



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 Avenue West
Carlsbad
CA, 92010
United States

Catalog Number

HPL7-3-27

Order Number

11745044

Test Number

11745044.17

Test Date

2017-05-12

Prepared By

Javier Caban, Technician

Approved By

Tiffany Hamm, Project Handler

The results contained in this report pertain only to the tested sample.
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Luminaire Description: Conical 7" copper shade with clear glass lens, cylindrical copper stem and brass base
Lamp: 64 white LEDs
Mounting: Path/Area
Ballast/Driver: Integrated

Luminaire



Luminaire Characteristics

Luminous Diameter: 7.00 in.

Summary of Results

Roadway Classification: Type V, Very Short
Cutoff Classification: Semicutoff
BUG Rating: B0 U1 G0

Test Conditions

Test Temperature: 25.4 °C
Voltage: 12.00 VAC
Current: 0.4958 A
Power: 3.344 W
Power Factor: 0.562
Frequency: 60 Hz
Current THD: 78.1 %

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
25.4 °C	12.00 VAC	0.4958 A	3.344 W	0.562	60 Hz	78.1 %

Summary of Results

Spacing Criteria

0-180: 1.05
90-270: 1.05

Total Lumen Output:

165.6 Lumens

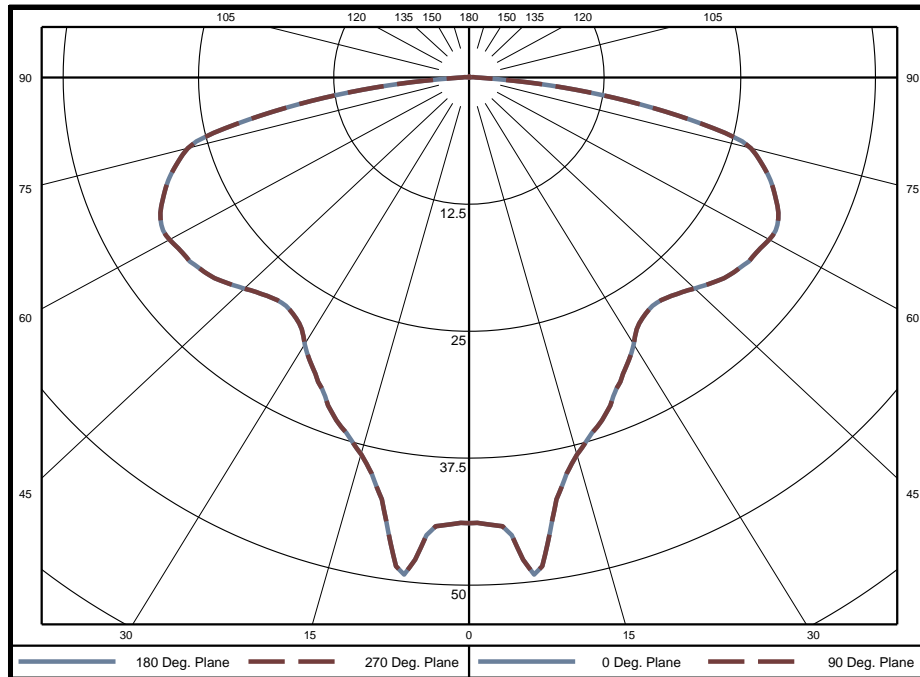
Luminaire Efficacy:

49.5 lm/w

Maximum Candela:

49 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	1.06	0.6%	60-65	15.52	9.4%	120-125	0.02	0.0%
5-10	3.38	2.0%	65-70	15.50	9.4%	125-130	0.02	0.0%
10-15	4.82	2.9%	70-75	14.82	8.9%	130-135	0.02	0.0%
15-20	6.11	3.7%	75-80	12.20	7.4%	135-140	0.02	0.0%
20-25	7.22	4.4%	80-85	6.07	3.7%	140-145	0.02	0.0%
25-30	8.02	4.8%	85-90	1.12	0.7%	145-150	0.02	0.0%
30-35	8.59	5.2%	90-95	0.27	0.2%	150-155	0.01	0.0%
35-40	9.42	5.7%	95-100	0.11	0.1%	155-160	0.01	0.0%
40-45	10.67	6.4%	100-105	0.06	0.0%	160-165	0.01	0.0%
45-50	12.16	7.3%	105-110	0.04	0.0%	165-170	0.01	0.0%
50-55	13.55	8.2%	110-115	0.03	0.0%	170-175	0.00	0.0%
55-60	14.67	8.9%	115-120	0.03	0.0%	175-180	0.00	0.0%

