



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-N-30 (2W, 15° OPTIC, 3000K)

Order Number
13551695
Test Number
13551695.09

Test Date

2020-11-18

Prepared By

Cordaryl Cousar, Technician

Approved By

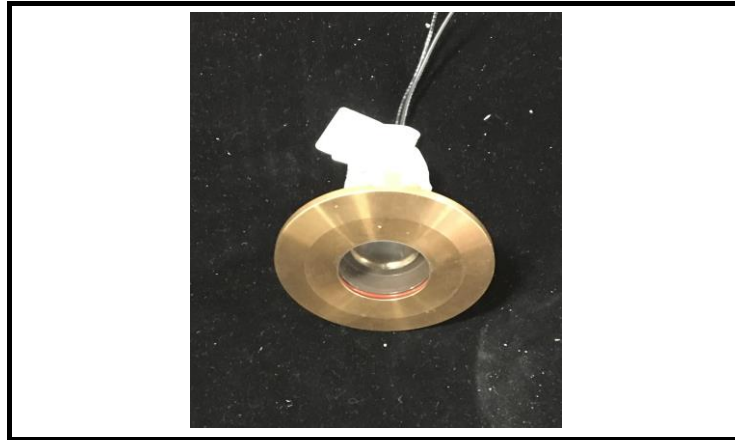
Alexa Lambert, Project Handler

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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: 24.6 °C
Voltage: 12.02 VAC
Current: 0.1666 A
Power: 1.885 W
Power Factor: 0.942
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
24.6 °C	12.02 VAC	0.1666 A	1.885 W	0.942	60 Hz	21.5 %

Summary of Results

Spacing Criteria

0-180: 0.32
90-270: 0.32

Total Lumen Output:

135.6 Lumens

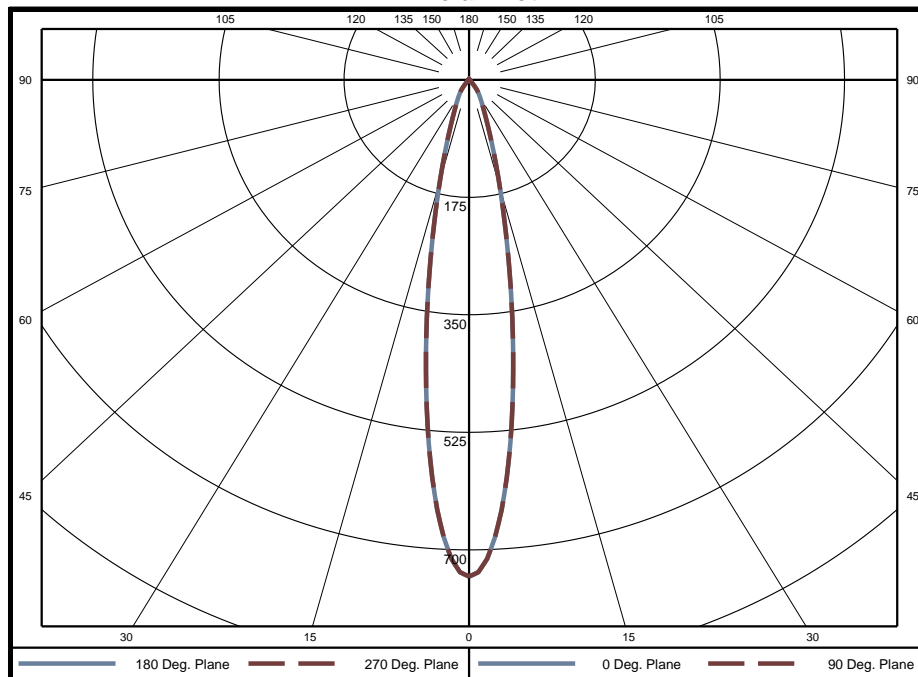
Luminaire Efficacy:

71.9 lm/w

Maximum Candela:

740 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	15.87	11.7%	60-65	0.59	0.4%	120-125	0.00	0.0%
5-10	32.21	23.8%	65-70	0.42	0.3%	125-130	0.00	0.0%
10-15	27.77	20.5%	70-75	0.29	0.2%	130-135	0.01	0.0%
15-20	18.66	13.8%	75-80	0.18	0.1%	135-140	0.01	0.0%
20-25	12.56	9.3%	80-85	0.07	0.1%	140-145	0.02	0.0%
25-30	9.42	6.9%	85-90	0.02	0.0%	145-150	0.03	0.0%
30-35	7.27	5.4%	90-95	0.00	0.0%	150-155	0.07	0.1%
35-40	4.72	3.5%	95-100	0.00	0.0%	155-160	0.11	0.1%
40-45	2.01	1.5%	100-105	0.00	0.0%	160-165	0.15	0.1%
45-50	1.17	0.9%	105-110	0.00	0.0%	165-170	0.15	0.1%
50-55	0.93	0.7%	110-115	0.00	0.0%	170-175	0.11	0.1%
55-60	0.77	0.6%	115-120	0.00	0.0%	175-180	0.04	0.0%

