



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-W-30 (2W, 40° OPTIC, 3000K)

Order Number
13551695
Test Number
13551695.11

Test Date

2020-11-18

Prepared By

Cordaryl Cousar, Technician

Approved By

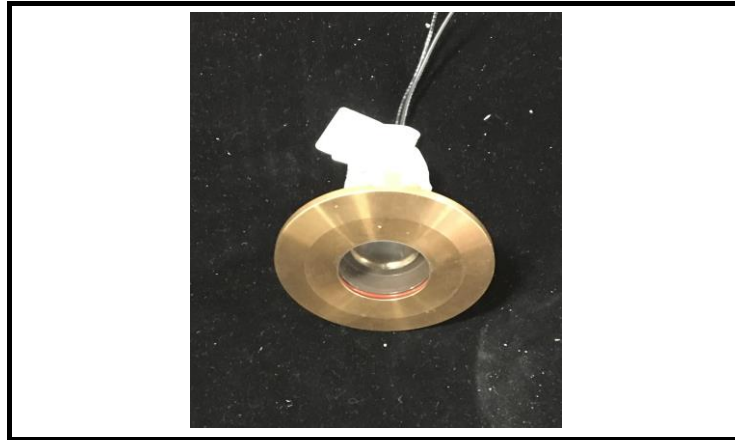
Alexa Lambert, Project Handler

The results contained in this report pertain only to the tested sample.
This report shall not be reproduced, except in full, without written approval of Underwriters Laboratories.
This report must not be used by the client to claim product certification, approval, or endorsement by
NVLAP, NIST, or any agency of the Federal Government.



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: 12.02 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
24.5 °C	12.02 VAC	0.1666 A	1.885 W	0.942	60 Hz	21.5 %

Summary of Results

Spacing Criteria

0-180: 0.54

90-270: 0.54

Total Lumen Output:

141.3 Lumens

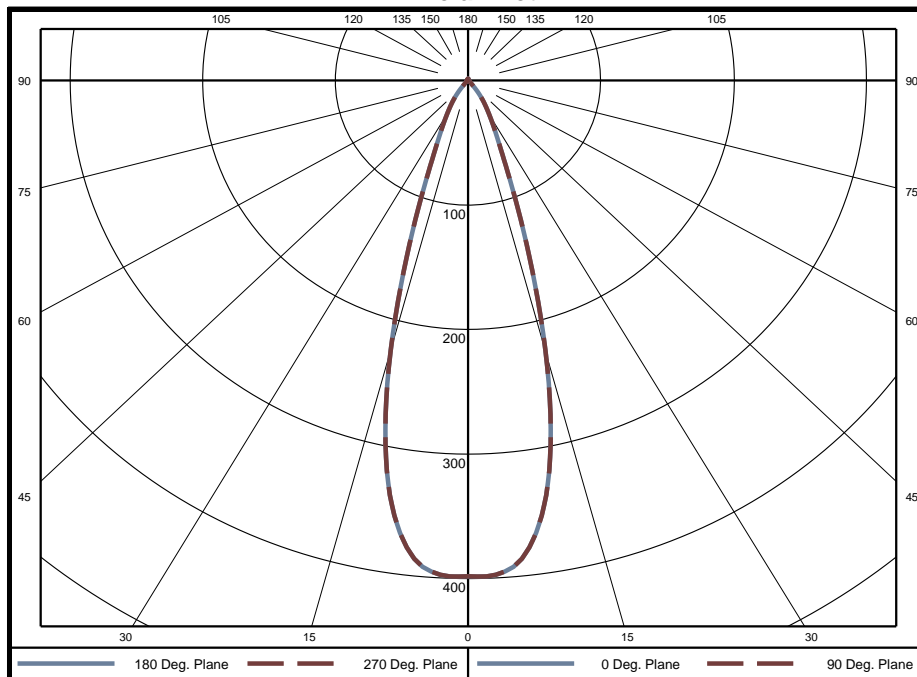
Luminaire Efficacy:

75.0 lm/w

Maximum Candela:

398 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	9.47	6.7%	60-65	0.59	0.4%	120-125	0.00	0.0%
5-10	26.25	18.6%	65-70	0.42	0.3%	125-130	0.00	0.0%
10-15	33.36	23.6%	70-75	0.29	0.2%	130-135	0.01	0.0%
15-20	26.42	18.7%	75-80	0.17	0.1%	135-140	0.01	0.0%
20-25	15.89	11.2%	80-85	0.07	0.0%	140-145	0.02	0.0%
25-30	10.56	7.5%	85-90	0.02	0.0%	145-150	0.04	0.0%
30-35	7.46	5.3%	90-95	0.00	0.0%	150-155	0.07	0.0%
35-40	4.66	3.3%	95-100	0.00	0.0%	155-160	0.11	0.1%
40-45	2.07	1.5%	100-105	0.00	0.0%	160-165	0.14	0.1%
45-50	1.21	0.9%	105-110	0.00	0.0%	165-170	0.14	0.1%
50-55	0.96	0.7%	110-115	0.00	0.0%	170-175	0.10	0.1%
55-60	0.78	0.6%	115-120	0.00	0.0%	175-180	0.04	0.0%

Zone	Lumens	% of Luminaire
0-40	134	94.9%
0-60	139	98.4%
0-90	141	99.5%
90-180	1	0.5%



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	398.0	398.0	398.0	398.0	398.0	398.0	398.0	398.0	398.0	398.0	398.0	398.0	398.0	398.0	398.0
	5	391.9	391.9	391.9	391.9	391.9	391.9	391.9	391.9	391.9	391.9	391.9	391.9	391.9	391.9	391.9
	10	337.9	337.9	337.9	337.9	337.9	337.9	337.9	337.9	337.9	337.9	337.9	337.9	337.9	337.9	337.9
	15	224.3	224.3	224.3	224.3	224.3	224.3	224.3	224.3	224.3	224.3	224.3	224.3	224.3	224.3	224.3
	20	109.2	109.2	109.2	109.2	109.2	109.2	109.2	109.2	109.2	109.2	109.2	109.2	109.2	109.2	109.2
	25	53.8	53.8	53.8	53.8	53.8	53.8	53.8	53.8	53.8	53.8	53.8	53.8	53.8	53.8	53.8
	30	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2
	35	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
	40	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
	45	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	50	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	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	1.5	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
	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	1.0	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
	170	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
	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	502700	502700	502700
	45	6468	6468	6468
	55	4268	4268	4268
	65	3000	3000	3000
	75	2116	2116	2116
	85	1028	1028	1028



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	161	158	155	152	158	155	152	150	149	147	145	144	142	141	139	138	136
2	155	149	144	140	152	147	142	139	142	139	136	138	135	133	134	132	130
3	149	141	136	131	146	140	134	130	136	131	128	132	129	126	129	126	124
4	143	135	128	123	141	133	127	122	130	125	121	127	123	120	125	121	118
5	138	128	122	117	136	127	121	116	125	119	115	122	118	114	120	116	113
6	133	123	116	111	131	122	115	111	120	114	110	118	113	109	116	112	108
7	128	118	111	106	127	117	111	106	115	110	105	114	109	105	112	108	104
8	124	113	107	102	123	113	106	102	111	105	101	110	105	101	108	104	100
9	120	109	102	98	119	108	102	98	107	101	97	106	101	97	105	100	97
10	116	105	99	94	115	105	98	94	104	98	94	103	97	94	102	97	93

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	398.0 Candela
Central Cone Intensity:	397 Candela
Beam Flux:	74.9 Lumens
Beam Angle (0-180):	31.9 Degrees
Beam Angle (90-270):	31.9 Degrees
Field Angle (0-180):	55.8 Degrees
Field Angle (90-270):	55.8 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
6.00		11.1	3.24
10.0		3.98	5.40
14.0		2.03	7.56
18.0		1.23	9.73
22.0		0.822	11.9
26.0		0.589	14.0
30.0		0.442	16.2



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	61.0	43.1%
FM	(30-60)	8.6	6.1%
FH	(60-80)	0.7	0.5%
FVH	(80-90)	0.0	0.0%
BL	(0-30)	61.0	43.1%
BM	(30-60)	8.6	6.1%
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		141.5	100.0%
BUG Rating	B0 U1 G0		