



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**  
**LDM250-90-30 (90° OPENING, 3000K)**

Order Number  
11263738  
Test Number  
1256648A

Revision of Test Number 1256648 on:

2021-06-28  
Test Date

2018-03-12

Prepared By

Derek Smarr, 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 housing, brass domed top with one (1) 90° openings  
**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, Long  
Cutoff Classification: Noncutoff  
BUG Rating: B0 U1 G0

#### Test Conditions

Test Temperature: 25.2 °C  
Voltage: 11.97 VAC  
Current: 0.4217 A  
Power: 3.098 W  
Power Factor: 0.614  
Frequency: 60 Hz  
Current THD: 95.6 %

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 Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.2 °C	11.97 VAC	0.4217 A	3.098 W	0.614	60 Hz	95.6 %

#### Summary of Results

##### Spacing Criteria

0-180: 5.92

90-270: 0.86

Total Lumen Output:

18.96 Lumens

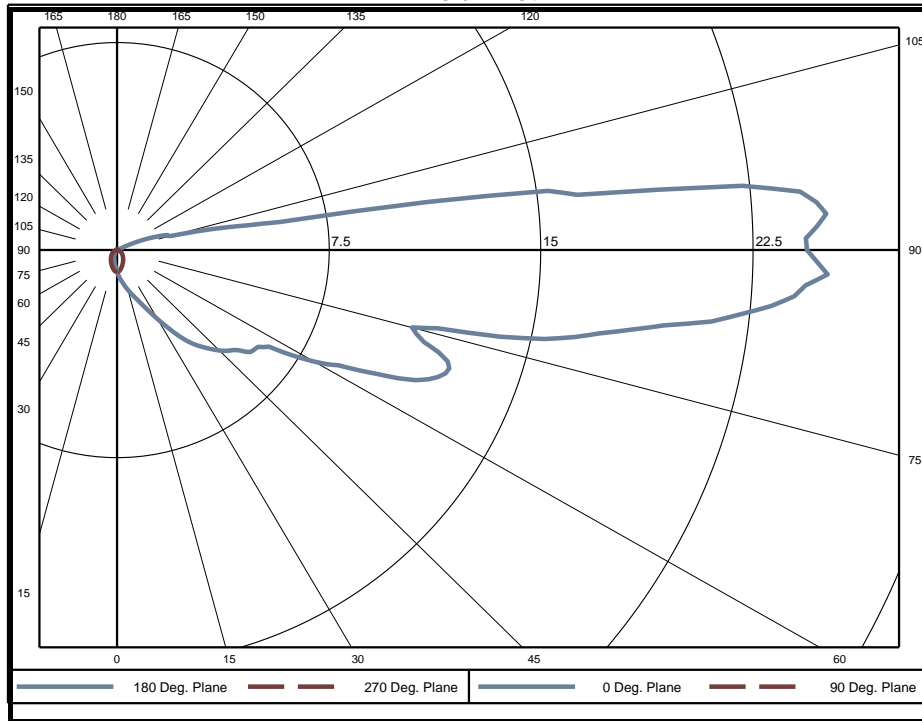
Luminaire Efficacy:

6.1 lm/w

Maximum Candela:

25 Candela

#### Polar Plot



#### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	0.019	0.1%	60-65	0.994	5.2%	120-125	0.002	0.0%
5-10	0.056	0.3%	65-70	1.281	6.8%	125-130	0.001	0.0%
10-15	0.093	0.5%	70-75	1.314	6.9%	130-135	0.001	0.0%
15-20	0.129	0.7%	75-80	1.682	8.9%	135-140	0.000	0.0%
20-25	0.169	0.9%	80-85	2.257	11.9%	140-145	0.000	0.0%
25-30	0.219	1.2%	85-90	2.646	14.0%	145-150	0.000	0.0%
30-35	0.287	1.5%	90-95	2.695	14.2%	150-155	0.000	0.0%
35-40	0.372	2.0%	95-100	1.675	8.8%	155-160	0.000	0.0%
40-45	0.458	2.4%	100-105	0.400	2.1%	160-165	0.000	0.0%
45-50	0.537	2.8%	105-110	0.208	1.1%	165-170	0.000	0.0%
50-55	0.619	3.3%	110-115	0.096	0.5%	170-175	0.000	0.0%
55-60	0.737	3.9%	115-120	0.009	0.0%	175-180	0.000	0.0%

