UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300

ACCREDITED Testing Laboratory

NVLAP LAB CODE 201042-0

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

LDM250-180-30 (180° OPENING, 3000K)

Order Number
11263738
Test Number
1256647A
Revision of Test Number 1256647 on:
2021-06-28
Test Date

2018-03-05

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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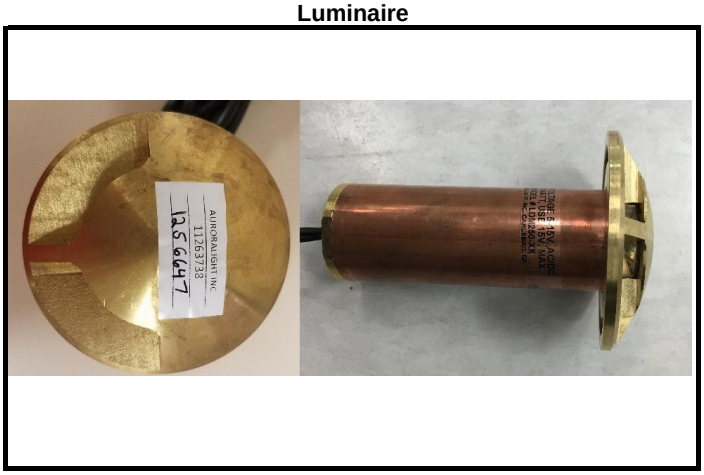
Luminaire Description: Cylindrical copper housing, brass domed top with two (2) 90° openings
Lamp: One (1) Cree XP-L 3000K LED
Mounting: Recessed In-Grade/Wall

Luminaire



Luminaire Characteristics

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

Summary of Results

Roadway Classification:	Type I, 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