Zone	Lumens	% of Luminaire
0-40	49	29.4%
0-60	100	60.2%
0-90	165	99.6%
90-180	1	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	43.88	43.88	43.88	43.88	43.88	43.88	43.88	43.88	43.88	43.88	43.88	43.88	43.88	43.88	43.88
	5	45.23	45.23	45.23	45.23	45.23	45.23	45.23	45.23	45.23	45.23	45.23	45.23	45.23	45.23	45.23
	10	44.25	44.25	44.25	44.25	44.25	44.25	44.25	44.25	44.25	44.25	44.25	44.25	44.25	44.25	44.25
	15	38.46	38.46	38.46	38.46	38.46	38.46	38.46	38.46	38.46	38.46	38.46	38.46	38.46	38.46	38.46
	20	35.91	35.91	35.91	35.91	35.91	35.91	35.91	35.91	35.91	35.91	35.91	35.91	35.91	35.91	35.91
	25	33.06	33.06	33.06	33.06	33.06	33.06	33.06	33.06	33.06	33.06	33.06	33.06	33.06	33.06	33.06
	30	30.40	30.40	30.40	30.40	30.40	30.40	30.40	30.40	30.40	30.40	30.40	30.40	30.40	30.40	30.40
	35	28.41	28.41	28.41	28.41	28.41	28.41	28.41	28.41	28.41	28.41	28.41	28.41	28.41	28.41	28.41
	40	28.34	28.34	28.34	28.34	28.34	28.34	28.34	28.34	28.34	28.34	28.34	28.34	28.34	28.34	28.34
	45	29.41	29.41	29.41	29.41	29.41	29.41	29.41	29.41	29.41	29.41	29.41	29.41	29.41	29.41	29.41
	50	30.74	30.74	30.74	30.74	30.74	30.74	30.74	30.74	30.74	30.74	30.74	30.74	30.74	30.74	30.74
	55	31.57	31.57	31.57	31.57	31.57	31.57	31.57	31.57	31.57	31.57	31.57	31.57	31.57	31.57	31.57
	60	31.98	31.98	31.98	31.98	31.98	31.98	31.98	31.98	31.98	31.98	31.98	31.98	31.98	31.98	31.98
	65	31.52	31.52	31.52	31.52	31.52	31.52	31.52	31.52	31.52	31.52	31.52	31.52	31.52	31.52	31.52
	70	29.63	29.63	29.63	29.63	29.63	29.63	29.63	29.63	29.63	29.63	29.63	29.63	29.63	29.63	29.63
	75	26.96	26.96	26.96	26.96	26.96	26.96	26.96	26.96	26.96	26.96	26.96	26.96	26.96	26.96	26.96
	80	17.24	17.24	17.24	17.24	17.24	17.24	17.24	17.24	17.24	17.24	17.24	17.24	17.24	17.24	17.24
	85	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28
	90	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65
	95	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
	100	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
	105	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
	110	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
	115	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	120	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	125	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	130	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	135	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	140	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	145	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	150	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	155	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	160	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	165	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
	170	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	175	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	180	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	1767	1767
	45	1675	1675
	55	2217	2217
	65	3004	3004
	75	4195	4195
	85	2439	2439



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	197	197	197	197	192	192	192	192	184	184	184	176	176	176	168	168	168	165
1	174	164	155	146	169	160	152	144	153	146	139	146	140	135	139	135	130	126
2	155	137	123	111	150	134	121	110	128	117	107	122	113	104	117	109	102	98
3	138	117	101	88	134	114	99	87	109	96	85	104	93	84	99	90	82	78
4	125	102	85	72	121	99	83	71	95	81	70	91	79	69	87	76	68	63
5	114	90	73	60	110	88	72	60	84	70	59	80	68	58	77	66	57	53
6	105	80	63	51	101	78	62	51	75	61	50	72	59	50	69	58	49	45
7	97	72	56	45	94	71	55	44	68	54	44	65	53	43	63	52	43	39
8	90	65	50	39	87	64	49	39	62	48	39	60	47	39	58	46	38	35
9	84	60	45	35	82	59	45	35	57	44	35	55	43	35	53	42	34	31
10	79	55	41	32	77	54	41	32	53	40	31	51	39	31	49	39	31	28