Zone	Lumens	% of Luminaire
0-40	1	7.1%
0-60	4	19.5%
0-90	14	73.1%
90-180	5	26.8%



### 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	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
	5	0.99	0.99	0.94	0.85	0.77	0.71	0.67	0.64	0.61	0.64	0.67	0.71	0.77	0.85	0.94
	10	1.22	1.19	1.04	0.86	0.70	0.60	0.53	0.49	0.46	0.49	0.53	0.60	0.70	0.86	1.04
	15	1.49	1.41	1.14	0.86	0.63	0.49	0.42	0.38	0.36	0.38	0.42	0.49	0.63	0.86	1.14
	20	1.80	1.64	1.24	0.84	0.56	0.40	0.32	0.29	0.28	0.29	0.32	0.40	0.56	0.84	1.24
	25	2.23	1.95	1.35	0.82	0.49	0.32	0.25	0.22	0.21	0.22	0.25	0.32	0.49	0.82	1.35
	30	2.89	2.40	1.51	0.81	0.43	0.26	0.19	0.16	0.16	0.16	0.19	0.26	0.43	0.81	1.51
	35	3.76	3.04	1.73	0.80	0.38	0.21	0.14	0.12	0.11	0.12	0.14	0.21	0.38	0.80	1.73
	40	4.53	3.69	1.97	0.80	0.33	0.16	0.10	0.08	0.08	0.08	0.10	0.16	0.33	0.80	1.97
	45	5.13	4.26	2.12	0.80	0.29	0.13	0.07	0.05	0.05	0.05	0.07	0.13	0.29	0.80	2.12
	50	5.63	4.78	2.17	0.76	0.24	0.10	0.05	0.03	0.03	0.03	0.05	0.10	0.24	0.76	2.17
	55	6.09	5.37	2.16	0.70	0.20	0.07	0.03	0.02	0.01	0.02	0.03	0.07	0.20	0.70	2.16
	60	8.06	7.40	2.14	0.63	0.16	0.05	0.02	0.01	0.00	0.01	0.02	0.05	0.16	0.63	2.14
	65	10.95	10.31	2.28	0.56	0.13	0.03	0.01	0.00	0.00	0.00	0.01	0.03	0.13	0.56	2.28
	70	12.50	11.65	2.45	0.50	0.10	0.02	0.00	0.01	0.01	0.01	0.00	0.02	0.10	0.50	2.45
	75	10.80	11.19	2.24	0.40	0.06	0.01	0.00	0.01	0.01	0.01	0.00	0.01	0.06	0.40	2.24
	80	17.33	18.21	2.23	0.30	0.03	0.00	0.00	0.01	0.02	0.01	0.00	0.00	0.03	0.30	2.23
	85	23.21	22.38	2.26	0.19	0.01	0.00	0.00	0.01	0.02	0.01	0.00	0.00	0.01	0.19	2.26
	90	24.40	24.74	2.21	0.09	0.00	0.00	0.00	0.01	0.02	0.01	0.00	0.00	0.00	0.09	2.21
Vertical Angle (Degrees)	95	24.25	24.21	1.90	0.10	0.00	0.00	0.00	0.01	0.02	0.01	0.00	0.00	0.10	1.90	24.21
	100	5.85	5.00	1.15	0.11	0.00	0.00	0.00	0.01	0.02	0.01	0.00	0.00	0.11	1.15	5.00
	105	1.98	1.96	0.54	0.06	0.00	0.00	0.00	0.01	0.02	0.01	0.00	0.00	0.06	0.54	1.96
	110	1.34	1.44	0.31	0.01	0.00	0.00	0.00	0.01	0.02	0.01	0.00	0.00	0.01	0.31	1.44
	115	0.34	0.33	0.07	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.07	0.33
	120	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.01
	125	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	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	0.01	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	176	176
	45	1592	658
	55	2329	824
	65	5681	1181
	75	9150	1901
	85	58400	5678