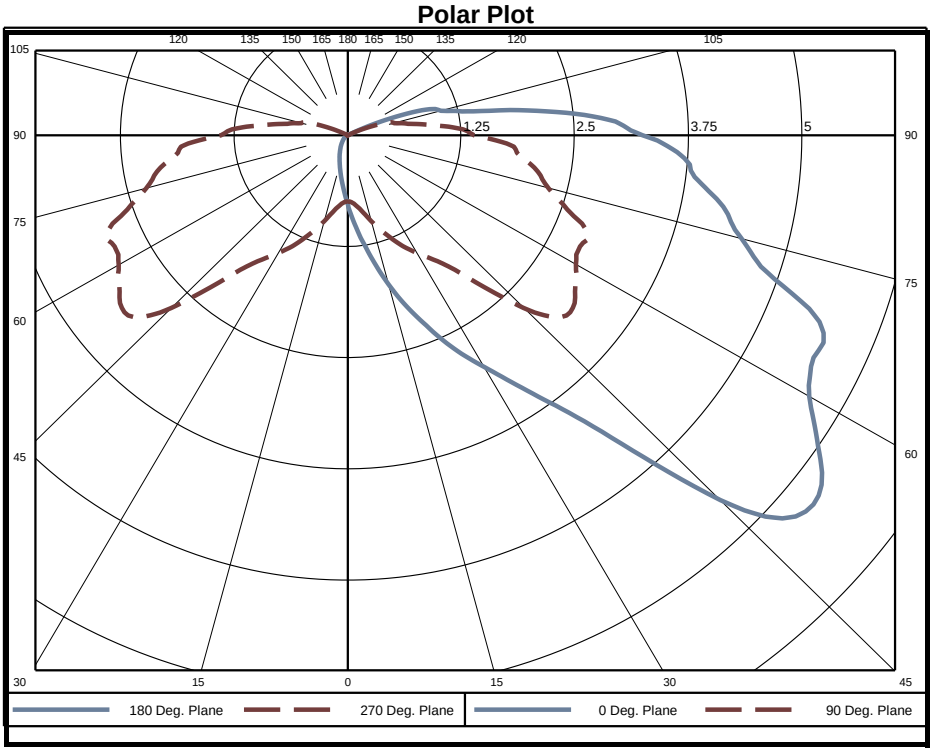
Distribution Test Conditions

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	**Total Lumen Output:**	38.47	Lumens
90-270: 3.39	**Luminaire Efficacy:**	12.4	lm/w
	Maximum Candela:	23	Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	0.019	0.0%	60-65	2.499	6.5%	120-125	0.004	0.0%
5-10	0.060	0.2%	65-70	2.957	7.7%	125-130	0.003	0.0%
10-15	0.113	0.3%	70-75	4.125	10.7%	130-135	0.002	0.0%
15-20	0.184	0.5%	75-80	4.498	11.7%	135-140	0.001	0.0%
20-25	0.275	0.7%	80-85	4.534	11.8%	140-145	0.001	0.0%
25-30	0.389	1.0%	85-90	4.419	11.5%	145-150	0.001	0.0%
30-35	0.528	1.4%	90-95	3.863	10.0%	150-155	0.001	0.0%
35-40	0.740	1.9%	95-100	1.471	3.8%	155-160	0.001	0.0%
40-45	1.120	2.9%	100-105	0.577	1.5%	160-165	0.000	0.0%
45-50	1.540	4.0%	105-110	0.395	1.0%	165-170	0.000	0.0%
50-55	1.814	4.7%	110-115	0.199	0.5%	170-175	0.000	0.0%
55-60	2.119	5.5%	115-120	0.021	0.1%	175-180	0.000	0.0%

Zone	Lumens	% of Luminaire
0-40	2	6.0%
0-60	9	23.1%
0-90	32	83.0%
90-180	7	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	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
5	1.04	1.01	0.95	0.86	0.77	0.69	0.63	0.60	0.58	0.60	0.63	0.69	0.77	0.86	0.95	1.01
10	1.35	1.32	1.21	1.04	0.86	0.69	0.55	0.46	0.44	0.46	0.55	0.69	0.86	1.04	1.21	1.32
15	1.74	1.70	1.56	1.30	1.00	0.72	0.51	0.38	0.34	0.38	0.51	0.72	1.00	1.30	1.56	1.70
20	2.14	2.14	1.97	1.60	1.16	0.77	0.49	0.31	0.26	0.31	0.49	0.77	1.16	1.60	1.97	2.14
25	2.58	2.62	2.47	1.96	1.35	0.83	0.47	0.26	0.20	0.26	0.47	0.83	1.35	1.96	2.47	2.62
30	3.01	3.14	3.04	2.35	1.53	0.88	0.46	0.22	0.16	0.22	0.46	0.88	1.53	2.35	3.04	3.14
35	3.54	3.78	3.80	2.89	1.73	0.93	0.45	0.19	0.12	0.19	0.45	0.93	1.73	2.89	3.80	3.78
40	4.35	5.06	5.37	4.14	2.12	0.95	0.43	0.16	0.09	0.16	0.43	0.95	2.12	4.14	5.37	5.06
45	5.80	6.82	7.84	6.01	2.75	1.00	0.40	0.13	0.07	0.13	0.40	1.00	2.75	6.01	7.84	6.82
50	6.58	7.82	9.24	7.07	3.15	1.08	0.37	0.11	0.05	0.11	0.37	1.08	3.15	7.07	9.24	7.82
55	6.35	8.62	10.27	8.37	3.06	1.09	0.33	0.08	0.04	0.08	0.33	1.09	3.06	8.37	10.27	8.62
60	5.87	9.90	11.76	9.77	2.91	0.96	0.28	0.06	0.02	0.06	0.28	0.96	2.91	9.77	11.76	9.90
65	5.72	11.27	13.63	11.74	2.87	0.77	0.22	0.05	0.01	0.05	0.22	0.77	2.87	11.74	13.63	11.27
70	5.21	14.34	17.05	15.25	2.66	0.60	0.16	0.03	0.01	0.03	0.16	0.60	2.66	15.25	17.05	14.34
75	4.49	18.59	22.43	19.87	2.29	0.45	0.11	0.02	0.01	0.02	0.11	0.45	2.29	19.87	22.43	18.59
80	4.12	19.47	22.55	20.71	2.09	0.33	0.07	0.01	0.01	0.01	0.07	0.33	2.09	20.71	22.55	19.47
85	3.78	17.57	21.90	22.18	1.86	0.21	0.04	0.01	0.01	0.01	0.04	0.21	1.86	22.18	21.90	17.57
90	3.24	16.32	20.01	21.04	1.40	0.11	0.02	0.02	0.01	0.02	0.02	0.11	1.40	21.04	20.01	16.32
95	2.62	14.74	16.23	14.93	1.12	0.12	0.02	0.02	0.01	0.02	0.02	0.12	1.12	14.93	16.23	14.74
100	1.58	3.32	3.67	3.05	0.74	0.12	0.02	0.01	0.02	0.01	0.02	0.12	0.74	3.05	3.67	3.32
105	1.06	1.75	1.93	1.71	0.53	0.09	0.02	0.01	0.01	0.01	0.02	0.09	0.53	1.71	1.93	1.75
110	0.75	1.41	1.42	1.34	0.35	0.03	0.01	0.01	0.01	0.01	0.01	0.03	0.35	1.34	1.42	1.41
115	0.17	0.38	0.38	0.36	0.08	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.08	0.36	0.38	0.38
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	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	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	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	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	0.00
145	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	0.00
150	0.00	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	0.00
155	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	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	0.00
165	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	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	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	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	0.00

