



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**  
**LDM250-360-27 (360° OPENING, 2700K)**

Order Number  
11263738  
Test Number  
1256645E1A

Revision of Test Number 1256645E1 on:

2021-06-29  
Test Date

2018-03-01

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 four (4) 90° openings. This report has been pro-rated using data from test number 11263738-12566451 and data from Auroralight Inc to account for differences in color temperature.

**Lamp:** One (1) Cree XP-L 2700K 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, Medium  
Cutoff Classification: Noncutoff  
BUG Rating: B0 U2 G0

#### Test Conditions

Test Temperature: 24.9 °C  
Voltage: 11.97 VAC  
Current: 0.4339 A  
Power: 3.198 W  
Power Factor: 0.616  
Frequency: 60 Hz  
Current THD: 93.9 %

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
24.9 °C	11.97 VAC	0.4339 A	3.198 W	0.616	60 Hz	93.9 %

### Summary of Results

#### Spacing Criteria

0-180: 2.81

90-270: 2.44

#### Total Lumen Output:

56.37 Lumens

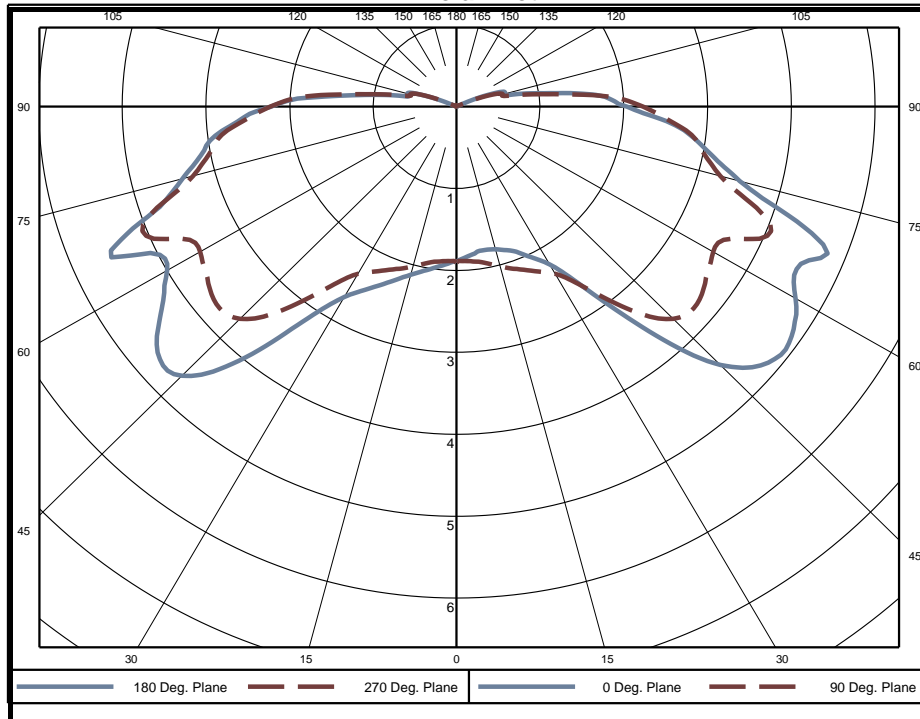
#### Luminaire Efficacy:

17.6 lm/w

#### Maximum Candela:

18 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	0.045	0.1%	60-65	3.150	5.6%	120-125	0.023	0.0%
5-10	0.137	0.2%	65-70	3.148	5.6%	125-130	0.019	0.0%
10-15	0.235	0.4%	70-75	4.575	8.1%	130-135	0.016	0.0%
15-20	0.344	0.6%	75-80	6.439	11.4%	135-140	0.014	0.0%
20-25	0.468	0.8%	80-85	6.998	12.4%	140-145	0.012	0.0%
25-30	0.627	1.1%	85-90	6.743	12.0%	145-150	0.010	0.0%
30-35	0.877	1.6%	90-95	6.664	11.8%	150-155	0.008	0.0%
35-40	1.292	2.3%	95-100	3.288	5.8%	155-160	0.007	0.0%
40-45	1.793	3.2%	100-105	0.681	1.2%	160-165	0.005	0.0%
45-50	2.225	3.9%	105-110	0.535	0.9%	165-170	0.004	0.0%
50-55	2.613	4.6%	110-115	0.235	0.4%	170-175	0.002	0.0%
55-60	3.101	5.5%	115-120	0.035	0.1%	175-180	0.001	0.0%