### 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	21	21	21	21	20	20	20	20	18	18	18	16	16	16	15	15	15	14
1	17	15	14	12	16	15	13	12	13	11	10	11	10	9	9	9	8	7
2	15	13	11	9	14	12	10	8	10	9	7	9	7	6	7	6	5	5
3	13	11	8	7	12	10	8	6	8	7	5	7	6	5	6	5	4	3
4	12	9	7	5	11	8	6	5	7	6	4	6	5	4	5	4	3	2
5	11	8	6	4	10	7	5	4	6	5	4	5	4	3	5	3	2	2
6	10	7	5	4	9	7	5	3	6	4	3	5	4	2	4	3	2	1
7	9	6	4	3	9	6	4	3	5	4	2	4	3	2	4	3	2	1
8	9	6	4	3	8	5	4	2	5	3	2	4	3	2	3	2	2	1
9	8	5	3	2	7	5	3	2	4	3	2	4	2	2	3	2	1	1
10	8	5	3	2	7	4	3	2	4	3	2	3	2	1	3	2	1	1

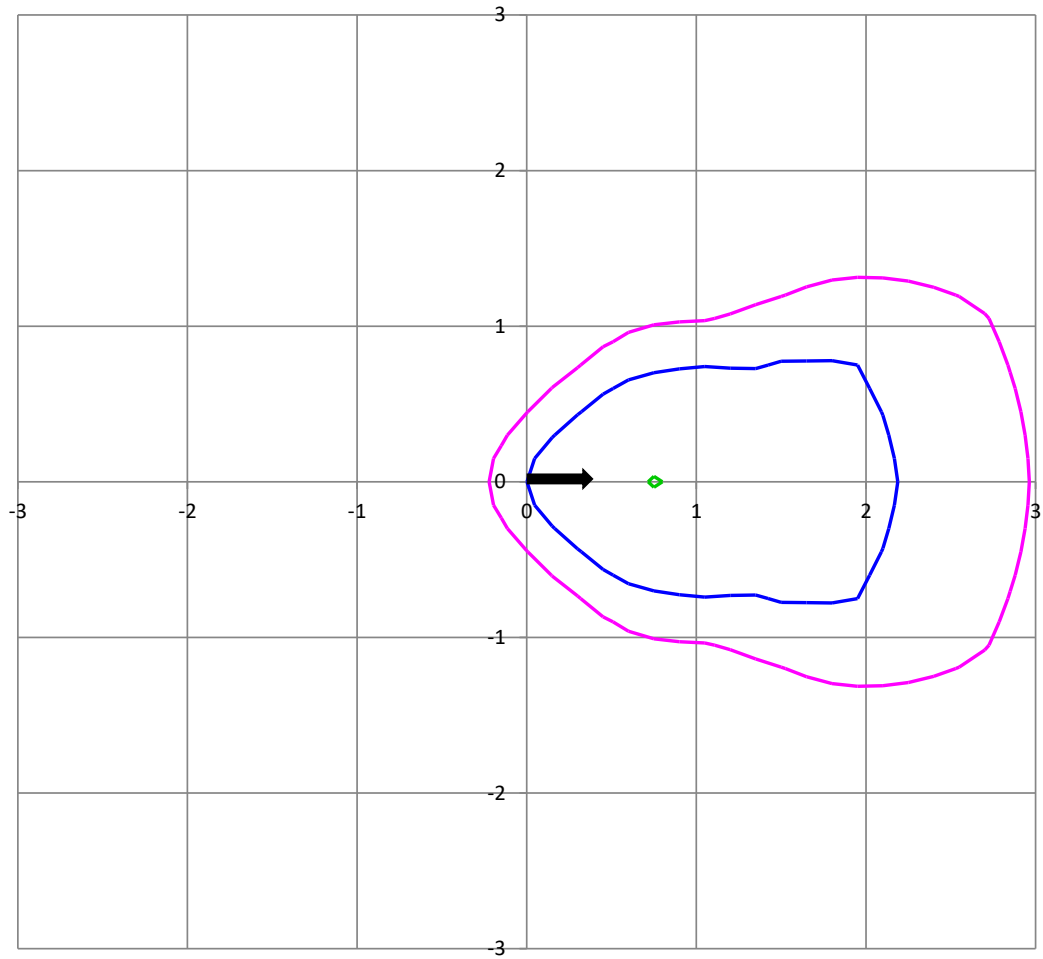
Beam and Field Information	
CIE Type:	Semi-Direct
Center Beam Intensity:	0.80 Candela
Central Cone Intensity:	1 Candela
Beam Flux:	18.6 Lumens
Beam Angle (0-180):	127.5 Degrees
Beam Angle (90-270):	65.4 Degrees
Field Angle (0-180):	155.6 Degrees
Field Angle (90-270):	144.2 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		0.0502	8.85
6.00		0.0223	13.3
8.00		0.0126	17.7
10.0		0.00804	22.1
12.0		0.00558	26.6
14.0		0.00410	31.0
16.0		0.00314	35.4

