



UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
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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-N-30 (20° OPTIC, 3000K)

Order Number
12250114
Test Number
12250114.111

Test Date

2018-05-07

Prepared By

Cordaryl Cousar, Technician

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 3000K LED with 20°, narrow 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: 25.1 °C
Voltage: 12.03 VAC
Current: 0.3818 A
Power: 4.511 W
Power Factor: 0.982
Frequency: 60 Hz
Current THD: 10.3 %

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	12.03 VAC	0.3818 A	4.511 W	0.982	60 Hz	10.3 %

Summary of Results

Spacing Criteria

0-180: 0.37

90-270: 0.37

Total Lumen Output:

315.4 Lumens

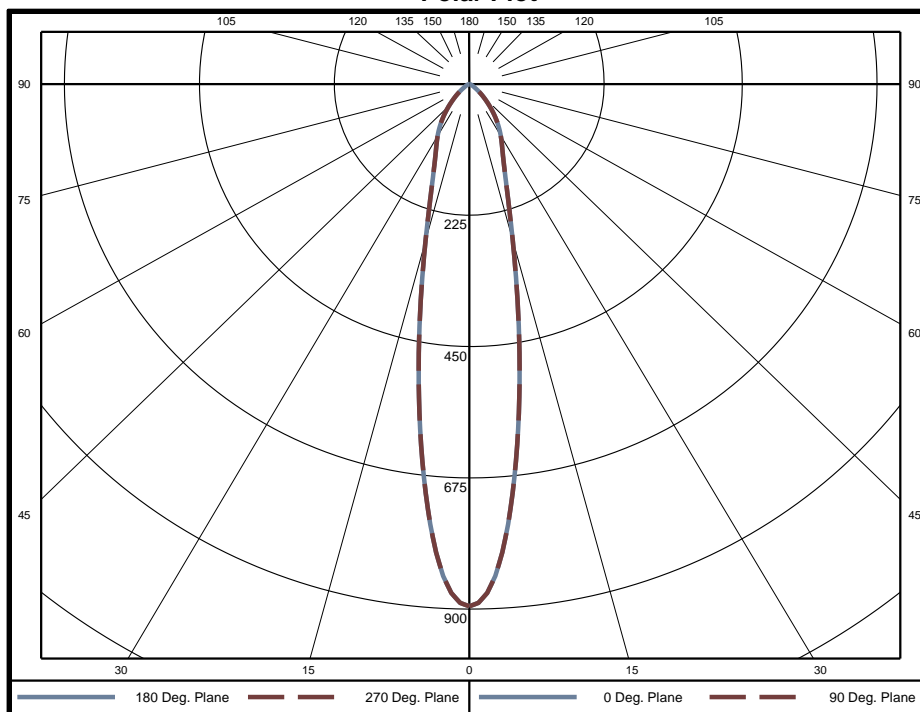
Luminaire Efficacy:

69.9 lm/w

Maximum Candela:

895 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	19.73	6.3%	60-65	3.14	1.0%	120-125	0	0.0%
5-10	43.66	13.8%	65-70	2.11	0.7%	125-130	0	0.0%
10-15	44.71	14.2%	70-75	1.38	0.4%	130-135	0	0.0%
15-20	37.62	11.9%	75-80	0.81	0.3%	135-140	0	0.0%
20-25	32.81	10.4%	80-85	0.32	0.1%	140-145	0	0.0%
25-30	30.61	9.7%	85-90	0.02	0.0%	145-150	0	0.0%
30-35	28.54	9.0%	90-95	0	0.0%	150-155	0	0.0%
35-40	24.57	7.8%	95-100	0	0.0%	155-160	0	0.0%
40-45	18.99	6.0%	100-105	0	0.0%	160-165	0	0.0%
45-50	13.26	4.2%	105-110	0	0.0%	165-170	0	0.0%
50-55	8.28	2.6%	110-115	0	0.0%	170-175	0	0.0%
55-60	4.85	1.5%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	262	83.1%
0-60	308	97.5%
0-90	315	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	895.1	895.1	895.1	895.1	895.1	895.1	895.1	895.1	895.1	895.1	895.1	895.1	895.1	895.1	895.1
	5	757.4	757.4	757.4	757.4	757.4	757.4	757.4	757.4	757.4	757.4	757.4	757.4	757.4	757.4	757.4
	10	492.6	492.6	492.6	492.6	492.6	492.6	492.6	492.6	492.6	492.6	492.6	492.6	492.6	492.6	492.6
	15	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0
	20	184.4	184.4	184.4	184.4	184.4	184.4	184.4	184.4	184.4	184.4	184.4	184.4	184.4	184.4	184.4
	25	135.6	135.6	135.6	135.6	135.6	135.6	135.6	135.6	135.6	135.6	135.6	135.6	135.6	135.6	135.6
	30	108.7	108.7	108.7	108.7	108.7	108.7	108.7	108.7	108.7	108.7	108.7	108.7	108.7	108.7	108.7
	35	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5
	40	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3
	45	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3
	50	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2
	55	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
	60	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
	65	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	5.1
	70	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
	75	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
	80	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
	85	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
	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	1131000	1131000
	45	73700	73700
	55	30290	30290
	65	15360	15360
	75	9921	9921
	85	2536	2536



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	375	375	375	375	367	367	367	367	350	350	350	336	336	336	322	322	322	315
1	357	348	340	333	350	342	334	328	329	323	318	317	312	308	306	303	299	294
2	339	323	310	299	332	318	306	296	308	298	289	298	290	283	290	283	277	272
3	322	301	285	272	315	297	282	270	288	276	266	281	270	262	274	265	258	253
4	306	282	264	250	300	278	262	249	271	257	246	265	253	243	259	249	240	235
5	291	264	246	232	286	261	244	231	256	241	229	250	237	227	245	234	225	220
6	277	249	230	217	272	246	229	216	242	226	214	237	223	213	233	221	212	207
7	264	235	217	203	260	233	215	203	229	213	202	225	211	201	222	209	200	195
8	253	223	205	192	249	221	204	191	218	202	191	215	200	190	212	199	189	185
9	242	212	194	182	238	211	193	181	208	192	181	205	190	180	202	189	180	175
10	232	202	185	173	229	201	184	173	198	183	172	196	182	172	194	181	171	167

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	895.1 Candela
Central Cone Intensity:	846 Candela
Beam Flux:	72.2 Lumens
Beam Angle (0-180):	21.9 Degrees
Beam Angle (90-270):	21.9 Degrees
Field Angle (0-180):	68.3 Degrees
Field Angle (90-270):	68.3 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
6.00		24.9	2.21
10.0		8.95	3.69
14.0		4.57	5.17
18.0		2.76	6.64
22.0		1.85	8.12
26.0		1.32	9.60
30.0		0.995	11.1



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	104.8	33.2%
FM	(30-60)	49.3	15.6%
FH	(60-80)	3.7	1.2%
FVH	(80-90)	0.2	0.1%
BL	(0-30)	104.8	33.2%
BM	(30-60)	49.3	15.6%
BH	(60-80)	3.7	1.2%
BVH	(80-90)	0.2	0.1%
UL	(90-100)	0.0	0.0%
UH	(100-180)	0.0	0.0%
Total		316.0	100.0%
BUG Rating	B0 U0 G0		