



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
LWL2-2-M-30 (2W, 25° OPTIC, 3000K)

Order Number
13551695
Test Number
13551695.10

Test Date

2020-11-18

Prepared By

Cordaryl Cousar, Technician

Approved By

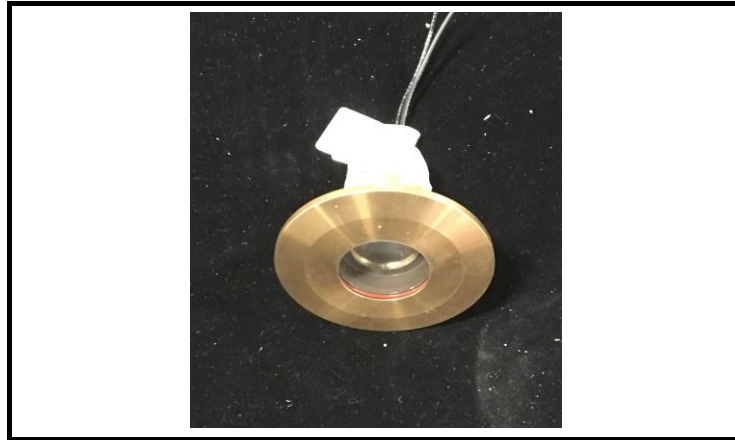
Alexa Lambert, Project Handler

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Luminaire Description: Cylindrical brass housing with circular brass faceplate and clear lens
Lamp: One (1) XHP35 3000K Cree LED
Mounting: Recessed
Ballast/Driver: Integrated

Luminaire



Luminaire Characteristics

Luminous Diameter: 1.25 in.

Summary of Results

Roadway Classification: Type V, Very Short
Cutoff Classification: Cutoff
BUG Rating: B0 U1 G0

Test Conditions

Test Temperature: 24.5 °C
Voltage: 12.01 VAC
Current: 0.1668 A
Power: 1.886 W
Power Factor: 0.941
Frequency: 60 Hz
Current THD: 21.5 %

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
24.5 °C	12.01 VAC	0.1668 A	1.886 W	0.941	60 Hz	21.5 %

Summary of Results

Spacing Criteria

0-180: 0.43
90-270: 0.43

Total Lumen Output:

141.1 Lumens

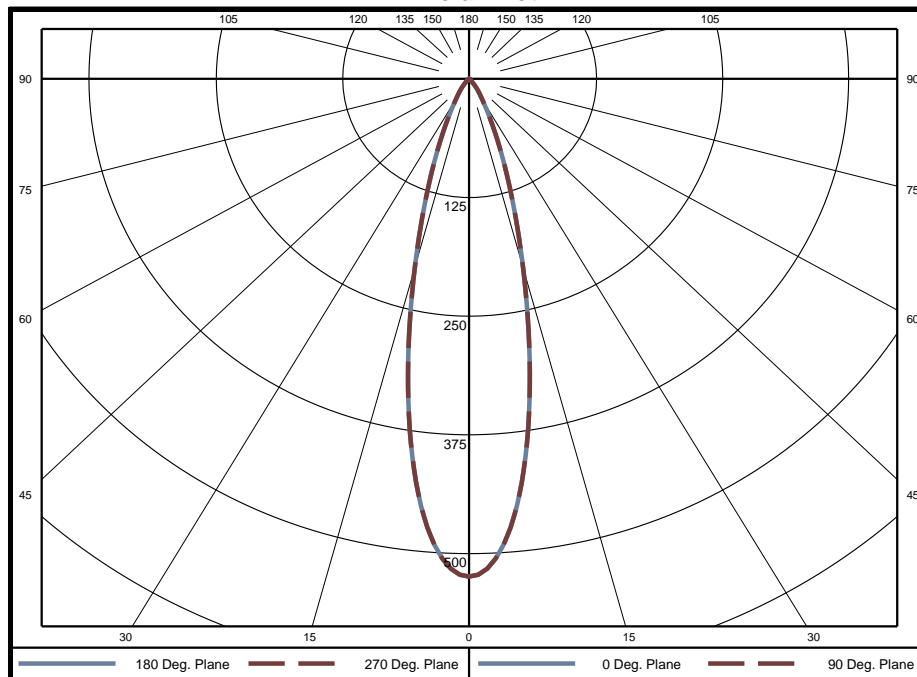
Luminaire Efficacy:

74.8 lm/w

Maximum Candela:

524 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	11.93	8.5%	60-65	0.49	0.3%	120-125	0	0.0%
5-10	29.06	20.6%	65-70	0.35	0.2%	125-130	0	0.0%
10-15	31.94	22.6%	70-75	0.24	0.2%	130-135	0	0.0%
15-20	25.34	18.0%	75-80	0.15	0.1%	135-140	0	0.0%
20-25	17.06	12.1%	80-85	0.06	0.0%	140-145	0	0.0%
25-30	10.30	7.3%	85-90	0.02	0.0%	145-150	0	0.0%
30-35	6.25	4.4%	90-95	0.00	0.0%	150-155	0	0.0%
35-40	3.75	2.7%	95-100	0	0.0%	155-160	0	0.0%
40-45	1.68	1.2%	100-105	0	0.0%	160-165	0	0.0%
45-50	1.02	0.7%	105-110	0	0.0%	165-170	0	0.0%
50-55	0.79	0.6%	110-115	0	0.0%	170-175	0	0.0%
55-60	0.63	0.4%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	136	96.1%
0-60	140	99.0%
0-90	141	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	524.1	524.1	524.1	524.1	524.1	524.1	524.1	524.1	524.1	524.1	524.1	524.1	524.1	524.1	524.1	524.1
5	473.7	473.7	473.7	473.7	473.7	473.7	473.7	473.7	473.7	473.7	473.7	473.7	473.7	473.7	473.7	473.7
10	344.6	344.6	344.6	344.6	344.6	344.6	344.6	344.6	344.6	344.6	344.6	344.6	344.6	344.6	344.6	344.6
15	207.2	207.2	207.2	207.2	207.2	207.2	207.2	207.2	207.2	207.2	207.2	207.2	207.2	207.2	207.2	207.2
20	112.3	112.3	112.3	112.3	112.3	112.3	112.3	112.3	112.3	112.3	112.3	112.3	112.3	112.3	112.3	112.3
25	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3
30	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4
35	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
40	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
45	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
50	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	2.1
55	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
60	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	1.2	1.2
65	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
70	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	0.6
75	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	0.4
80	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	0.0

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	Horizontal Angle (Degrees)		
	0	45	90
0	662000	662000	662000
45	5458	5458	5458
55	3458	3458	3458
65	2513	2513	2513
75	1804	1804	1804
85	932	932	932



Utilization of Lumens - Zonal Cavity Method

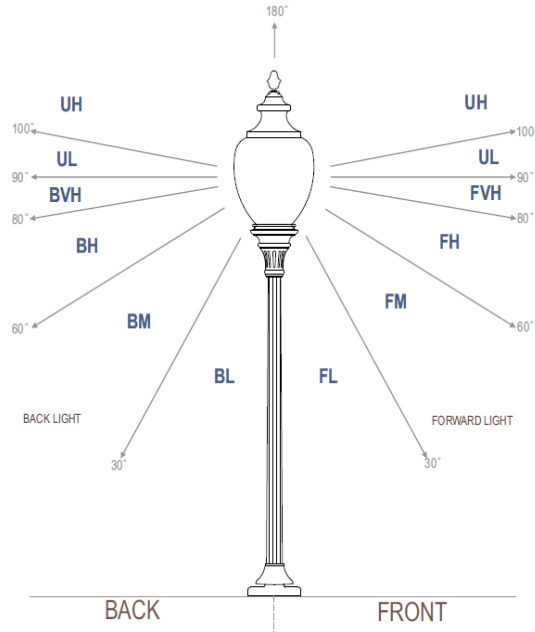
Effective Floor Cavity Reflectance 20%																	
Ceiling Cavity Reflectance	80				70				50			30			10		
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																
0	168	168	168	168	164	164	164	164	157	157	157	150	150	150	144	144	144
1	162	158	155	153	158	155	153	150	150	148	146	144	143	141	140	138	137
2	155	150	145	141	153	147	143	140	143	140	137	139	136	134	135	133	131
3	150	142	137	132	147	141	135	131	137	133	129	134	130	127	131	128	125
4	144	136	130	125	142	134	129	124	132	127	123	129	125	121	126	123	120
5	139	130	124	119	137	129	123	118	127	121	117	124	120	116	122	118	115
6	135	125	118	114	133	124	118	113	122	116	112	120	115	112	118	114	111
7	130	120	113	109	129	119	113	109	118	112	108	116	111	108	115	110	107
8	126	116	109	105	125	115	109	105	114	108	104	112	107	104	111	107	103
9	122	112	105	101	121	111	105	101	110	104	100	109	104	100	108	103	100
10	118	108	102	98	117	107	101	97	106	101	97	106	100	97	105	100	97

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	524.1 Candela
Central Cone Intensity:	506 Candela
Beam Flux:	59.6 Lumens
Beam Angle (0-180):	25.7 Degrees
Beam Angle (90-270):	25.7 Degrees
Field Angle (0-180):	51.3 Degrees
Field Angle (90-270):	51.3 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
6.00		14.6	2.60
10.0		5.24	4.33
14.0		2.67	6.06
18.0		1.62	7.79
22.0		1.08	9.52
26.0		0.775	11.2
30.0		0.582	13.0



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	62.9	44.5%
FM	(30-60)	7.1	5.0%
FH	(60-80)	0.6	0.4%
FVH	(80-90)	0.0	0.0%
BL	(0-30)	62.9	44.5%
BM	(30-60)	7.1	5.0%
BH	(60-80)	0.6	0.4%
BVH	(80-90)	0.0	0.0%
UL	(90-100)	0.0	0.0%
UH	(100-180)	0.0	0.0%
Total		141.3	100.0%
BUG Rating	B0 U1 G0		