



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
H2O-P-WF-27 (50° OPTIC, 2700K)

Order Number
12250114
Test Number
12250114.114

Report Date

2018-05-09

Prepared By

Sean Gregory, Project Handler

Approved By

Alexa Lambert, Project Handler

The results contained in this report pertain only to the tested sample.
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Luminaire Description: Cylindrical brass housing with side wire feed
Lamp: One (1) Cree MHD-E 2700K LED with 50°, wide flood optic
Mounting: Flood
Ballast/Driver: Integrated

Luminaire



Luminaire Characteristics

Luminous Diameter: 1.25 in.

Summary of Results

Roadway Classification: Type V, Very Short
Cutoff Classification: Full Cutoff
BUG Rating: B0 U0 G0

Test Conditions

Test Temperature: 24.9 °C
Voltage: 12.03 VAC
Current: 0.3873 A
Power: 4.578 W
Power Factor: 0.982
Frequency: 60 Hz
Current THD: 10.1 %

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
24.9 °C	12.03 VAC	0.3873 A	4.578 W	0.982	60 Hz	10.1 %

Summary of Results

Spacing Criteria

0-180: 0.85

90-270: 0.85

Total Lumen Output:

287.8 Lumens

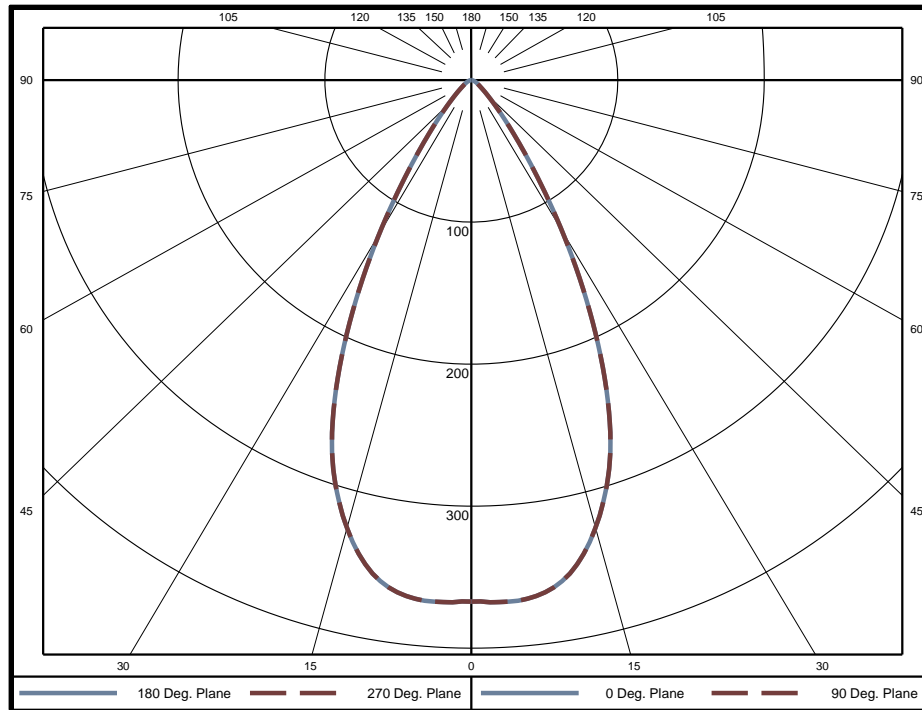
Luminaire Efficacy:

62.9 lm/w

Maximum Candela:

368 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	8.80	3.1%	60-65	1.91	0.7%	120-125	0	0.0%
5-10	26.04	9.0%	65-70	1.40	0.5%	125-130	0	0.0%
10-15	40.76	14.2%	70-75	0.94	0.3%	130-135	0	0.0%
15-20	49.99	17.4%	75-80	0.52	0.2%	135-140	0	0.0%
20-25	50.84	17.7%	80-85	0.15	0.1%	140-145	0	0.0%
25-30	41.80	14.5%	85-90	0.00	0.0%	145-150	0	0.0%
30-35	27.86	9.7%	90-95	0	0.0%	150-155	0	0.0%
35-40	16.12	5.6%	95-100	0	0.0%	155-160	0	0.0%
40-45	9.12	3.2%	100-105	0	0.0%	160-165	0	0.0%
45-50	5.46	1.9%	105-110	0	0.0%	165-170	0	0.0%
50-55	3.55	1.2%	110-115	0	0.0%	170-175	0	0.0%
55-60	2.55	0.9%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	262	91.1%
0-60	283	98.3%
0-90	288	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	367.2	367.2	367.2	367.2	367.2	367.2	367.2	367.2	367.2	367.2	367.2	367.2	367.2	367.2	367.2
	5	368.0	368.0	368.0	368.0	368.0	368.0	368.0	368.0	368.0	368.0	368.0	368.0	368.0	368.0	368.0
	10	358.2	358.2	358.2	358.2	358.2	358.2	358.2	358.2	358.2	358.2	358.2	358.2	358.2	358.2	358.2
	15	327.3	327.3	327.3	327.3	327.3	327.3	327.3	327.3	327.3	327.3	327.3	327.3	327.3	327.3	327.3
	20	278.5	278.5	278.5	278.5	278.5	278.5	278.5	278.5	278.5	278.5	278.5	278.5	278.5	278.5	278.5
	25	205.7	205.7	205.7	205.7	205.7	205.7	205.7	205.7	205.7	205.7	205.7	205.7	205.7	205.7	205.7
	30	127.8	127.8	127.8	127.8	127.8	127.8	127.8	127.8	127.8	127.8	127.8	127.8	127.8	127.8	127.8
	35	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2
	40	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8
	45	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7
	50	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
	55	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
	60	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
	65	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
	70	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
	75	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
	80	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
	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)

