



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
LMWL-W-27 (40° OPTIC, 2700K)

Order Number
12043087
Test Number
12043087.08

Report Date

2018-02-13

Prepared By

Alexa Lambert, Project Handler

Approved By

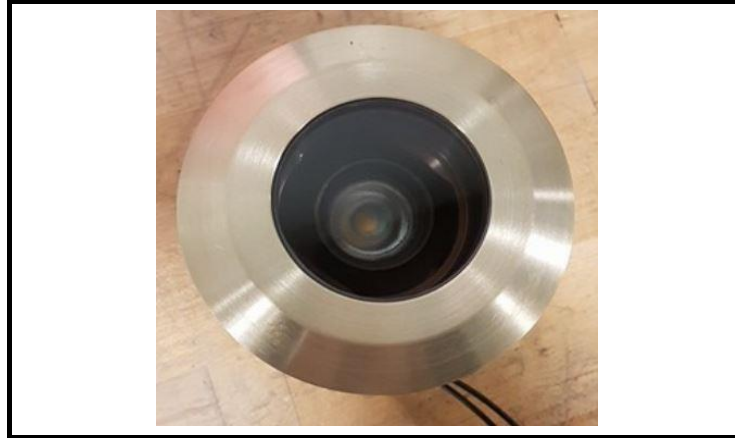
Kevin Rodriguez, Project Handler

The results contained in this report pertain only to the tested sample.
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Luminaire Description: Cylindrical brass housing with circular brass faceplate, clear glass lens and PVC sleeve
Lamp: One (1) Cree XP-L 2700K LED with 40° wide silicone optic
Mounting: Ground recessed
Ballast/Driver: Integrated
Note: This report has been pro-rated using data from report number 12043087.01, 12043087.02, 12043087.03, and 12043087.07 to account for differences in color temperature.

Luminaire



Luminaire Characteristics

Luminous Diameter: 2.00 in.

Summary of Results

Roadway Classification: Type V, Very Short
Cutoff Classification: Cutoff
BUG Rating: B0 U1 G0

Test Conditions

Test Temperature: 24.9 °C
Voltage: 11.99 VAC
Current: 0.4335 A
Power: 3.152 W
Power Factor: 0.607
Frequency: 60 Hz
Current THD: 80.4 %

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	11.99 VAC	0.4335 A	3.152 W	0.607	60 Hz	80.4 %

Summary of Results

Spacing Criteria

0-180: 0.68
90-270: 0.68

Total Lumen Output:

195.4 Lumens

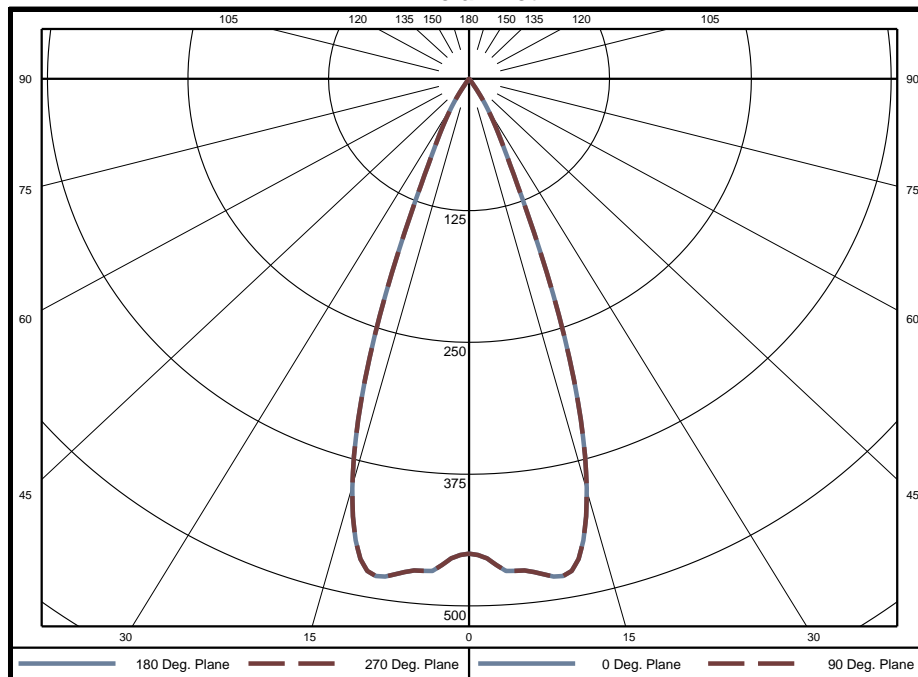
Luminaire Efficacy:

62.0 lm/w

Maximum Candela:

