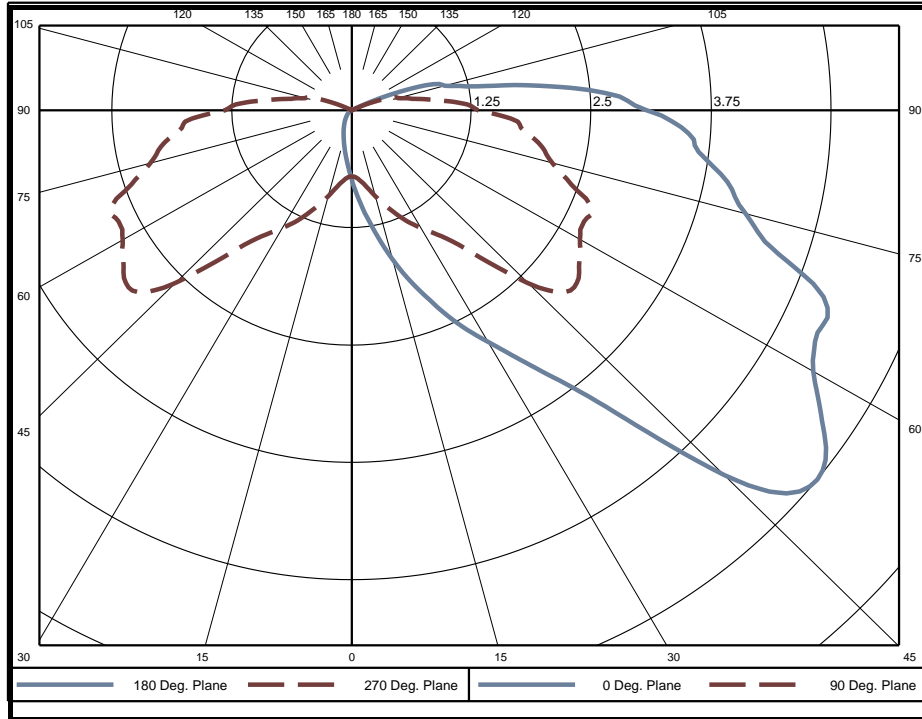
#### Luminaire Efficacy:

11.8 lm/w

#### Maximum Candela:

22 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	0.018	0.0%	60-65	2.368	6.5%	120-125	0.003	0.0%
5-10	0.057	0.2%	65-70	2.802	7.7%	125-130	0.003	0.0%
10-15	0.107	0.3%	70-75	3.908	10.7%	130-135	0.002	0.0%
15-20	0.175	0.5%	75-80	4.262	11.7%	135-140	0.001	0.0%
20-25	0.261	0.7%	80-85	4.295	11.8%	140-145	0.001	0.0%
25-30	0.368	1.0%	85-90	4.187	11.5%	145-150	0.001	0.0%
30-35	0.500	1.4%	90-95	3.659	10.0%	150-155	0.001	0.0%
35-40	0.701	1.9%	95-100	1.394	3.8%	155-160	0.001	0.0%
40-45	1.061	2.9%	100-105	0.547	1.5%	160-165	0.000	0.0%
45-50	1.459	4.0%	105-110	0.374	1.0%	165-170	0.000	0.0%
50-55	1.719	4.7%	110-115	0.189	0.5%	170-175	0.000	0.0%
55-60	2.008	5.5%	115-120	0.020	0.1%	175-180	0.000	0.0%

