



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

LWL5-W-30

Order Number

12790877

Test Number

12790877.03

Test Date

2019-04-04

Prepared By

Josh Mitchell, Technician

Approved By

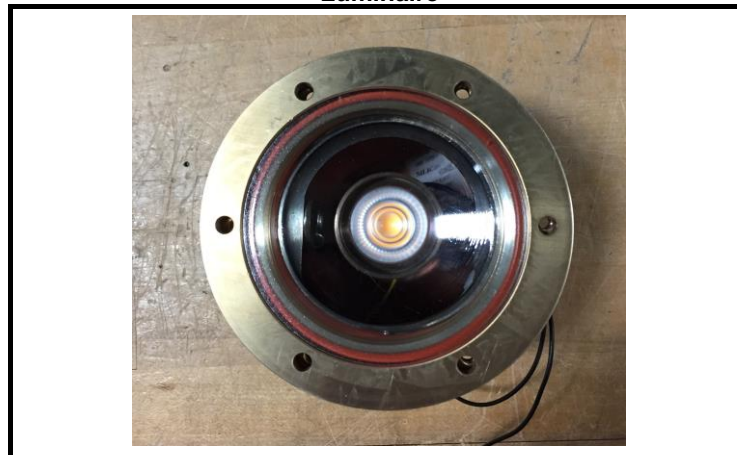
Alexa Lambert, Project Handler

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Luminaire Description: Cylindrical copper housing with circular brass faceplate and clear glass lens
Lamp: One (1) Cree MHD-E 3000K LED with 40° wide acrylic optic
Mounting: Recessed

Luminaire



Luminaire Characteristics

Luminous Diameter: 3.25 in.

Summary of Results

Roadway Classification: Type V, Very Short
Cutoff Classification: Cutoff
BUG Rating: B1 U1 G0

Test Conditions

Test Temperature: 25.1 °C
Voltage: 12.05 VAC
Current: 0.7319 A
Power: 8.755 W
Power Factor: 0.992
Frequency: 60 Hz
Current THD: 7.76 %

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	12.05 VAC	0.7319 A	8.755 W	0.992	60 Hz	7.76 %

Summary of Results

Spacing Criteria

0-180: 0.70
90-270: 0.70

Total Lumen Output:

527.8 Lumens

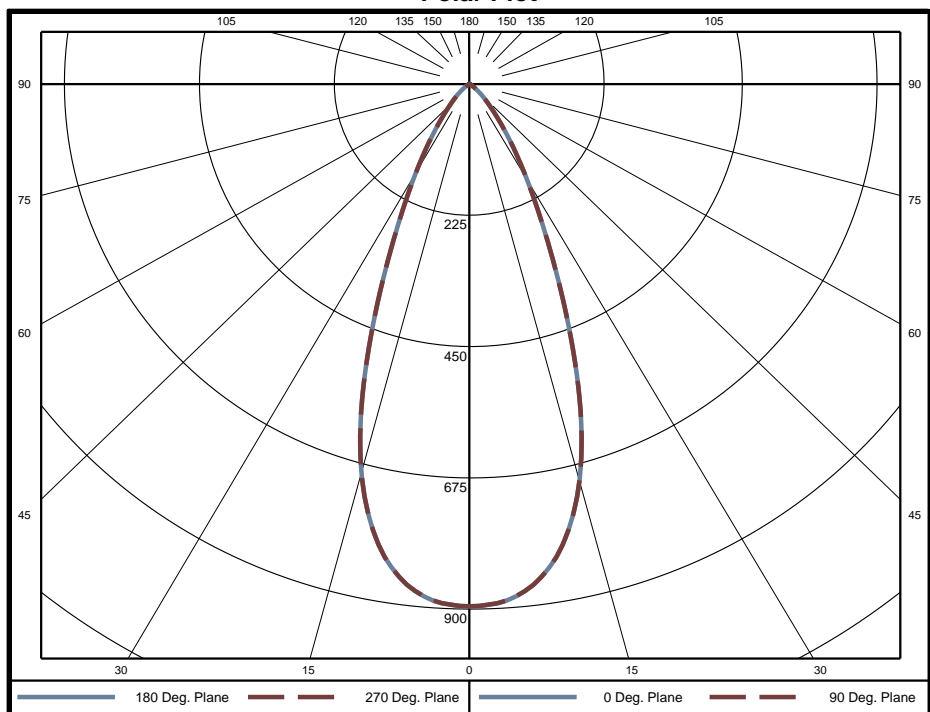
Luminaire Efficacy:

60.3 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	21.25	4.0%	60-65	0.56	0.1%	120-125	0	0.0%
5-10	61.04	11.6%	65-70	0.29	0.1%	125-130	0	0.0%
10-15	90.50	17.1%	70-75	0.21	0.0%	130-135	0	0.0%
15-20	99.46	18.8%	75-80	0.15	0.0%	135-140	0	0.0%
20-25	84.34	16.0%	80-85	0.13	0.0%	140-145	0	0.0%
25-30	61.87	11.7%	85-90	0.09	0.0%	145-150	0	0.0%
30-35	43.27	8.2%	90-95	0.01	0.0%	150-155	0	0.0%
35-40	28.27	5.4%	95-100	0	0.0%	155-160	0	0.0%
40-45	17.61	3.3%	100-105	0	0.0%	160-165	0	0.0%
45-50	10.71	2.0%	105-110	0	0.0%	165-170	0	0.0%
50-55	5.83	1.1%	110-115	0	0.0%	170-175	0	0.0%
55-60	2.17	0.4%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	490	92.8%
0-60	526	99.7%
0-90	528	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	881.3	881.3	881.3	881.3	881.3	881.3	881.3	881.3	881.3	881.3	881.3	881.3	881.3	881.3	881.3
	10	822.9	822.9	822.9	822.9	822.9	822.9	822.9	822.9	822.9	822.9	822.9	822.9	822.9	822.9	822.9
	15	699.6	699.6	699.6	699.6	699.6	699.6	699.6	699.6	699.6	699.6	699.6	699.6	699.6	699.6	699.6
	20	506.4	506.4	506.4	506.4	506.4	506.4	506.4	506.4	506.4	506.4	506.4	506.4	506.4	506.4	506.4
	25	313.3	313.3	313.3	313.3	313.3	313.3	313.3	313.3	313.3	313.3	313.3	313.3	313.3	313.3	313.3
	30	189.2	189.2	189.2	189.2	189.2	189.2	189.2	189.2	189.2	189.2	189.2	189.2	189.2	189.2	189.2
	35	111.5	111.5	111.5	111.5	111.5	111.5	111.5	111.5	111.5	111.5	111.5	111.5	111.5	111.5	111.5
	40	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0
	45	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1
	50	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9
	55	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
	60	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
	65	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
	70	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	75	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	80	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	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	0.1	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
	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	167200	167200
	45	9286	9286
	55	3061	3061
	65	302	302
	75	225	225
	85	439	439



Utilization of Lumens - Zonal Cavity Method

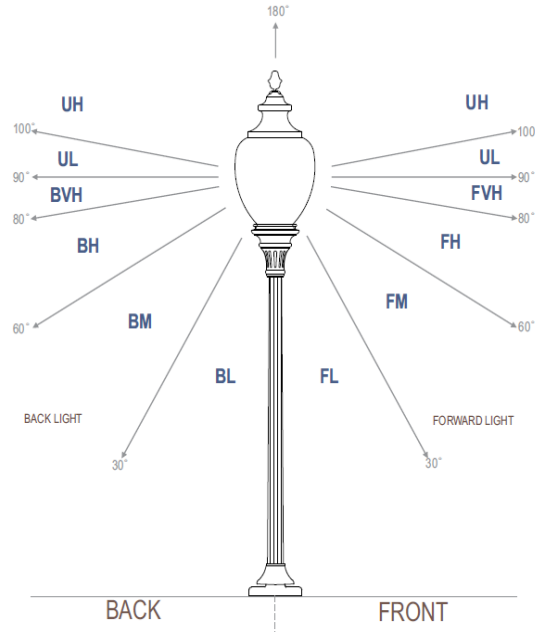
Effective Floor Cavity Reflectance 20%																		
Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																	
0	628	628	628	628	614	614	614	614	586	586	586	561	561	561	539	539	539	528
1	601	587	575	564	588	576	565	555	555	546	538	535	528	522	517	512	507	498
2	574	550	531	514	563	541	523	508	524	510	497	509	497	487	495	485	476	468
3	548	517	493	473	538	510	487	469	496	477	462	483	468	455	472	459	448	440
4	523	487	460	439	514	481	456	437	470	449	432	460	441	427	450	435	422	414
5	500	460	431	410	492	455	428	409	446	423	405	437	417	402	429	412	398	391
6	478	435	406	385	471	431	404	384	423	399	381	416	395	379	409	391	376	369
7	457	413	384	363	451	409	382	362	403	378	360	397	375	359	391	372	357	350
8	438	392	363	344	432	389	362	343	384	359	341	379	356	340	374	354	339	332
9	420	374	345	326	415	371	344	325	366	342	324	362	339	323	358	337	322	316
10	403	356	329	310	398	354	328	309	350	326	309	346	324	308	343	322	307	301

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	895.1 Candela
Central Cone Intensity:	891 Candela
Beam Flux:	297.2 Lumens
Beam Angle (0-180):	42.8 Degrees
Beam Angle (90-270):	42.8 Degrees
Field Angle (0-180):	73.9 Degrees
Field Angle (90-270):	73.9 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
6.00		24.9	4.22
10.0		8.95	7.03
14.0		4.57	9.85
18.0		2.76	12.7
22.0		1.85	15.5
26.0		1.32	18.3
30.0		0.995	21.1



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	209.1	39.6%
FM	(30-60)	54.2	10.3%
FH	(60-80)	0.6	0.1%
FVH	(80-90)	0.1	0.0%
BL	(0-30)	209.1	39.6%
BM	(30-60)	54.2	10.3%
BH	(60-80)	0.6	0.1%
BVH	(80-90)	0.1	0.0%
UL	(90-100)	0.0	0.0%
UH	(100-180)	0.0	0.0%
Total		528.2	100.0%
BUG Rating	B1 U1 G0		