Zone	Lumens	% of Luminaire
0-40	4	7.1%
0-60	14	24.4%
0-90	45	79.5%
90-180	12	20.5%



**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	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90
	5	1.82	1.85	1.86	1.90	1.89	1.94	1.95	1.96	1.95	1.96	1.95	1.94	1.89	1.90	1.86
	10	1.78	1.83	1.87	1.92	1.94	2.01	2.03	2.04	2.03	2.04	2.03	2.01	1.94	1.92	1.87
	15	1.80	1.87	1.93	1.98	2.02	2.13	2.16	2.15	2.12	2.15	2.16	2.13	2.02	1.98	1.93
	20	1.87	1.96	2.03	2.07	2.11	2.28	2.35	2.30	2.27	2.30	2.35	2.28	2.11	2.07	2.03
	25	2.01	2.13	2.22	2.21	2.22	2.49	2.63	2.51	2.45	2.51	2.63	2.49	2.22	2.21	2.22
	30	2.22	2.46	2.64	2.47	2.36	2.85	3.14	2.85	2.68	2.85	3.14	2.85	2.36	2.47	2.64
	35	2.73	3.14	3.43	2.99	2.71	3.68	4.28	3.71	3.20	3.71	4.28	3.68	2.71	2.99	3.43
	40	3.58	4.22	4.47	3.77	3.24	4.75	5.68	5.10	4.05	5.10	5.68	4.75	3.24	3.77	4.47
	45	4.46	5.36	5.38	4.60	3.66	5.51	6.55	6.19	4.65	6.19	6.55	5.51	3.66	4.60	5.38
	50	4.86	6.33	6.05	5.31	3.75	5.90	6.91	6.90	4.67	6.90	6.91	5.90	3.75	5.31	6.05
	55	4.89	7.50	7.37	6.48	3.64	6.47	7.29	7.45	4.31	7.45	7.29	6.47	3.64	6.48	7.37
	60	4.68	8.61	8.59	7.40	3.54	6.61	7.16	7.26	4.00	7.26	7.16	6.61	3.54	7.40	8.59
	65	4.54	8.02	7.55	6.93	3.82	6.43	6.88	6.97	4.30	6.97	6.88	6.43	3.82	6.93	7.55
	70	4.52	7.26	6.81	6.22	3.92	6.21	7.29	7.27	3.93	7.27	7.29	6.21	3.92	6.22	6.81
	75	3.50	12.14	12.55	13.02	3.26	14.15	14.83	15.88	3.39	15.88	14.83	14.15	3.26	13.02	12.55
	80	3.03	14.76	15.42	16.08	2.97	15.88	16.98	17.92	3.06	17.92	16.98	15.88	2.97	16.08	15.42
	85	2.63	16.58	16.07	16.65	2.66	14.52	15.36	15.97	2.72	15.97	15.36	14.52	2.66	16.65	16.07
	90	2.04	17.31	17.48	16.44	2.23	13.15	14.08	14.75	2.22	14.75	14.08	13.15	2.23	16.44	17.48
	95	1.67	18.38	17.92	16.63	1.63	12.92	13.60	14.43	1.49	14.43	13.60	12.92	1.63	16.63	17.92
	100	0.95	2.09	2.34	2.26	0.86	2.02	2.07	2.11	0.82	2.11	2.07	2.02	0.86	2.26	2.34
	105	0.58	1.06	1.16	1.11	0.57	1.15	1.21	1.30	0.60	1.30	1.21	1.15	0.57	1.11	1.16
	110	0.49	1.00	1.00	0.94	0.39	0.97	0.93	1.13	0.38	1.13	0.93	0.97	0.39	0.94	1.00
	115	0.11	0.21	0.20	0.19	0.07	0.16	0.12	0.13	0.05	0.13	0.12	0.16	0.07	0.19	0.20
	120	0.02	0.06	0.07	0.07	0.02	0.06	0.06	0.06	0.02	0.06	0.06	0.06	0.02	0.07	0.07
	125	0.02	0.05	0.06	0.06	0.02	0.06	0.06	0.05	0.02	0.05	0.06	0.06	0.02	0.06	0.06
	130	0.02	0.05	0.05	0.05	0.01	0.05	0.05	0.05	0.01	0.05	0.05	0.05	0.01	0.05	0.05
	135	0.01	0.05	0.05	0.05	0.01	0.05	0.05	0.04	0.01	0.04	0.05	0.05	0.01	0.05	0.05
	140	0.01	0.04	0.05	0.05	0.01	0.05	0.04	0.04	0.01	0.04	0.04	0.05	0.01	0.05	0.05
	145	0.01	0.04	0.04	0.04	0.01	0.04	0.04	0.04	0.01	0.04	0.04	0.04	0.01	0.04	0.04
	150	0.01	0.04	0.04	0.04	0.01	0.04	0.04	0.04	0.01	0.04	0.04	0.04	0.01	0.04	0.04
	155	0.01	0.04	0.04	0.04	0.01	0.04	0.04	0.04	0.01	0.04	0.04	0.04	0.01	0.04	0.04
	160	0.01	0.04	0.04	0.04	0.01	0.04	0.04	0.04	0.01	0.04	0.04	0.04	0.01	0.04	0.04
	165	0.01	0.04	0.04	0.04	0.01	0.04	0.04	0.04	0.01	0.04	0.04	0.04	0.01	0.04	0.04
	170	0.01	0.04	0.04	0.04	0.01	0.04	0.04	0.04	0.01	0.04	0.04	0.04	0.01	0.04	0.04
	175	0.01	0.04	0.04	0.04	0.01	0.04	0.04	0.04	0.01	0.04	0.04	0.04	0.01	0.04	0.04
	180	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03

