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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

LWL5-M-30

Order Number

12790877

Test Number

12790877.02

Test Date

2019-04-04

Prepared By

Josh Mitchell, Technician

Approved By

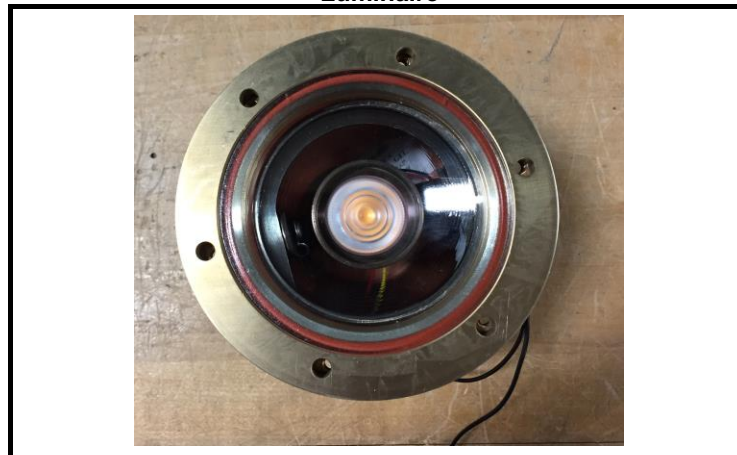
Alexa Lambert, Project Handler

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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 30° medium 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: 25.0 °C
Voltage: 12.05 VAC
Current: 0.7330 A
Power: 8.768 W
Power Factor: 0.992
Frequency: 60 Hz
Current THD: 7.81 %

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
25.0 °C	12.05 VAC	0.7330 A	8.768 W	0.992	60 Hz	7.81 %

Summary of Results

Spacing Criteria

0-180: 0.49

90-270: 0.49

Total Lumen Output:

494.5 Lumens

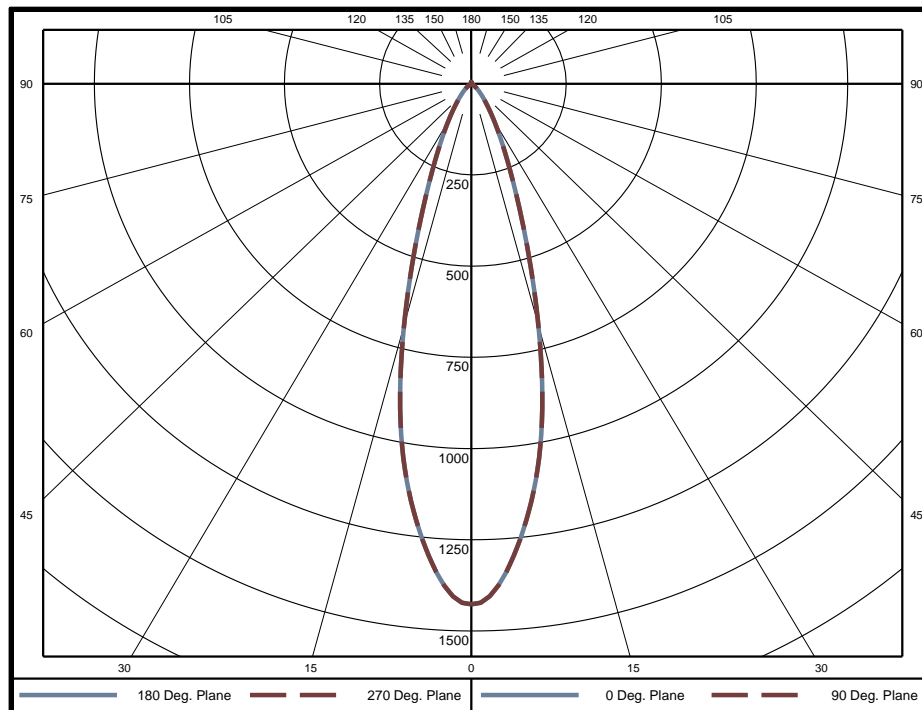
Luminaire Efficacy:

56.4 lm/w

Maximum Candela:

1427 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	32.5	6.6%	60-65	0.5	0.1%	120-125	0.0	0.0%
5-10	83.2	16.8%	65-70	0.3	0.1%	125-130	0.0	0.0%
10-15	102.2	20.7%	70-75	0.2	0.0%	130-135	0.0	0.0%
15-20	86.8	17.6%	75-80	0.1	0.0%	135-140	0.0	0.0%
20-25	61.8	12.5%	80-85	0.1	0.0%	140-145	0.1	0.0%
25-30	43.2	8.7%	85-90	0.1	0.0%	145-150	0.1	0.0%
30-35	30.0	6.1%	90-95	0.0	0.0%	150-155	0.2	0.0%
35-40	20.5	4.1%	95-100	0.0	0.0%	155-160	0.3	0.1%
40-45	14.0	2.8%	100-105	0.0	0.0%	160-165	0.4	0.1%
45-50	9.3	1.9%	105-110	0.0	0.0%	165-170	0.4	0.1%
50-55	5.5	1.1%	110-115	0.0	0.0%	170-175	0.3	0.1%
55-60	2.1	0.4%	115-120	0.0	0.0%	175-180	0.1	0.0%