Zone	Lumens	% of Luminaire
0-40	2	6.0%
0-60	8	23.1%
0-90	30	83.0%
90-180	6	17.0%



**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	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
	5	0.98	0.96	0.90	0.82	0.73	0.65	0.60	0.57	0.55	0.57	0.60	0.65	0.73	0.82	0.90
	10	1.28	1.25	1.15	0.99	0.81	0.65	0.52	0.44	0.42	0.44	0.52	0.65	0.81	0.99	1.15
	15	1.65	1.61	1.48	1.23	0.95	0.68	0.48	0.36	0.32	0.36	0.48	0.68	0.95	1.23	1.48
	20	2.03	2.02	1.87	1.52	1.10	0.73	0.46	0.29	0.25	0.29	0.46	0.73	1.10	1.52	1.87
	25	2.45	2.48	2.34	1.85	1.28	0.79	0.45	0.25	0.19	0.25	0.45	0.79	1.28	1.85	2.34
	30	2.85	2.97	2.88	2.22	1.45	0.84	0.43	0.21	0.15	0.21	0.43	0.84	1.45	2.22	2.88
	35	3.36	3.58	3.60	2.74	1.64	0.88	0.42	0.18	0.11	0.18	0.42	0.88	1.64	2.74	3.60
	40	4.12	4.79	5.09	3.92	2.01	0.90	0.41	0.15	0.09	0.15	0.41	0.90	2.01	3.92	5.09
	45	5.50	6.46	7.43	5.69	2.60	0.95	0.38	0.12	0.06	0.12	0.38	0.95	2.60	5.69	7.43
	50	6.24	7.41	8.76	6.70	2.99	1.02	0.35	0.10	0.05	0.10	0.35	1.02	2.99	6.70	8.76
	55	6.02	8.17	9.73	7.93	2.90	1.03	0.31	0.08	0.03	0.08	0.31	1.03	2.90	7.93	9.73
	60	5.56	9.38	11.14	9.26	2.76	0.91	0.26	0.06	0.02	0.06	0.26	0.91	2.76	9.26	11.14
	65	5.42	10.68	12.91	11.12	2.72	0.73	0.21	0.04	0.01	0.04	0.21	0.73	2.72	11.12	12.91
	70	4.93	13.59	16.15	14.44	2.52	0.57	0.15	0.03	0.01	0.03	0.15	0.57	2.52	14.44	16.15
	75	4.25	17.61	21.25	18.83	2.17	0.43	0.10	0.02	0.01	0.02	0.10	0.43	2.17	18.83	21.25
	80	3.91	18.44	21.37	19.62	1.98	0.31	0.06	0.01	0.01	0.01	0.06	0.31	1.98	19.62	21.37
	85	3.58	16.64	20.75	21.01	1.77	0.20	0.03	0.01	0.01	0.01	0.03	0.20	1.77	21.01	20.75
	90	3.07	15.46	18.95	19.93	1.32	0.10	0.02	0.01	0.01	0.01	0.02	0.10	1.32	19.93	18.95
	95	2.48	13.97	15.37	14.14	1.06	0.11	0.02	0.01	0.01	0.01	0.02	0.11	1.06	14.14	15.37
	100	1.50	3.15	3.47	2.89	0.70	0.11	0.02	0.01	0.02	0.01	0.02	0.11	0.70	2.89	3.47
	105	1.01	1.66	1.82	1.62	0.50	0.09	0.02	0.01	0.01	0.01	0.02	0.09	0.50	1.62	1.82
	110	0.71	1.34	1.35	1.27	0.33	0.03	0.01	0.01	0.01	0.01	0.01	0.03	0.33	1.27	1.35
	115	0.16	0.36	0.36	0.34	0.07	0.01	0.01	0.01	0.01	0.01	0.01	0.07	0.34	0.36	0.36
	120	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	125	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
	130	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00
	135	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00
	140	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	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	0.01	0.00	0.01	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	0.01	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	0.01	0.00	0.00	0.00	0.00	0.00	0.00
	170	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	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	0.01	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)		
		0	45	90
Vertical Angle (Degrees)	0	159	159	159
	45	1705	2304	807
	55	2301	3719	1110
	65	2812	6700	1408
	75	3602	18010	1841
	85	9009	52200	4441



### 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	42	42	42	42	40	40	40	40	37	37	37	34	34	34	32	32	32	30
1	34	30	27	24	32	29	26	23	26	24	21	23	21	20	21	19	18	16
2	29	24	20	17	27	23	19	16	20	17	15	18	16	13	16	14	12	11
3	26	20	16	12	24	19	15	12	17	13	11	15	12	10	13	11	9	7
4	23	17	13	9	22	16	12	9	14	11	8	13	10	7	11	9	6	5
5	21	15	11	7	20	14	10	7	12	9	6	11	8	6	10	7	5	4
6	19	13	9	6	18	12	9	6	11	8	5	10	7	5	9	6	4	3
7	18	12	8	5	17	11	7	5	10	7	4	9	6	4	8	5	3	2
8	16	11	7	4	15	10	6	4	9	6	4	8	5	3	7	5	3	2
9	15	10	6	4	14	9	6	4	8	5	3	7	5	3	6	4	2	2
10	14	9	5	3	13	8	5	3	7	5	3	7	4	2	6	4	2	1