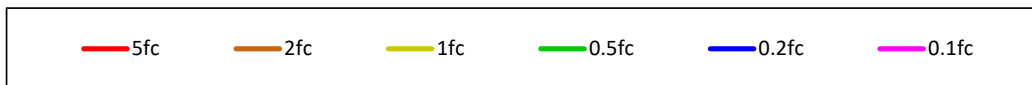


## ISOFootcandle Plot

Mounting Height - 2 Feet

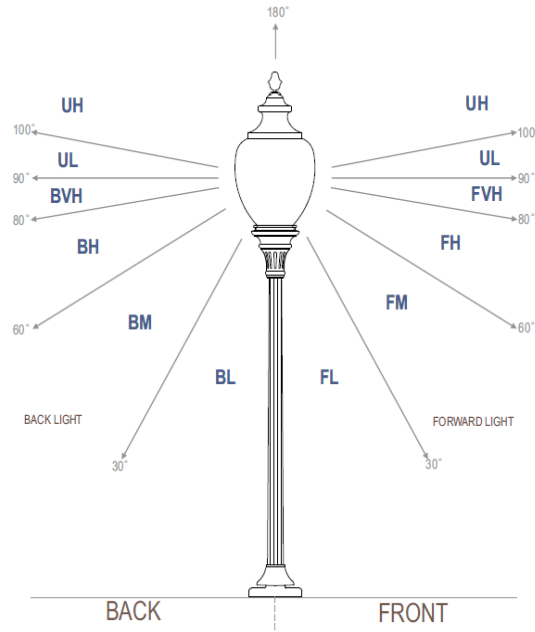


Grid Lines in Units of Mounting Height





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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	0.5	2.8%
FM	(30-60)	2.9	15.4%
FH	(60-80)	5.2	27.8%
FVH	(80-90)	4.8	25.7%
BL	(0-30)	0.2	0.8%
BM	(30-60)	0.1	0.6%
BH	(60-80)	0.0	0.1%
BVH	(80-90)	0.0	0.0%
UL	(90-100)	4.3	22.9%
UH	(100-180)	0.7	3.8%
Total		18.8	100.0%
<b>BUG Rating</b>	<b>B0 U1 G0</b>		



## Attachment A

## Amended Report Documentation

[illegible]