**Average Luminance (cd/m<sup>2</sup>)**

Vertical Angle (Degrees)	Horizontal Angle (Degrees)			
		0	45	90
	0	417	417	417
	45	4526	5458	3716
	55	6115	9214	4551
	65	1926	3202	1621
	75	1309	4688	1218
	85	909	5555	919



### 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	64	64	64	64	62	62	62	62	56	56	56	51	51	51	47	47	47	45
1	52	47	42	38	49	44	40	36	39	36	32	35	32	29	31	29	26	24
2	45	38	32	26	42	36	30	25	31	27	23	28	24	20	24	21	18	16
3	40	32	25	20	37	30	24	19	26	21	17	23	19	15	20	16	13	11
4	36	27	20	15	34	25	19	15	22	17	13	20	15	12	17	13	10	8
5	33	24	17	12	31	22	16	12	20	14	11	17	13	9	15	11	8	6
6	30	21	15	10	28	20	14	10	17	12	9	15	11	8	13	10	7	5
7	28	19	13	9	26	18	12	8	16	11	7	14	10	6	12	8	6	4
8	26	17	11	7	24	16	11	7	14	10	6	12	8	6	11	7	5	3
9	24	15	10	6	22	14	9	6	13	8	5	11	8	5	10	7	4	3
10	22	14	9	6	21	13	8	5	12	8	5	11	7	4	9	6	4	2