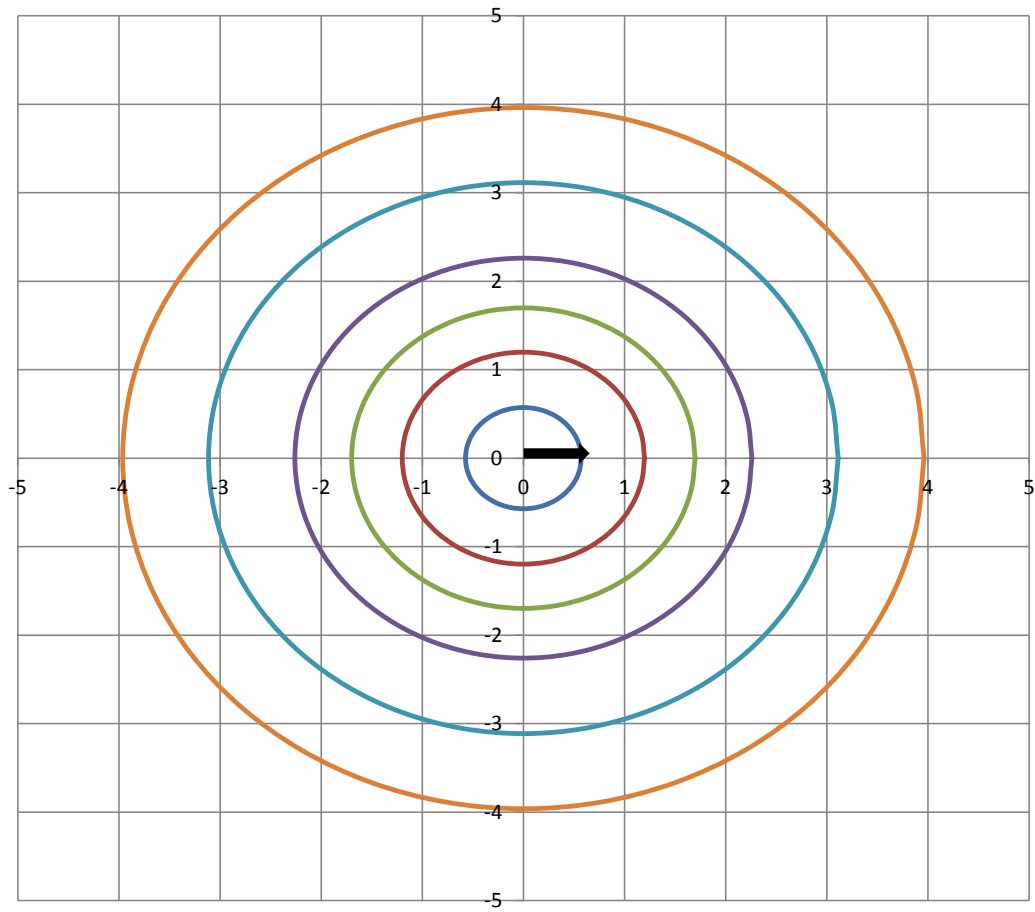
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	43.88 Candela
Central Cone Intensity:	44 Candela
Beam Flux:	153.6 Lumens
Beam Angle (0-180):	156.1 Degrees
Beam Angle (90-270):	156.1 Degrees
Field Angle (0-180):	170.9 Degrees
Field Angle (90-270):	170.9 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		2.74	4.20
6.00		1.22	6.30
8.00		0.686	8.40
10.0		0.439	10.5
12.0		0.305	12.6
14.0		0.224	14.7
16.0		0.171	16.8



ISOFootcandle Plot

Mounting Height - 2 Feet



Grid Lines in Units of Mounting Height





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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	15.3	9.2%
FM	(30-60)	34.7	20.8%
FH	(60-80)	29.1	17.5%
FVH	(80-90)	3.7	2.2%
BL	(0-30)	15.3	9.2%
BM	(30-60)	34.7	20.8%
BH	(60-80)	29.1	17.5%
BVH	(80-90)	3.7	2.2%
UL	(90-100)	0.4	0.2%
UH	(100-180)	0.3	0.2%
Total		166.2	100.0%
BUG Rating	B0 U1 G0		