



UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
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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-30 (25° OPTIC, 3000K)

Order Number
12043087
Test Number
12043087.01

Test Date

2018-02-12

Prepared By

Samuel DePue, Technician

Approved By

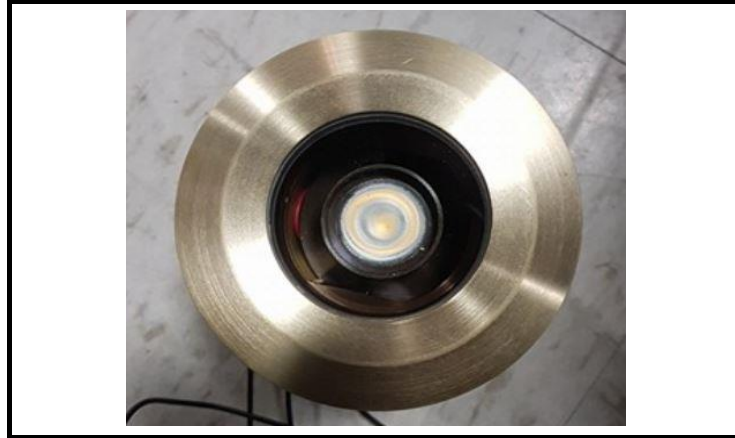
Alexa Lambert, Project Handler

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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 3000K 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: 24.8 °C
Voltage: 11.99 VAC
Current: 0.4332 A
Power: 3.146 W
Power Factor: 0.606
Frequency: 60 Hz
Current THD: 80.7 %

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
24.8 °C	11.99 VAC	0.4332 A	3.146 W	0.606	60 Hz	80.7 %

Summary of Results

Spacing Criteria

0-180: 0.40

90-270: 0.40

Total Lumen Output:

192.0 Lumens

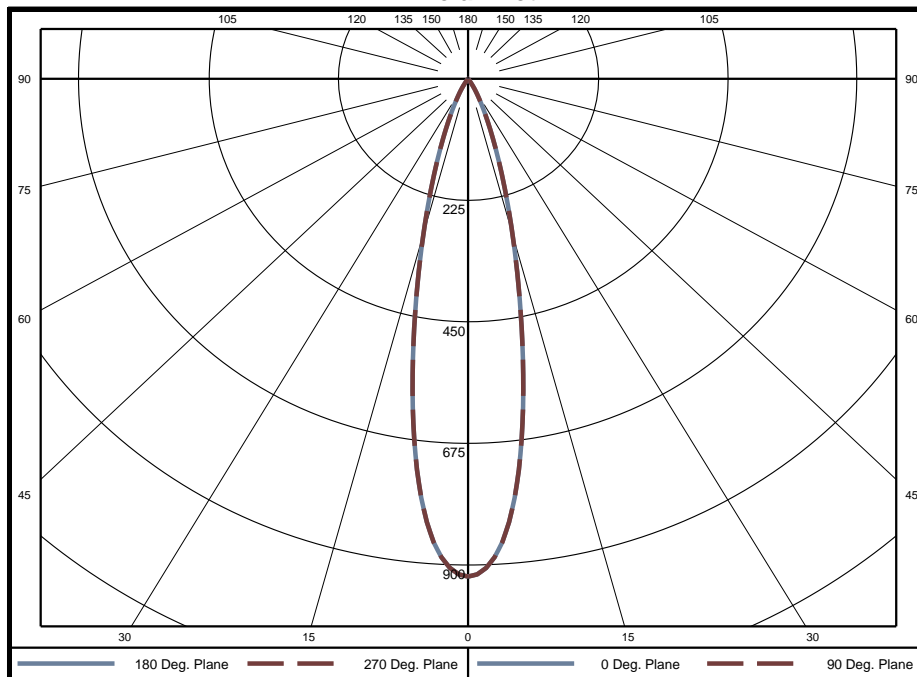
Luminaire Efficacy:

