



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-M-40 (25° OPTIC, 4000K)

Order Number
12043087
Test Number
12043087.03

Test Date

2018-02-12

Prepared By

Samuel DePue, Technician

Approved By

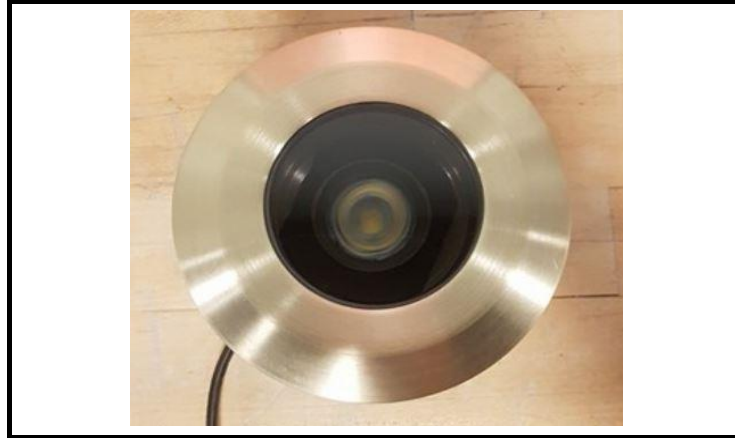
Alexa Lambert, Project Handler

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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 4000K LED with 25° medium 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: 0.4192 A
Power: 3.047 W
Power Factor: 0.606
Frequency: 60 Hz
Current THD: 82.5 %

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	0.4192 A	3.047 W	0.606	60 Hz	82.5 %

Summary of Results

Spacing Criteria

0-180: 0.43
90-270: 0.43

Total Lumen Output:

210.0 Lumens

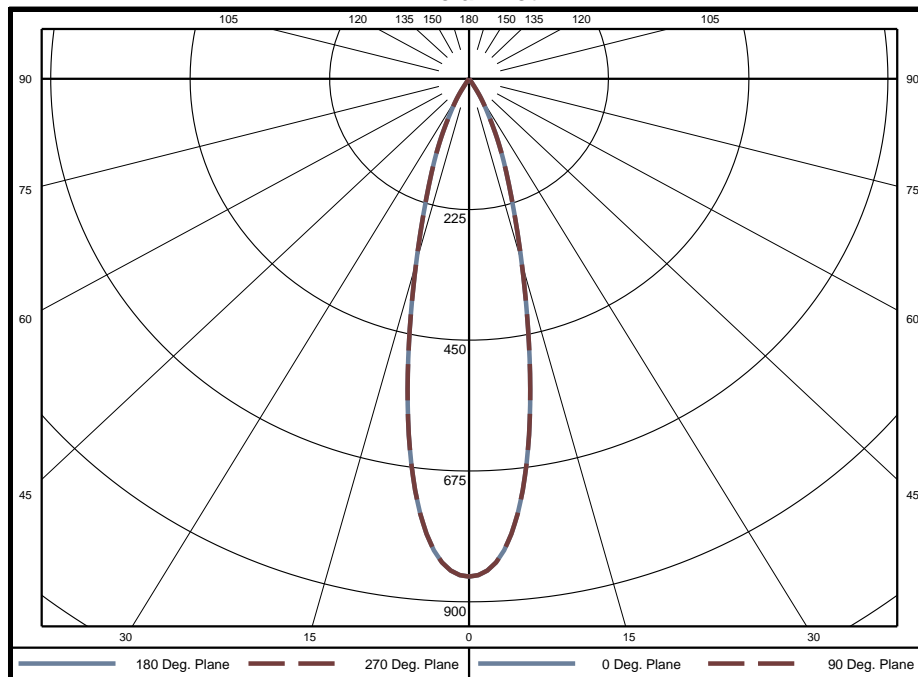
Luminaire Efficacy:

68.9 lm/w

Maximum Candela:

856 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	19.67	9.4%	60-65	0	0.0%	120-125	0	0.0%
5-10	48.28	23.0%	65-70	0	0.0%	125-130	0	0.0%
10-15	51.80	24.7%	70-75	0	0.0%	130-135	0	0.0%
15-20	40.41	19.2%	75-80	0	0.0%	135-140	0	0.0%
20-25	28.28	13.5%	80-85	0	0.0%	140-145	0	0.0%
25-30	15.85	7.5%	85-90	0	0.0%	145-150	0	0.0%
30-35	5.11	2.4%	90-95	0	0.0%	150-155	0	0.0%
35-40	0.60	0.3%	95-100	0	0.0%	155-160	0	0.0%
40-45	0.02	0.0%	100-105	0	0.0%	160-165	0	0.0%
45-50	0	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	210	100.0%
0-60	210	100.0%
0-90	210	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	856.4	856.4	856.4	856.4	856.4	856.4	856.4	856.4	856.4	856.4	856.4	856.4	856.4	856.4	856.4
	5	785.9	785.9	785.9	785.9	785.9	785.9	785.9	785.9	785.9	785.9	785.9	785.9	785.9	785.9	785.9
	10	569.2	569.2	569.2	569.2	569.2	569.2	569.2	569.2	569.2	569.2	569.2	569.2	569.2	569.2	569.2
	15	329.8	329.8	329.8	329.8	329.8	329.8	329.8	329.8	329.8	329.8	329.8	329.8	329.8	329.8	329.8
	20	182.2	182.2	182.2	182.2	182.2	182.2	182.2	182.2	182.2	182.2	182.2	182.2	182.2	182.2	182.2
	25	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9
	30	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2
	35	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
	40	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	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	422500	422500
	45	0	0
	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	250	250	250	250	244	244	244	244	233	233	233	223	223	223	214	214	214	210
1	242	237	233	229	237	233	229	226	224	221	219	217	214	212	209	208	206	203
2	234	226	220	214	229	222	217	212	216	211	207	210	206	203	204	201	199	196
3	226	216	209	202	222	213	206	201	208	202	198	203	199	195	199	195	192	189
4	219	207	199	193	216	205	198	192	201	195	189	197	192	187	194	189	185	183
5	212	200	191	185	209	198	190	184	195	188	182	191	185	181	188	183	179	177
6	206	193	184	177	203	191	183	177	188	181	176	186	179	175	183	178	174	171
7	200	186	177	171	198	185	177	171	183	175	170	180	174	169	178	173	168	166
8	194	180	171	165	192	179	171	165	177	170	164	175	169	164	174	168	163	161
9	189	175	166	160	187	174	165	160	172	165	159	170	164	159	169	163	158	156
10	184	169	161	155	182	169	160	155	167	160	155	166	159	154	165	158	154	152

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	856.4 Candela
Central Cone Intensity:	832 Candela
Beam Flux:	97.4 Lumens
Beam Angle (0-180):	25.5 Degrees
Beam Angle (90-270):	25.5 Degrees
Field Angle (0-180):	51.1 Degrees
Field Angle (90-270):	51.1 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
6.00		23.8	2.58
10.0		8.56	4.31
14.0		4.37	6.03
18.0		2.64	7.75
22.0		1.77	9.48
26.0		1.27	11.2
30.0		0.952	12.9



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	102.1	48.6%
FM	(30-60)	2.9	1.4%
FH	(60-80)	0.0	0.0%
FVH	(80-90)	0.0	0.0%
BL	(0-30)	102.1	48.6%
BM	(30-60)	2.9	1.4%
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		210.1	100.0%
BUG Rating	B0 U0 G0		