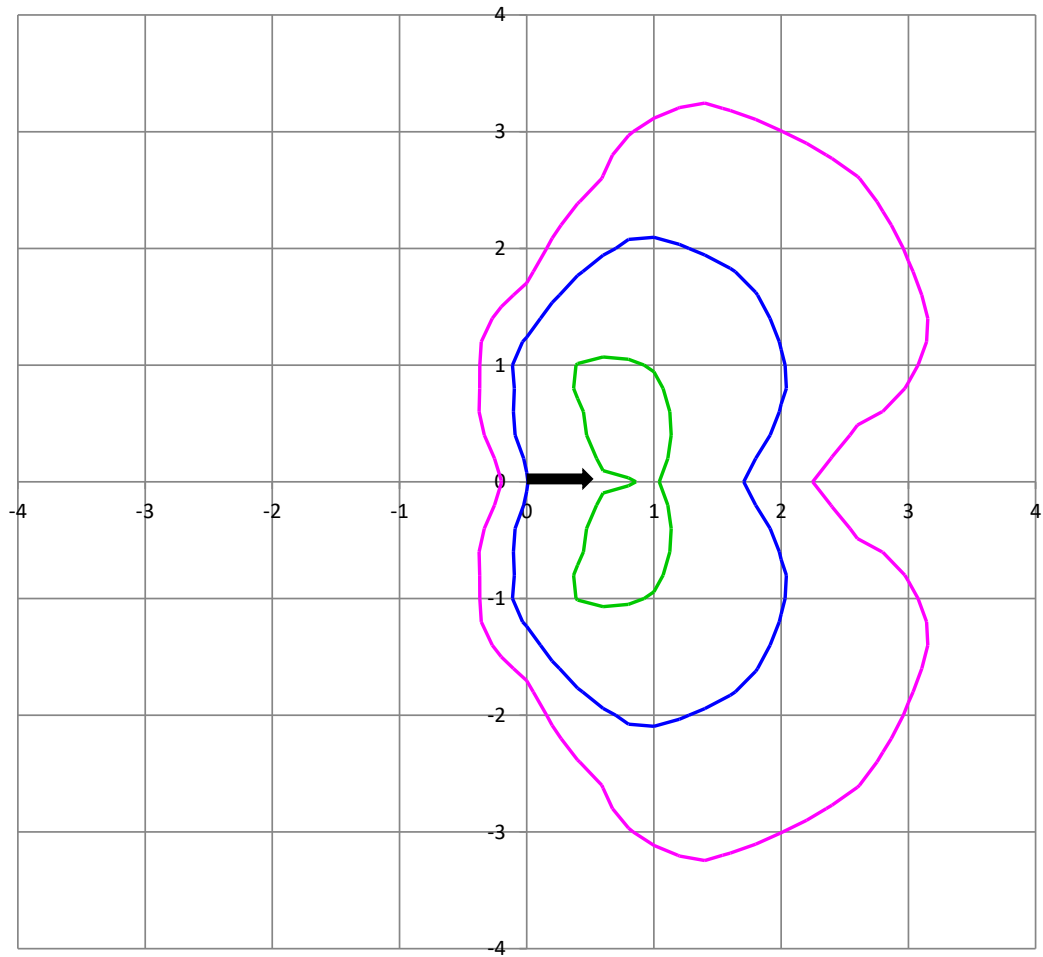
Beam and Field Information	
CIE Type:	Semi-Direct
Center Beam Intensity:	0.73 Candela
Central Cone Intensity:	1 Candela
Beam Flux:	36.1 Lumens
Beam Angle (0-180):	125.7 Degrees
Beam Angle (90-270):	219.0 Degrees
Field Angle (0-180):	158.9 Degrees
Field Angle (90-270):	230.0 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		0.0454	17.8
6.00		0.0202	26.7
8.00		0.0113	35.7
10.0		0.00726	44.6
12.0		0.00504	53.5
14.0		0.00371	62.4
16.0		0.00284	71.3

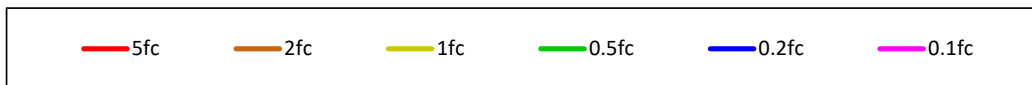


## ISOFootcandle Plot

Mounting Height - 2 Feet

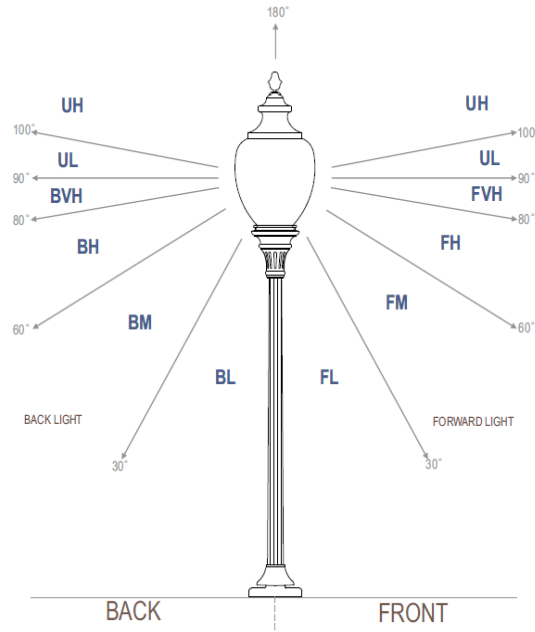


Grid Lines in Units of Mounting Height





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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	0.8	2.1%
FM	(30-60)	6.7	18.3%
FH	(60-80)	12.9	35.3%
FVH	(80-90)	8.4	22.9%
BL	(0-30)	0.2	0.6%
BM	(30-60)	0.7	2.0%
BH	(60-80)	0.4	1.2%
BVH	(80-90)	0.1	0.3%
UL	(90-100)	5.2	14.2%
UH	(100-180)	1.1	3.1%
Total		36.7	100.0%
<b>BUG Rating</b>	<b>B0 U1 G0</b>		



## Attachment A

## Amended Report Documentation

[illegible]