61.0 lm/w

Maximum Candela:

921 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	20.87	10.9%	60-65	0	0.0%	120-125	0	0.0%
5-10	48.86	25.4%	65-70	0	0.0%	125-130	0	0.0%
10-15	49.02	25.5%	70-75	0	0.0%	130-135	0	0.0%
15-20	35.39	18.4%	75-80	0	0.0%	135-140	0	0.0%
20-25	21.36	11.1%	80-85	0	0.0%	140-145	0	0.0%
25-30	11.24	5.9%	85-90	0	0.0%	145-150	0	0.0%
30-35	4.47	2.3%	90-95	0	0.0%	150-155	0	0.0%
35-40	0.77	0.4%	95-100	0	0.0%	155-160	0	0.0%
40-45	0.03	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	0.00	0.0%
55-60	0	0.0%	115-120	0	0.0%	175-180	0.00	0.0%

Zone	Lumens	% of Luminaire
0-40	192	100.0%
0-60	192	100.0%
0-90	192	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	921.2	921.2	921.2	921.2	921.2	921.2	921.2	921.2	921.2	921.2	921.2	921.2	921.2	921.2	921.2
	5	823.4	823.4	823.4	823.4	823.4	823.4	823.4	823.4	823.4	823.4	823.4	823.4	823.4	823.4	823.4
	10	555.3	555.3	555.3	555.3	555.3	555.3	555.3	555.3	555.3	555.3	555.3	555.3	555.3	555.3	555.3
	15	302.4	302.4	302.4	302.4	302.4	302.4	302.4	302.4	302.4	302.4	302.4	302.4	302.4	302.4	302.4
	20	148.2	148.2	148.2	148.2	148.2	148.2	148.2	148.2	148.2	148.2	148.2	148.2	148.2	148.2	148.2
	25	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4
	30	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4
	35	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
	40	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
	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)	Horizontal Angle (Degrees)		
	0	45	90
	0	454500	454500
	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	229	229	229	229	223	223	223	223	213	213	213	204	204	204	196	196	196	192
1	221	217	213	210	216	213	210	207	205	203	201	198	196	195	192	190	189	186
2	214	207	202	197	210	204	199	195	198	194	191	193	189	187	188	185	183	180
3	207	199	192	187	204	196	190	185	191	186	182	187	183	180	183	180	177	174
4	201	191	184	178	198	189	182	177	185	180	175	182	177	173	179	175	171	169
5	195	184	177	171	193	183	176	170	180	174	169	177	172	168	174	170	166	164
6	190	178	171	165	188	177	170	164	174	168	163	172	167	162	170	165	161	159
7	185	173	165	159	183	172	164	159	170	163	158	168	162	158	166	161	157	155
8	180	168	160	155	178	167	159	154	165	158	154	163	157	153	162	156	153	151
9	175	163	155	150	174	162	155	150	161	154	149	159	153	149	158	152	149	147
10	171	158	151	146	169	158	151	146	156	150	145	155	149	145	154	149	145	143

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	921.2 Candela
Central Cone Intensity:	887 Candela
Beam Flux:	86.9 Lumens
Beam Angle (0-180):	23.3 Degrees
Beam Angle (90-270):	23.3 Degrees
Field Angle (0-180):	46.1 Degrees
Field Angle (90-270):	46.1 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
6.00		25.6	2.37
10.0		9.21	3.95
14.0		4.70	5.53
18.0		2.84	7.11
22.0		1.90	8.69
26.0		1.36	10.3
30.0		1.02	11.9



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	93.4	48.6%
FM	(30-60)	2.7	1.4%
FH	(60-80)	0.0	0.0%
FVH	(80-90)	0.0	0.0%
BL	(0-30)	93.4	48.6%
BM	(30-60)	2.7	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		192.1	100.0%
BUG Rating	B0 U0 G0		