



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-WF-27 (60° OPTIC, 2700K)

Order Number
12043087
Test Number
12043087.11

Report Date

2018-02-13

Prepared By

Alexa Lambert, Project Handler

Approved By

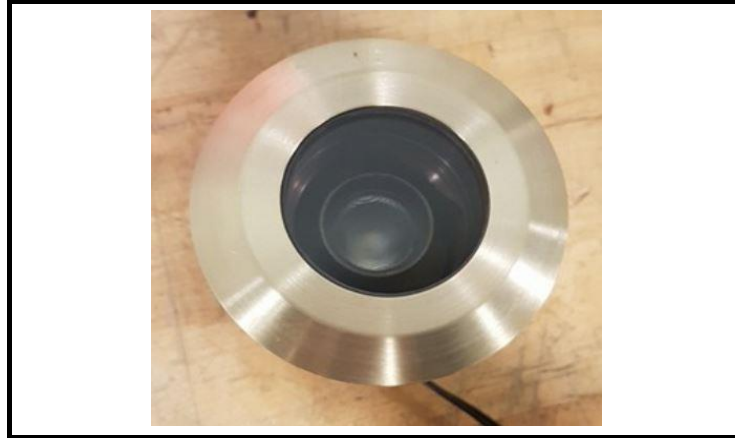
Kevin Rodriguez, Project Handler

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 60° wide flood 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 12043087.10 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: 25.1 °C
Voltage: 11.99 VAC
Current: 0.4331 A
Power: 3.139 W
Power Factor: 0.605
Frequency: 60 Hz
Current THD: 80.9 %

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
25.1 °C	11.99 VAC	0.4331 A	3.139 W	0.605	60 Hz	80.9 %

Summary of Results

Spacing Criteria

0-180: 1.04

90-270: 1.04

Total Lumen Output:

136.9 Lumens

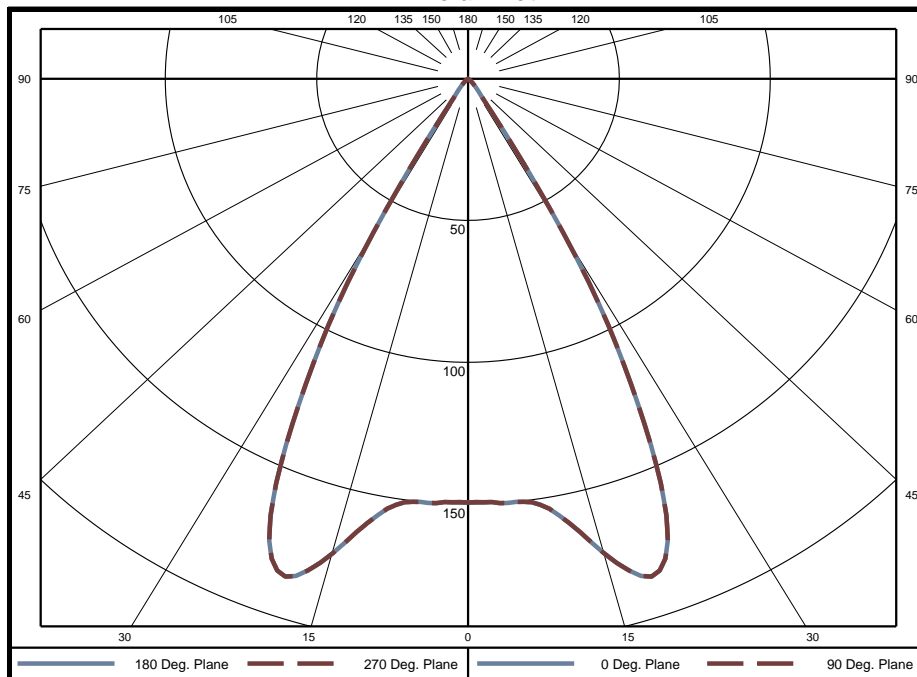
Luminaire Efficacy:

43.6 lm/w

Maximum Candela:

186 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	3.58	2.6%	60-65	0	0.0%	120-125	0	0.0%
5-10	10.82	7.9%	65-70	0	0.0%	125-130	0	0.0%
10-15	19.37	14.1%	70-75	0	0.0%	130-135	0	0.0%
15-20	29.98	21.9%	75-80	0	0.0%	135-140	0	0.0%
20-25	35.25	25.7%	80-85	0	0.0%	140-145	0	0.0%
25-30	26.25	19.2%	85-90	0	0.0%	145-150	0	0.0%
30-35	7.85	5.7%	90-95	0	0.0%	150-155	0	0.0%
35-40	1.98	1.4%	95-100	0	0.0%	155-160	0	0.0%
40-45	1.11	0.8%	100-105	0	0.0%	160-165	0	0.0%
45-50	0.56	0.4%	105-110	0	0.0%	165-170	0	0.0%
50-55	0.10	0.1%	110-115	0	0.0%	170-175	0	0.0%
55-60	0.00	0.0%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	135	98.7%
0-60	137	100.0%
0-90	137	100.0%
90-180	0	0.0%