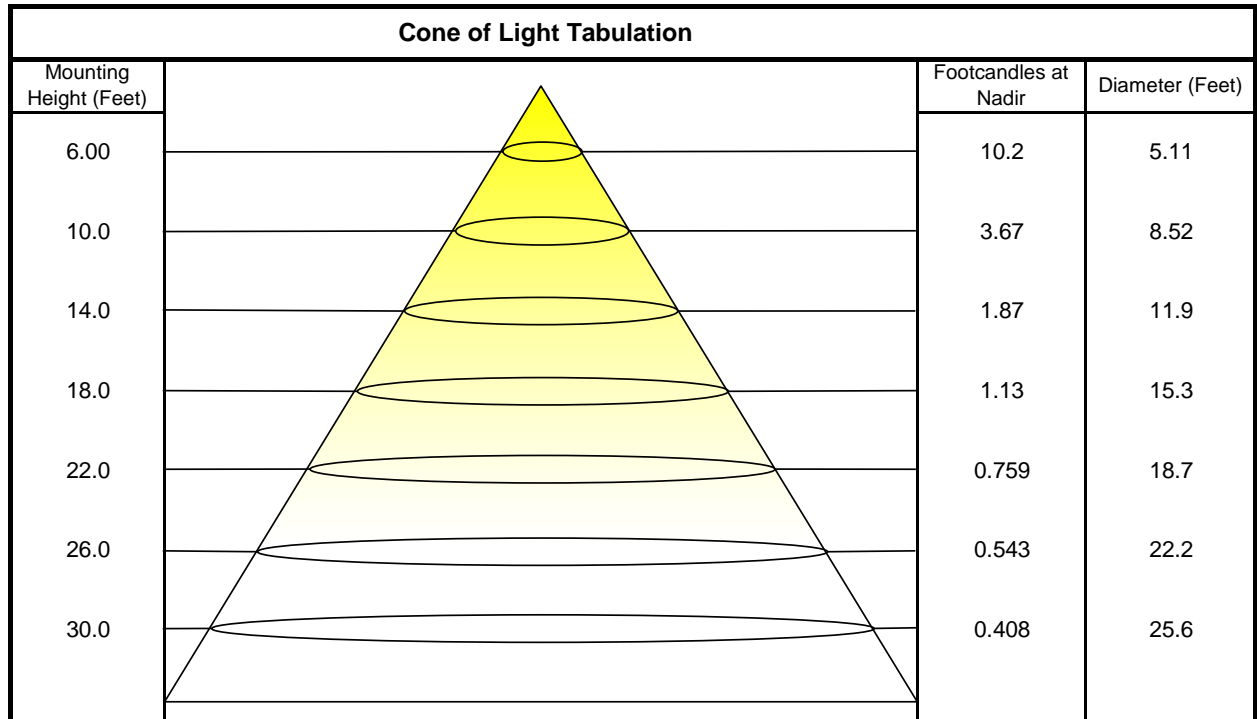
Vertical Angle (Degrees)	0	45	90
	0	463800	463800
	45	31600	31600
	55	14470	14470
	65	9883	9883
	75	6641	6641
	85	447	447



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	343	343	343	343	335	335	335	335	320	320	320	306	306	306	294	294	294	288
1	327	319	312	305	320	312	306	300	301	296	291	290	286	282	280	277	274	269
2	311	297	285	275	304	292	281	272	283	274	266	274	267	261	266	260	255	251
3	295	277	263	252	290	273	260	250	266	255	246	259	250	242	252	245	238	234
4	281	260	244	232	276	256	242	231	250	238	228	244	234	225	239	230	223	218
5	267	244	227	215	263	241	226	214	236	223	212	231	220	210	227	217	209	204
6	255	230	213	201	250	227	212	200	223	209	199	219	207	197	215	204	196	192
7	243	217	200	188	239	215	199	188	211	197	187	208	195	186	205	193	185	181
8	232	205	188	177	228	203	187	176	200	186	176	197	184	175	195	183	174	170
9	221	194	178	167	218	193	177	166	190	176	166	188	175	165	185	173	165	161
10	212	185	168	158	209	183	168	157	181	167	157	179	166	156	177	165	156	152

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	367.2 Candela
Central Cone Intensity:	368 Candela
Beam Flux:	188.9 Lumens
Beam Angle (0-180):	52.8 Degrees
Beam Angle (90-270):	52.8 Degrees
Field Angle (0-180):	78.8 Degrees
Field Angle (90-270):	78.8 Degrees





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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	109.2	37.8%
FM	(30-60)	32.6	11.3%
FH	(60-80)	2.4	0.8%
FVH	(80-90)	0.1	0.0%
BL	(0-30)	109.2	37.8%
BM	(30-60)	32.6	11.3%
BH	(60-80)	2.4	0.8%
BVH	(80-90)	0.1	0.0%
UL	(90-100)	0.0	0.0%
UH	(100-180)	0.0	0.0%
Total		288.4	100.0%
BUG Rating	B0 U0 G0		