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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
LWL3-6-N-30 (6W, 20° OPTIC, 3000K)

Order Number
13551695
Test Number
13551695.13

Test Date

2020-10-29

Prepared By

Javier Caban, Technician

Approved By

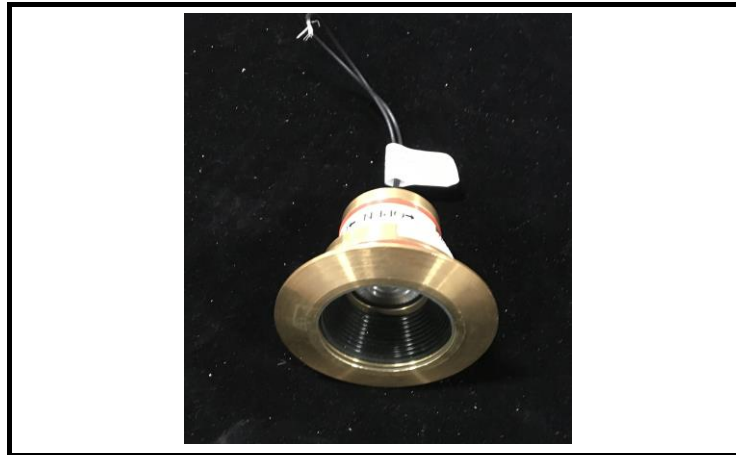
Alexa Lambert, Project Handler

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

Luminaire



Luminaire Characteristics

Luminous Diameter: 2.00 in.

Summary of Results

Roadway Classification: Type V, Very Short
Cutoff Classification: Full Cutoff
BUG Rating: B1 U0 G0

Test Conditions

Test Temperature: 24.2 °C
Voltage: 11.99 VAC
Current: 0.4580 A
Power: 5.419 W
Power Factor: 0.999
Frequency: 60 Hz
Current THD: 4.21 %

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
24.2 °C	11.99 VAC	0.4580 A	5.419 W	0.999	60 Hz	4.21 %

Summary of Results

Spacing Criteria

0-180: 0.35

90-270: 0.35

Total Lumen Output:

309.3 Lumens

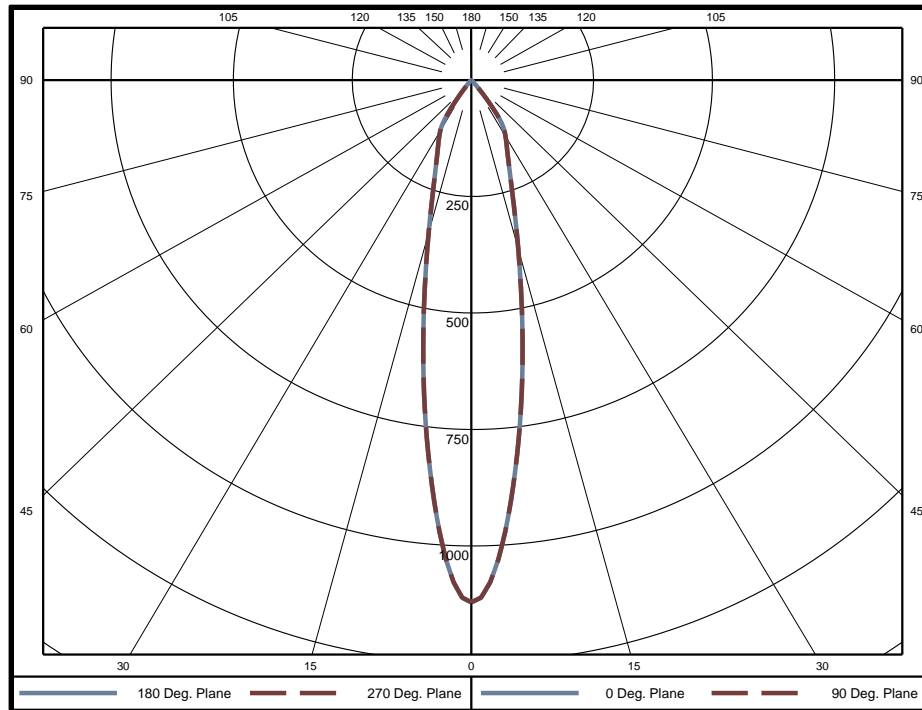
Luminaire Efficacy:

57.1 lm/w

Maximum Candela:

1121 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	24.03	7.8%	60-65	0.04	0.0%	120-125	0	0.0%
5-10	52.02	16.8%	65-70	0	0.0%	125-130	0	0.0%
10-15	53.88	17.4%	70-75	0	0.0%	130-135	0	0.0%
15-20	46.56	15.1%	75-80	0	0.0%	135-140	0	0.0%
20-25	41.07	13.3%	80-85	0	0.0%	140-145	0	0.0%
25-30	38.24	12.4%	85-90	0	0.0%	145-150	0	0.0%
30-35	33.53	10.8%	90-95	0	0.0%	150-155	0	0.0%
35-40	14.39	4.7%	95-100	0	0.0%	155-160	0	0.0%
40-45	3.07	1.0%	100-105	0	0.0%	160-165	0	0.0%
45-50	1.51	0.5%	105-110	0	0.0%	165-170	0	0.0%
50-55	0.71	0.2%	110-115	0	0.0%	170-175	0	0.0%
55-60	0.28	0.1%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	304	98.2%
0-60	309	100.0%
0-90	309	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	1121	1121	1121	1121	1121	1121	1121	1121	1121	1121	1121	1121	1121	1121	1121
	5	906	906	906	906	906	906	906	906	906	906	906	906	906	906	906
	10	588	588	588	588	588	588	588	588	588	588	588	588	588	588	588
	15	355	355	355	355	355	355	355	355	355	355	355	355	355	355	355
	20	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230
	25	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
	30	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135
	35	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84
	40	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
	45	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	50	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	55	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	85	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
	95	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
	105	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
	115	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
	125	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
	135	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
	145	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
	155	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
	165	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
	175	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

Average Luminance (cd/m²)
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	553000	553000
	45	3726	3726
	55	899	899
	65	0	0
	75	0	0
	85	0	0



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	368	368	368	368	360	360	360	360	344	344	344	329	329	329	316	316	316	309
1	354	346	340	334	346	340	334	328	327	323	318	316	312	309	305	303	300	295
2	339	327	316	307	333	321	312	303	312	304	297	303	296	291	294	289	285	280
3	326	309	296	285	320	305	293	283	297	287	279	290	281	274	283	276	270	266
4	313	293	279	268	308	290	276	266	283	272	263	277	268	260	272	264	257	253
5	300	279	264	252	296	276	262	251	271	258	249	266	255	247	261	252	245	241
6	289	266	250	239	285	263	249	238	259	246	237	255	244	235	251	241	234	230
7	278	254	238	227	274	252	237	227	248	235	226	245	233	224	242	231	223	220
8	268	243	227	217	264	241	227	216	238	225	215	235	223	215	232	222	214	210
9	258	233	218	207	255	232	217	207	229	216	206	226	214	206	224	213	205	202
10	249	224	209	199	246	223	208	198	220	207	198	218	206	197	216	205	197	194

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1121 Candela
Central Cone Intensity:	1038 Candela
Beam Flux:	81.0 Lumens
Beam Angle (0-180):	21.0 Degrees
Beam Angle (90-270):	21.0 Degrees
Field Angle (0-180):	66.1 Degrees
Field Angle (90-270):	66.1 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
6.00		31.1	2.12
10.0		11.2	3.53
14.0		5.72	4.94
18.0		3.46	6.36
22.0		2.32	7.77
26.0		1.66	9.18
30.0		1.25	10.6



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	128.0	41.3%
FM	(30-60)	26.8	8.6%
FH	(60-80)	0.0	0.0%
FVH	(80-90)	0.0	0.0%
BL	(0-30)	128.0	41.3%
BM	(30-60)	26.8	8.6%
BH	(60-80)	0.0	0.0%
BVH	(80-90)	0.0	0.0%
UL	(90-100)	0.0	0.0%
UH	(100-180)	0.0	0.0%
Total		309.7	100.0%
BUG Rating	B1 U0 G0		