479 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	11.07	5.7%	60-65	0	0.0%	120-125	0	0.0%
5-10	33.91	17.4%	65-70	0	0.0%	125-130	0	0.0%
10-15	53.29	27.3%	70-75	0	0.0%	130-135	0	0.0%
15-20	51.37	26.3%	75-80	0	0.0%	135-140	0	0.0%
20-25	27.09	13.9%	80-85	0	0.0%	140-145	0	0.0%
25-30	12.75	6.5%	85-90	0	0.0%	145-150	0	0.0%
30-35	4.75	2.4%	90-95	0	0.0%	150-155	0	0.0%
35-40	0.86	0.4%	95-100	0	0.0%	155-160	0	0.0%
40-45	0.25	0.1%	100-105	0	0.0%	160-165	0	0.0%
45-50	0.04	0.0%	105-110	0	0.0%	165-170	0	0.0%
50-55	0	0.0%	110-115	0	0.0%	170-175	0	0.0%
55-60	0	0.0%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	195	99.8%
0-60	195	100.0%
0-90	195	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	450.4	450.4	450.4	450.4	450.4	450.4	450.4	450.4	450.4	450.4	450.4	450.4	450.4	450.4	450.4
	5	468.5	468.5	468.5	468.5	468.5	468.5	468.5	468.5	468.5	468.5	468.5	468.5	468.5	468.5	468.5
	10	478.8	478.8	478.8	478.8	478.8	478.8	478.8	478.8	478.8	478.8	478.8	478.8	478.8	478.8	478.8
	15	401.9	401.9	401.9	401.9	401.9	401.9	401.9	401.9	401.9	401.9	401.9	401.9	401.9	401.9	401.9
	20	217.0	217.0	217.0	217.0	217.0	217.0	217.0	217.0	217.0	217.0	217.0	217.0	217.0	217.0	217.0
	25	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5
	30	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0
	35	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
	40	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	45	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	60	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	70	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	80	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	105	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	110	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	115	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	125	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	135	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	155	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	160	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	165	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

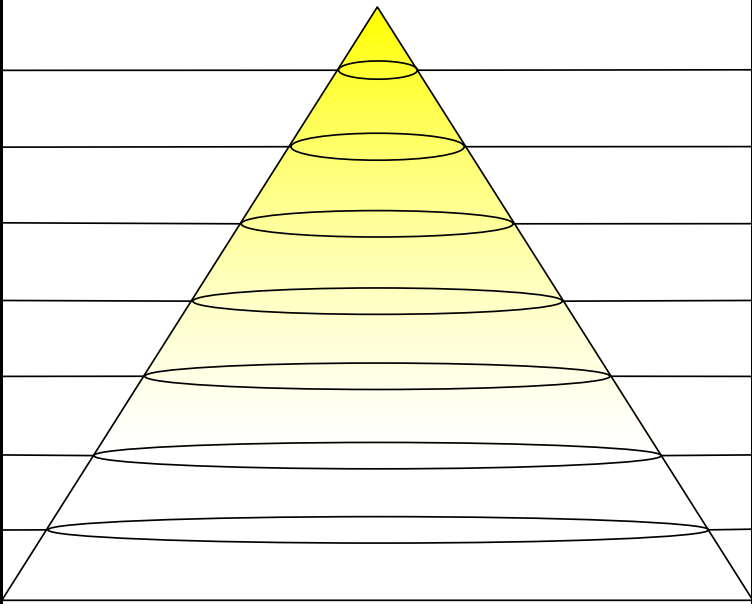
Vertical Angle (Degrees)	0	45	90
	0	222200	222200
	45	271	271
	55	0	0
	65	0	0
	75	0	0
	85	0	0



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	233	233	233	233	227	227	227	227	217	217	217	208	208	208	199	199	199	195
1	224	220	216	213	220	216	212	209	208	205	203	201	199	197	194	193	191	188
2	216	209	203	198	212	206	200	196	200	195	191	194	191	187	189	186	184	181
3	209	200	192	186	206	197	190	185	192	186	182	188	183	179	183	180	176	174
4	202	191	183	177	199	189	181	176	185	179	174	181	176	172	178	173	170	167
5	195	183	175	168	193	181	174	168	178	171	166	175	169	165	173	168	164	161
6	189	176	167	161	187	175	167	161	172	165	160	170	163	159	167	162	158	155
7	183	170	161	155	181	168	160	154	166	159	154	164	158	153	162	156	152	150
8	177	163	155	149	175	162	154	149	161	153	148	159	152	147	157	151	147	145
9	172	158	149	143	170	157	149	143	155	148	143	154	147	142	152	146	142	140
10	167	153	144	138	165	152	144	138	150	143	138	149	142	138	148	142	137	135

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	450.4 Candela
Central Cone Intensity:	459 Candela
Beam Flux:	148.4 Lumens
Beam Angle (0-180):	39.6 Degrees
Beam Angle (90-270):	39.6 Degrees
Field Angle (0-180):	56.2 Degrees
Field Angle (90-270):	56.2 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
6.00		12.5	4.10
10.0		4.50	6.83
14.0		2.30	9.56
18.0		1.39	12.3
22.0		0.931	15.0
26.0		0.666	17.7
30.0		0.500	20.5



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	94.8	48.5%
FM	(30-60)	3.0	1.5%
FH	(60-80)	0.0	0.0%
FVH	(80-90)	0.0	0.0%
BL	(0-30)	94.8	48.5%
BM	(30-60)	3.0	1.5%
BH	(60-80)	0.0	0.0%
BVH	(80-90)	0.0	0.0%
UL	(90-100)	0.0	0.0%
UH	(100-180)	0.0	0.0%
Total		195.5	100.0%
BUG Rating	B0 U1 G0		