Average Luminance (cd/m^2)

Horizontal Angle (Degrees)

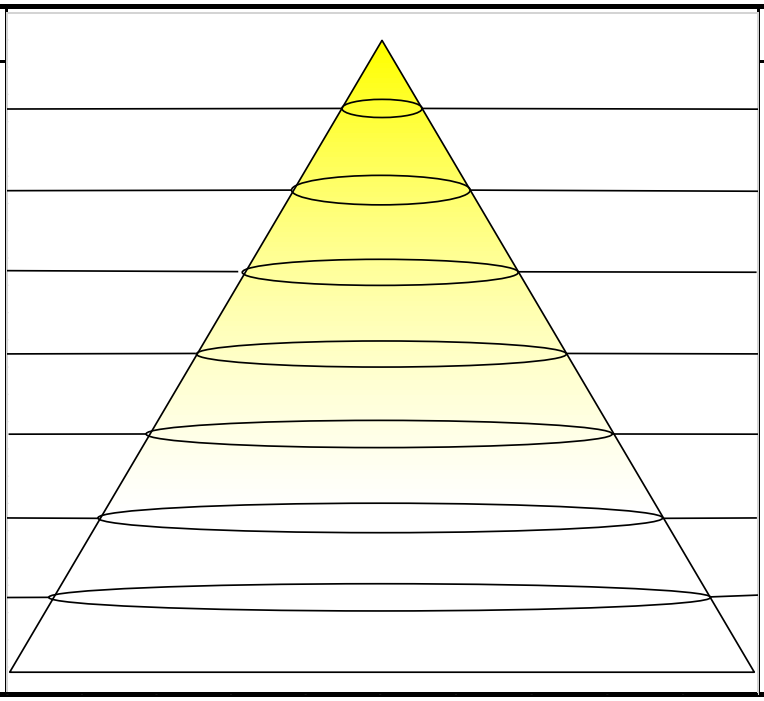
Vertical Angle (Degrees)	0	45	90
0	168	168	168
45	1800	2432	852
55	2429	3926	1171
65	2968	7072	1487
75	3802	19010	1943
85	9510	55110	4687

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	44	44	44	44	42	42	42	42	39	39	39	36	36	36	33	33	33	32
1	36	32	29	26	34	30	27	25	27	25	23	25	23	21	22	20	19	17
2	31	26	21	18	29	24	20	17	22	18	15	19	16	14	17	15	13	11
3	27	21	17	13	25	20	16	12	18	14	11	16	13	10	14	11	9	8
4	24	18	13	10	23	17	13	9	15	11	8	13	10	8	12	9	7	5
5	22	16	11	8	21	15	11	7	13	10	7	12	8	6	10	7	5	4
6	20	14	10	6	19	13	9	6	12	8	5	10	7	5	9	6	4	3
7	19	12	8	5	17	12	8	5	10	7	5	9	6	4	8	6	4	3
8	17	11	7	5	16	11	7	4	9	6	4	8	6	3	7	5	3	2
9	16	10	6	4	15	10	6	4	9	5	3	8	5	3	7	4	3	2
10	15	9	6	3	14	9	5	3	8	5	3	7	4	3	6	4	2	1

Beam and Field Information	
CIE Type:	Semi-Direct
Center Beam Intenisty:	0.77 Candela
Central Cone Intensity:	1 Candela
Beam Flux:	38.2 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