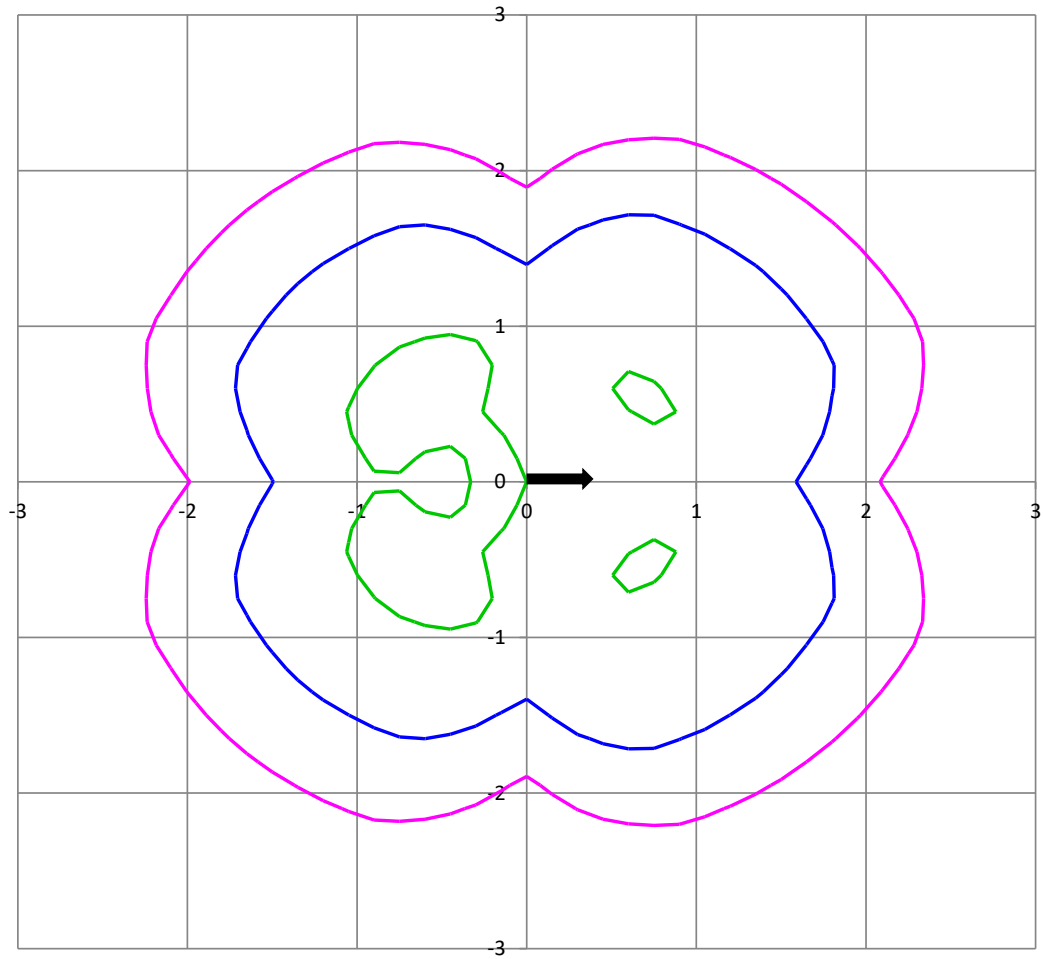
Beam and Field Information	
CIE Type:	Semi-Direct
Center Beam Intensity:	1.90 Candela
Central Cone Intensity:	2 Candela
Beam Flux:	55.8 Lumens
Beam Angle (0-180):	198.8 Degrees
Beam Angle (90-270):	198.3 Degrees
Field Angle (0-180):	226.4 Degrees
Field Angle (90-270):	225.8 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		0.119	13.2
6.00		0.0529	19.8
8.00		0.0297	26.4
10.0		0.0190	33.0
12.0		0.0132	39.5
14.0		0.00971	46.1
16.0		0.00744	52.7

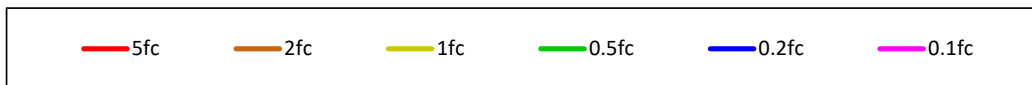


## ISOFootcandle Plot

Mounting Height - 2 Feet

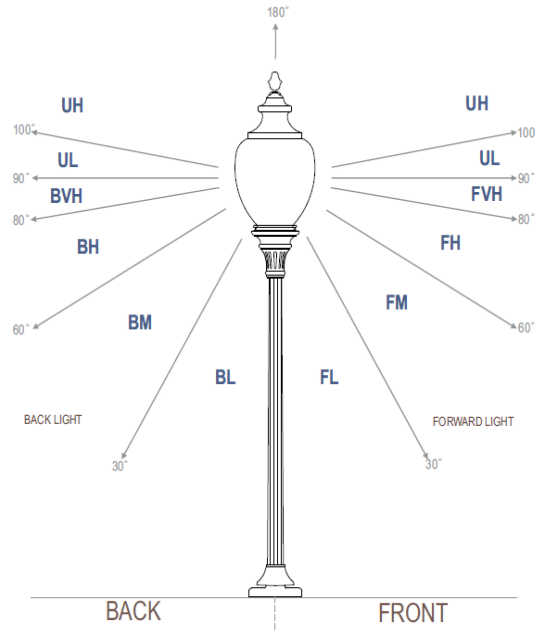


Grid Lines in Units of Mounting Height





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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	0.9	1.5%
FM	(30-60)	5.7	10.2%
FH	(60-80)	8.4	14.8%
FVH	(80-90)	7.0	12.3%
BL	(0-30)	1.0	1.7%
BM	(30-60)	6.1	10.8%
BH	(60-80)	9.1	16.1%
BVH	(80-90)	6.8	12.0%
UL	(90-100)	10.0	17.7%
UH	(100-180)	1.6	2.9%
Total		56.6	100.0%
<b>BUG Rating</b>	<b>B0 U2 G0</b>		



## Attachment A

## Amended Report Documentation

[illegible]