Candela Tabulation
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	Horizontal 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	149.5	149.5	149.5	149.5	149.5	149.5	149.5	149.5	149.5	149.5	149.5	149.5	149.5	149.5	149.5
	5	150.2	150.2	150.2	150.2	150.2	150.2	150.2	150.2	150.2	150.2	150.2	150.2	150.2	150.2	150.2
	10	154.0	154.0	154.0	154.0	154.0	154.0	154.0	154.0	154.0	154.0	154.0	154.0	154.0	154.0	154.0
	15	173.3	173.3	173.3	173.3	173.3	173.3	173.3	173.3	173.3	173.3	173.3	173.3	173.3	173.3	173.3
	20	184.6	184.6	184.6	184.6	184.6	184.6	184.6	184.6	184.6	184.6	184.6	184.6	184.6	184.6	184.6
	25	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6	142.6
	30	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7
	35	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
	40	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
	45	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	2.1
	50	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
	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)

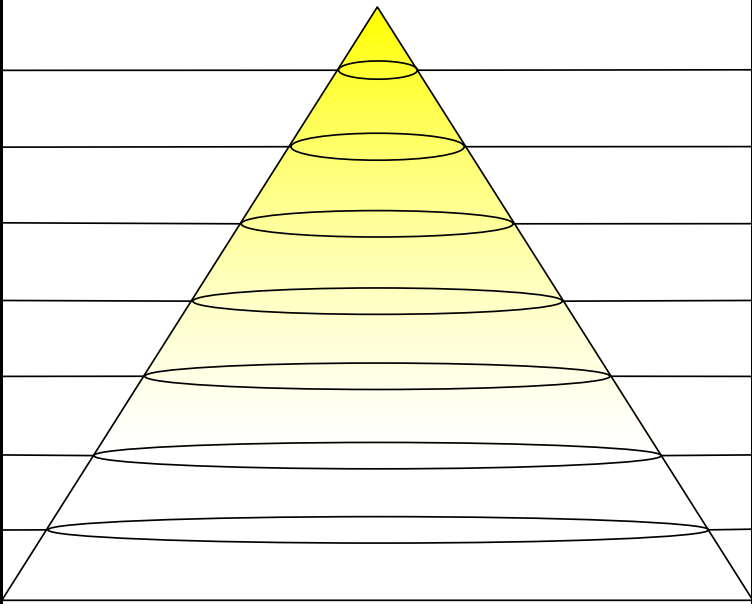
Vertical Angle (Degrees)	Horizontal Angle (Degrees)			
	0	45	90	
	0	73740	73740	73740
	45	1489	1489	1489
	55	32	32	32
	65	0	0	0
	75	0	0	0
	85	0	0	0



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	163	163	163	163	159	159	159	159	152	152	152	146	146	146	140	140	140	137
1	156	153	150	147	153	150	147	144	144	142	140	139	137	136	135	133	132	130
2	149	143	138	134	146	141	137	133	137	133	130	133	130	127	129	127	124	122
3	143	135	129	124	140	133	128	123	130	125	121	126	123	119	123	120	117	115
4	137	127	121	116	134	126	120	115	123	118	114	120	116	112	118	114	111	109
5	131	121	113	108	129	119	113	108	117	111	107	115	110	106	113	108	105	103
6	125	114	107	102	123	113	106	101	111	105	101	109	104	100	108	103	99	97
7	120	108	101	96	118	107	100	95	106	99	95	104	99	94	103	98	94	92
8	115	103	95	90	113	102	95	90	101	94	90	99	94	89	98	93	89	87
9	110	98	90	85	108	97	90	85	96	90	85	95	89	85	94	88	85	83
10	105	93	86	81	104	92	86	81	91	85	81	90	85	81	89	84	80	79

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	149.5 Candela
Central Cone Intensity:	150 Candela
Beam Flux:	122.8 Lumens
Beam Angle (0-180):	58.8 Degrees
Beam Angle (90-270):	58.8 Degrees
Field Angle (0-180):	66.9 Degrees
Field Angle (90-270):	66.9 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
6.00		4.15	6.23
10.0		1.49	10.4
14.0		0.763	14.5
18.0		0.461	18.7
22.0		0.309	22.8
26.0		0.221	27.0
30.0		0.166	31.1



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	62.4	45.6%
FM	(30-60)	6.1	4.4%
FH	(60-80)	0.0	0.0%
FVH	(80-90)	0.0	0.0%
BL	(0-30)	62.4	45.6%
BM	(30-60)	6.1	4.4%
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		137.0	100.0%
BUG Rating	B0 U1 G0		