



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-30 (40° OPTIC, 3000K)

Order Number
12043087
Test Number
12043087.07

Test Date

2018-02-13

Prepared By

Samuel DePue, Technician

Approved By

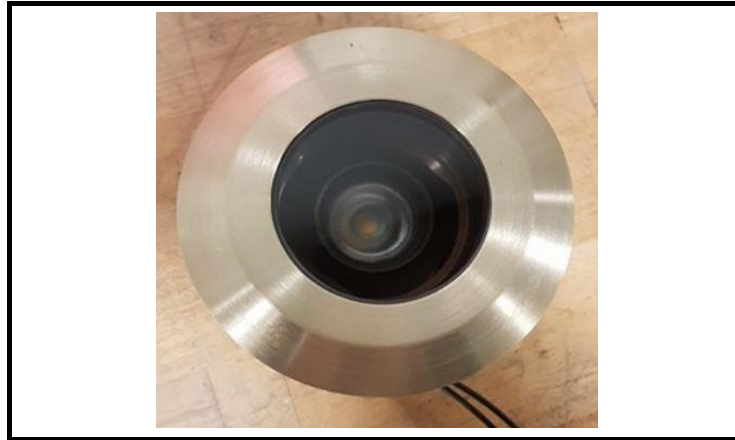
Alexa Lambert, Project Handler

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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 3000K LED with 40° wide silicone optic
Mounting: Ground recessed
Ballast/Driver: Integrated

Luminaire



Luminaire Characteristics

Luminous Diameter: 2.00 in.

Summary of Results

Roadway Classification: Type V, Very Short
Cutoff Classification: Full Cutoff
BUG Rating: B0 U0 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:

192.3 Lumens

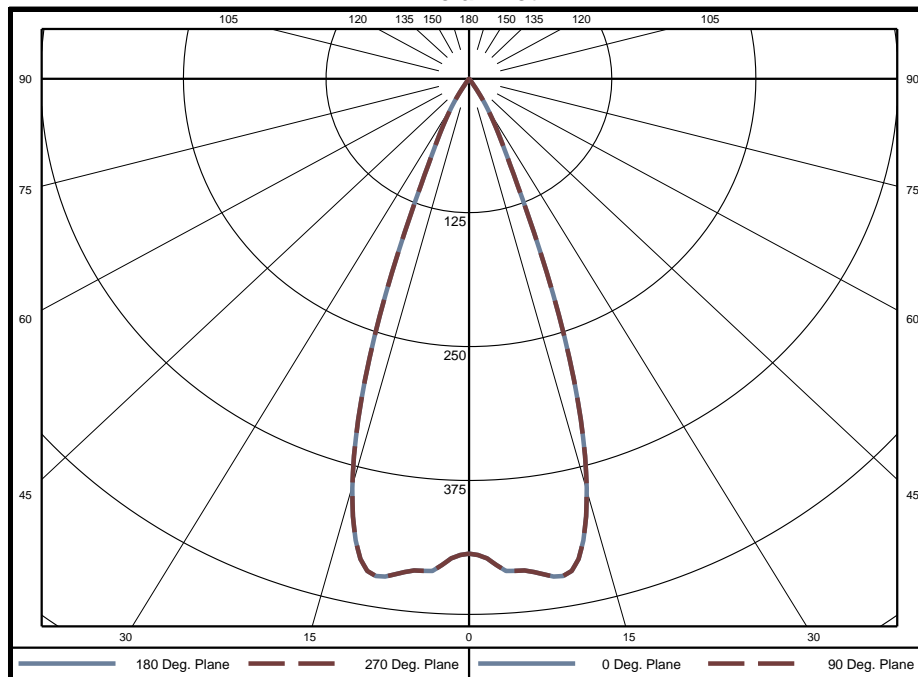
Luminaire Efficacy:

61.0 lm/w

Maximum Candela:

471 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	10.89	5.7%	60-65	0	0.0%	120-125	0	0.0%
5-10	33.37	17.4%	65-70	0	0.0%	125-130	0	0.0%
10-15	52.45	27.3%	70-75	0	0.0%	130-135	0	0.0%
15-20	50.55	26.3%	75-80	0	0.0%	135-140	0	0.0%
20-25	26.66	13.9%	80-85	0	0.0%	140-145	0	0.0%
25-30	12.55	6.5%	85-90	0	0.0%	145-150	0	0.0%
30-35	4.68	2.4%	90-95	0	0.0%	150-155	0	0.0%
35-40	0.85	0.4%	95-100	0	0.0%	155-160	0	0.0%
40-45	0.24	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	192	99.8%
0-60	192	100.0%
0-90	192	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	443.2	443.2	443.2	443.2	443.2	443.2	443.2	443.2	443.2	443.2	443.2	443.2	443.2	443.2	443.2
	5	461.0	461.0	461.0	461.0	461.0	461.0	461.0	461.0	461.0	461.0	461.0	461.0	461.0	461.0	461.0
	10	471.2	471.2	471.2	471.2	471.2	471.2	471.2	471.2	471.2	471.2	471.2	471.2	471.2	471.2	471.2
	15	395.5	395.5	395.5	395.5	395.5	395.5	395.5	395.5	395.5	395.5	395.5	395.5	395.5	395.5	395.5
	20	213.6	213.6	213.6	213.6	213.6	213.6	213.6	213.6	213.6	213.6	213.6	213.6	213.6	213.6	213.6
	25	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3
	30	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5
	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	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	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	218700	218700
	45	267	267
	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	229	229	229	229	224	224	224	224	214	214	214	205	205	205	196	196	196	192
1	221	217	213	209	216	212	209	206	205	202	200	198	196	194	191	190	188	185
2	213	206	200	195	209	203	197	193	197	192	188	191	188	184	186	183	181	178
3	206	196	189	183	202	194	187	182	189	184	179	185	180	176	181	177	174	171
4	199	188	180	174	196	186	178	173	182	176	171	178	173	169	175	171	167	165
5	192	180	172	166	190	179	171	165	175	169	164	173	167	162	170	165	161	159
6	186	173	165	159	184	172	164	158	169	162	157	167	161	156	165	159	155	153
7	180	167	158	152	178	166	158	152	164	156	151	161	155	150	160	154	150	148
8	174	161	152	146	172	160	152	146	158	151	146	156	150	145	155	149	145	143
9	169	155	147	141	167	154	146	141	153	146	141	151	145	140	150	144	140	138
10	164	150	142	136	162	149	141	136	148	141	136	147	140	135	146	140	135	133

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	443.2 Candela
Central Cone Intensity:	452 Candela
Beam Flux:	146.0 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		12.3	4.10
10.0		4.43	6.83
14.0		2.26	9.56
18.0		1.37	12.3
22.0		0.916	15.0
26.0		0.656	17.7
30.0		0.492	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)	93.3	48.5%
FM	(30-60)	2.9	1.5%
FH	(60-80)	0.0	0.0%
FVH	(80-90)	0.0	0.0%
BL	(0-30)	93.3	48.5%
BM	(30-60)	2.9	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		192.3	100.0%
BUG Rating	B0 U0 G0		