Zone	Lumens	% of Luminaire
0-40	128	94.7%
0-60	133	98.3%
0-90	135	99.5%
90-180	1	0.5%



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	739.7	739.7	739.7	739.7	739.7	739.7	739.7	739.7	739.7	739.7	739.7	739.7	739.7	739.7	739.7
	5	594.9	594.9	594.9	594.9	594.9	594.9	594.9	594.9	594.9	594.9	594.9	594.9	594.9	594.9	594.9
	10	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6
	15	161.4	161.4	161.4	161.4	161.4	161.4	161.4	161.4	161.4	161.4	161.4	161.4	161.4	161.4	161.4
	20	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5
	25	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0
	30	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2
	35	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7
	40	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
	45	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	50	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
	55	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
	60	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	1.4
	65	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
	70	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
	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
	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
	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
	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	0.1	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
	150	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
	155	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
	160	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
	165	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
	170	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	1.4
	175	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	180	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

Average Luminance (cd/m²)

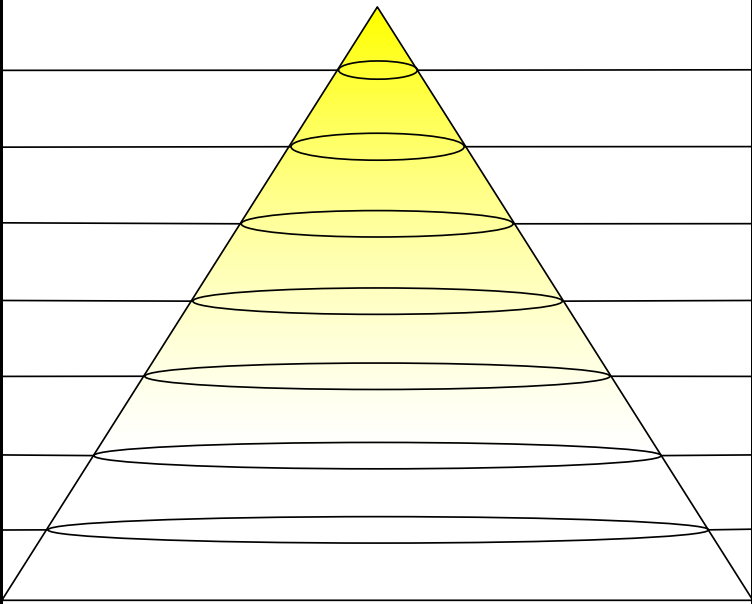
Vertical Angle (Degrees)	Horizontal Angle (Degrees)		
	0	45	90
	0	934300	934300
	45	6260	6260
	55	4134	4134
	65	3019	3019
	75	2174	2174
	85	939	939



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	161	161	161	161	157	157	157	157	150	150	150	144	144	144	138	138	138	135
1	155	152	149	147	152	149	147	144	144	142	140	138	137	136	134	133	132	129
2	149	144	140	136	147	142	138	134	137	134	131	133	131	128	130	127	126	124
3	144	137	132	127	141	135	130	126	132	128	124	128	125	122	125	123	120	118
4	139	131	125	120	137	129	124	120	127	122	118	124	120	117	121	118	116	114
5	134	125	119	115	132	124	118	114	122	117	113	120	116	112	118	114	111	110
6	130	121	114	110	128	120	114	109	118	113	109	116	111	108	114	110	107	106
7	126	116	110	106	124	115	109	105	114	109	105	112	108	104	111	107	104	102
8	122	112	106	102	121	111	106	102	110	105	101	109	104	101	108	103	100	99
9	118	109	103	98	117	108	102	98	107	102	98	106	101	98	105	100	97	96
10	115	105	99	95	114	105	99	95	104	99	95	103	98	95	102	98	95	93

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	739.7 Candela
Central Cone Intensity:	686 Candela
Beam Flux:	43.8 Lumens
Beam Angle (0-180):	18.6 Degrees
Beam Angle (90-270):	18.6 Degrees
Field Angle (0-180):	41.2 Degrees
Field Angle (90-270):	41.2 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
6.00		20.5	1.91
10.0		7.40	3.18
14.0		3.77	4.45
18.0		2.28	5.72
22.0		1.53	6.99
26.0		1.09	8.26
30.0		0.822	9.53



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	58.4	42.9%
FM	(30-60)	8.4	6.2%
FH	(60-80)	0.7	0.5%
FVH	(80-90)	0.0	0.0%
BL	(0-30)	58.4	42.9%
BM	(30-60)	8.4	6.2%
BH	(60-80)	0.7	0.5%
BVH	(80-90)	0.0	0.0%
UL	(90-100)	0.0	0.0%
UH	(100-180)	0.7	0.5%
Total		135.9	100.0%
BUG Rating	B0 U1 G0		