



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-30 (60° OPTIC, 3000K)

Order Number
12043087
Test Number
12043087.10

Test Date

2018-02-13

Prepared By

Samuel DePue, Technician

Approved By

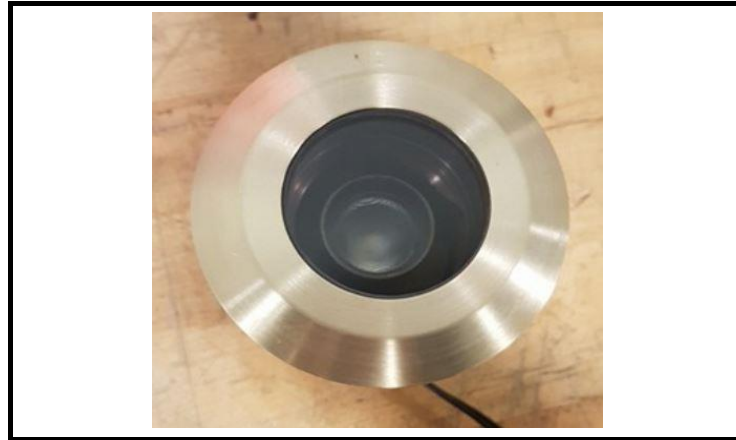
Alexa Lambert, Project Handler

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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 60° wide flood 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: 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:

134.7 Lumens

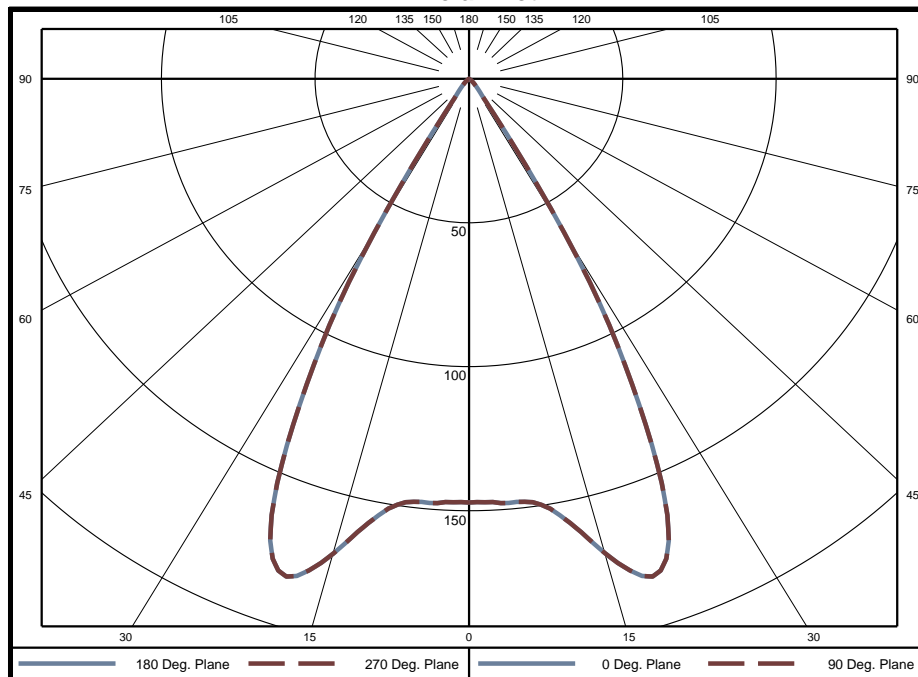
Luminaire Efficacy:

42.9 lm/w

Maximum Candela:

183 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	3.52	2.6%	60-65	0	0.0%	120-125	0	0.0%
5-10	10.65	7.9%	65-70	0	0.0%	125-130	0	0.0%
10-15	19.07	14.2%	70-75	0	0.0%	130-135	0	0.0%
15-20	29.50	21.9%	75-80	0	0.0%	135-140	0	0.0%
20-25	34.69	25.8%	80-85	0	0.0%	140-145	0	0.0%
25-30	25.83	19.2%	85-90	0	0.0%	145-150	0	0.0%
30-35	7.72	5.7%	90-95	0	0.0%	150-155	0	0.0%
35-40	1.95	1.4%	95-100	0	0.0%	155-160	0	0.0%
40-45	1.09	0.8%	100-105	0	0.0%	160-165	0	0.0%
45-50	0.55	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	133	98.7%
0-60	135	100.0%
0-90	135	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	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1
	5	147.8	147.8	147.8	147.8	147.8	147.8	147.8	147.8	147.8	147.8	147.8	147.8	147.8	147.8	147.8
	10	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5
	15	170.6	170.6	170.6	170.6	170.6	170.6	170.6	170.6	170.6	170.6	170.6	170.6	170.6	170.6	170.6
	20	181.7	181.7	181.7	181.7	181.7	181.7	181.7	181.7	181.7	181.7	181.7	181.7	181.7	181.7	181.7
	25	140.3	140.3	140.3	140.3	140.3	140.3	140.3	140.3	140.3	140.3	140.3	140.3	140.3	140.3	140.3
	30	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7
	35	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
	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)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	72570	72570
	45	1465	1465
	55	31	31
	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	160	160	160	160	157	157	157	157	150	150	150	143	143	143	137	137	137	135
1	154	150	147	144	150	147	145	142	142	140	138	137	135	134	132	131	130	127
2	147	141	136	132	144	139	134	131	135	131	128	131	128	125	127	125	123	120
3	141	133	127	122	138	131	126	121	128	123	119	124	121	117	121	118	116	114
4	135	125	119	114	132	124	118	113	121	116	112	119	114	110	116	112	109	107
5	129	119	112	106	127	117	111	106	115	109	105	113	108	104	111	107	103	101
6	123	112	105	100	121	111	105	100	109	103	99	108	102	98	106	101	98	96
7	118	107	99	94	116	106	99	94	104	98	93	102	97	93	101	96	92	91
8	113	101	94	89	111	100	94	89	99	93	88	98	92	88	96	91	88	86
9	108	96	89	84	107	96	89	84	94	88	84	93	88	83	92	87	83	82
10	103	92	84	80	102	91	84	80	90	84	79	89	83	79	88	83	79	77

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	147.1 Candela
Central Cone Intensity:	147 Candela
Beam Flux:	120.9 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		4.09	6.23
10.0		1.47	10.4
14.0		0.750	14.5
18.0		0.454	18.7
22.0		0.304	22.8
26.0		0.218	27.0
30.0		0.163	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)	61.4	45.6%
FM	(30-60)	5.9	4.4%
FH	(60-80)	0.0	0.0%
FVH	(80-90)	0.0	0.0%
BL	(0-30)	61.4	45.6%
BM	(30-60)	5.9	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		134.7	100.0%
BUG Rating	B0 U0 G0		