Zone	Lumens	% of Luminaire
0-40	460	93.1%
0-60	491	99.3%
0-90	492	99.6%
90-180	2	0.4%



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	1427	1427	1427	1427	1427	1427	1427	1427	1427	1427	1427	1427	1427	1427	1427
	5	1299	1299	1299	1299	1299	1299	1299	1299	1299	1299	1299	1299	1299	1299	1299
	10	1042	1042	1042	1042	1042	1042	1042	1042	1042	1042	1042	1042	1042	1042	1042
	15	695	695	695	695	695	695	695	695	695	695	695	695	695	695	695
	20	392	392	392	392	392	392	392	392	392	392	392	392	392	392	392
	25	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221
	30	131	131	131	131	131	131	131	131	131	131	131	131	131	131	131
	35	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78
	40	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
	45	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
	50	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
	55	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
	60	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	65	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	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	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	155	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	160	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	165	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	170	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	175	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	180	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	266600	266600
	45	7821	7821
	55	2573	2573
	65	304	304
	75	173	173
	85	252	252



Utilization of Lumens - Zonal Cavity Method

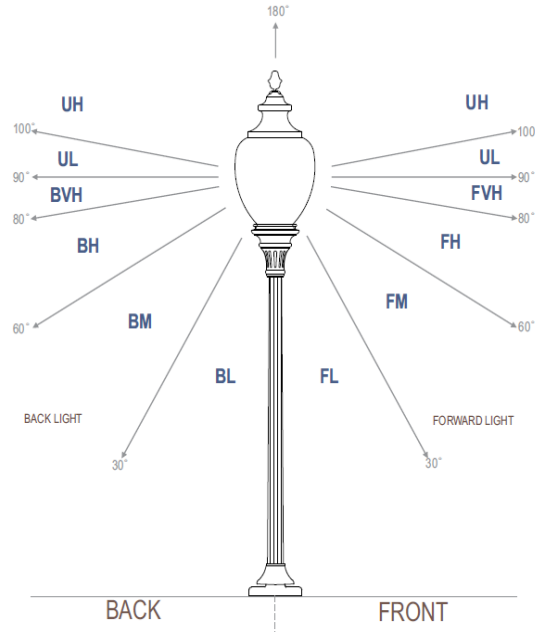
Effective Floor Cavity Reflectance 20%																		
Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																	
0	588	588	588	588	574	574	574	574	548	548	548	524	524	524	503	503	503	492
1	564	552	542	532	552	542	532	523	521	514	507	503	497	491	486	481	477	468
2	541	520	503	488	530	512	496	483	496	483	472	481	471	462	467	459	452	444
3	519	492	470	454	509	485	465	450	472	456	442	460	447	435	449	438	429	421
4	498	466	443	425	490	461	439	422	450	432	417	440	425	412	431	418	407	401
5	478	443	419	401	471	439	416	399	430	410	395	422	405	392	414	400	388	382
6	460	423	398	380	453	419	395	378	412	391	376	405	387	373	399	383	370	364
7	442	404	379	361	436	401	377	360	395	374	358	389	370	356	384	367	354	348
8	426	387	362	345	421	384	360	344	379	358	343	374	355	341	369	352	340	334
9	411	371	347	330	406	369	346	330	364	343	328	360	341	327	356	339	326	321
10	397	357	333	317	393	355	332	316	351	330	316	347	328	315	344	326	314	308

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1427 Candela
Central Cone Intensity:	1380 Candela
Beam Flux:	212.9 Lumens
Beam Angle (0-180):	29.5 Degrees
Beam Angle (90-270):	29.5 Degrees
Field Angle (0-180):	58.3 Degrees
Field Angle (90-270):	58.3 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
6.00		39.6	2.95
10.0		14.3	4.92
14.0		7.28	6.89
18.0		4.40	8.86
22.0		2.95	10.8
26.0		2.11	12.8
30.0		1.59	14.8



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	205.0	41.4%
FM	(30-60)	40.9	8.3%
FH	(60-80)	0.6	0.1%
FVH	(80-90)	0.1	0.0%
BL	(0-30)	205.0	41.4%
BM	(30-60)	40.9	8.3%
BH	(60-80)	0.6	0.1%
BVH	(80-90)	0.1	0.0%
UL	(90-100)	0.0	0.0%
UH	(100-180)	2.2	0.4%
Total		495.4	100.0%
BUG Rating	B1 U1 G0		