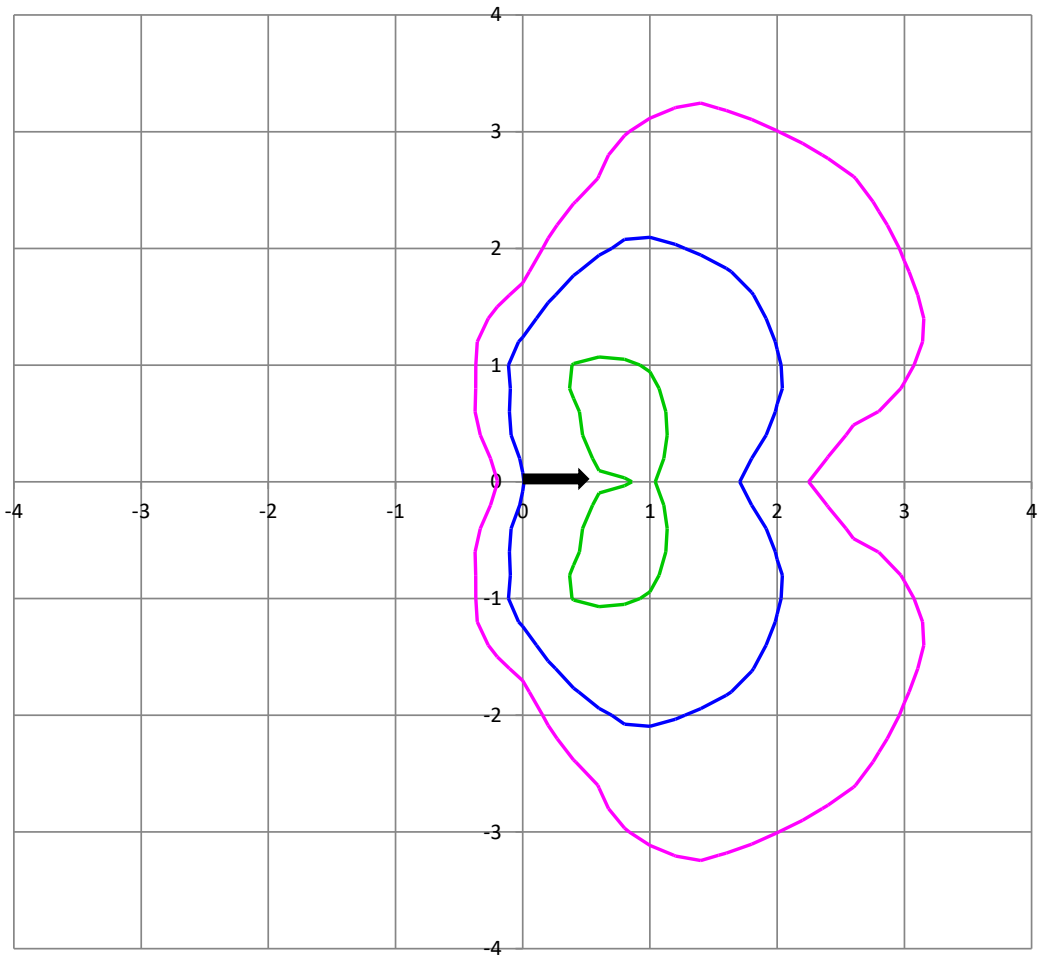
Cone of Light Tabulation



Mounting Height (Feet)	Footcandles at Nadir	Diameter (Feet)
4.00	0.0479	17.8
6.00	0.0213	26.7
8.00	0.0120	35.7
10.0	0.00767	44.6
12.0	0.00532	53.5
14.0	0.00391	62.4
16.0	0.00299	71.3

ISOFootcandle Plot

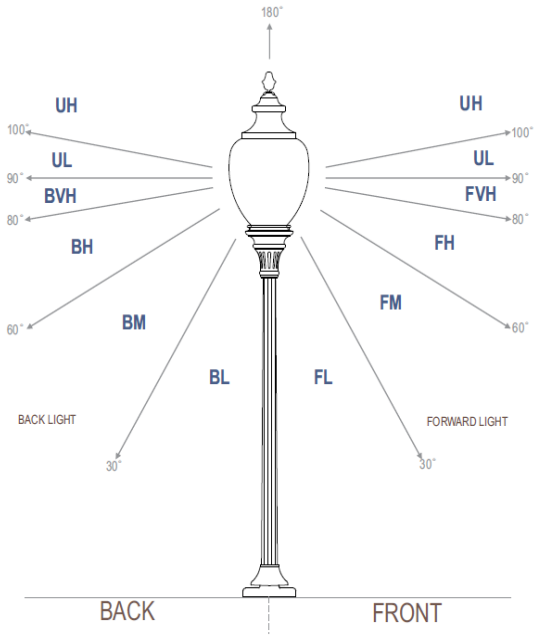
Mounting Height - 2 Feet



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)	0.8	2.1%
FM	(30-60)	7.1	18.3%
FH	(60-80)	13.6	35.3%
FVH	(80-90)	8.9	22.9%
BL	(0-30)	0.2	0.6%
BM	(30-60)	0.8	2.0%
BH	(60-80)	0.5	1.2%
BVH	(80-90)	0.1	0.3%
UL	(90-100)	5.5	14.2%
UH	(100-180)	1.2	3.1%
Total		38.7	100.0%
BUG Rating	**B0 U1 G0**		

Attachment A

Amended Report Documentation

Date of change	Description of Change
2021-06-28	Changed ISOfootcandle plot height to 2'