



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 Avenue West
Carlsbad
CA, 92010
United States

Catalog Number

HPL6-3-30

Order Number

11745044

Test Number

11745044.14

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 6" 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: 6.00 in.

Summary of Results

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

Test Conditions

Test Temperature:	24.7 °C
Voltage:	12.01 VAC
Current:	0.4876 A
Power:	3.278 W
Power Factor:	0.560
Frequency:	60 Hz
Current THD:	79.1 %

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
24.7 °C	12.01 VAC	0.4876 A	3.278 W	0.560	60 Hz	79.1 %

Summary of Results

Spacing Criteria

0-180: 2.34
90-270: 2.34

Total Lumen Output:

130.5 Lumens

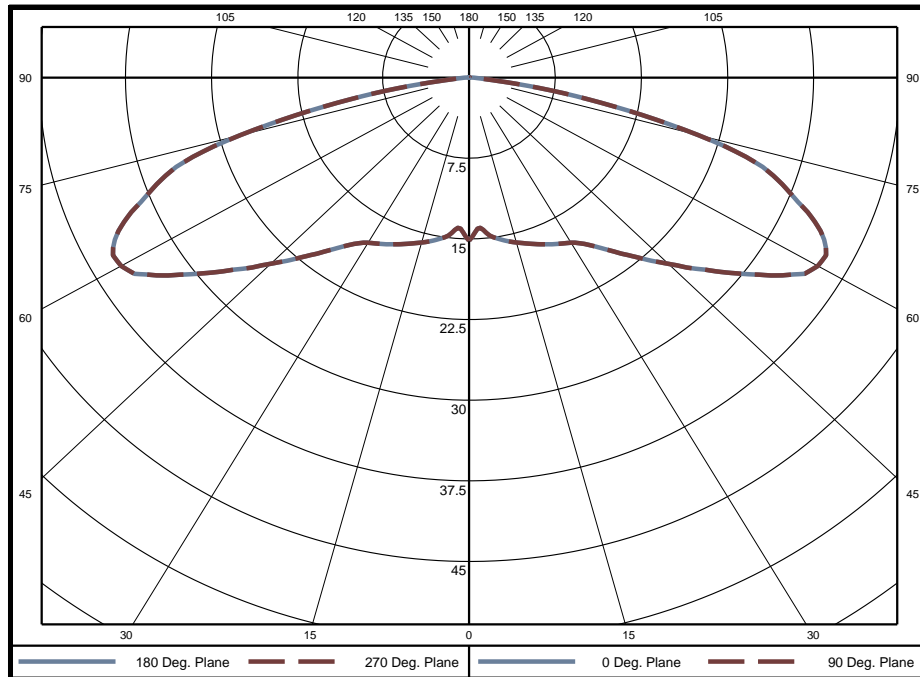
Luminaire Efficacy:

39.8 lm/w

Maximum Candela:

35 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	0.34	0.3%	60-65	16.91	13.0%	120-125	0.01	0.0%
5-10	1.07	0.8%	65-70	15.91	12.2%	125-130	0.01	0.0%
10-15	1.85	1.4%	70-75	13.38	10.3%	130-135	0.01	0.0%
15-20	2.67	2.0%	75-80	7.64	5.9%	135-140	0.01	0.0%
20-25	3.52	2.7%	80-85	2.10	1.6%	140-145	0.01	0.0%
25-30	4.41	3.4%	85-90	0.36	0.3%	145-150	0.01	0.0%
30-35	5.41	4.1%	90-95	0.09	0.1%	150-155	0.01	0.0%
35-40	6.79	5.2%	95-100	0.04	0.0%	155-160	0.01	0.0%
40-45	8.52	6.5%	100-105	0.03	0.0%	160-165	0.00	0.0%
45-50	10.60	8.1%	105-110	0.02	0.0%	165-170	0.00	0.0%
50-55	13.05	10.0%	110-115	0.02	0.0%	170-175	0.00	0.0%
55-60	15.65	12.0%	115-120	0.02	0.0%	175-180	0.00	0.0%

Zone	Lumens	% of Luminaire
0-40	26	20.0%
0-60	74	56.6%
0-90	130	99.8%
90-180	0	0.2%



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	15.16	15.16	15.16	15.16	15.16	15.16	15.16	15.16	15.16	15.16	15.16	15.16	15.16	15.16	15.16
	5	14.21	14.21	14.21	14.21	14.21	14.21	14.21	14.21	14.21	14.21	14.21	14.21	14.21	14.21	14.21
	10	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25
	15	15.87	15.87	15.87	15.87	15.87	15.87	15.87	15.87	15.87	15.87	15.87	15.87	15.87	15.87	15.87
	20	16.46	16.46	16.46	16.46	16.46	16.46	16.46	16.46	16.46	16.46	16.46	16.46	16.46	16.46	16.46
	25	17.10	17.10	17.10	17.10	17.10	17.10	17.10	17.10	17.10	17.10	17.10	17.10	17.10	17.10	17.10
	30	17.72	17.72	17.72	17.72	17.72	17.72	17.72	17.72	17.72	17.72	17.72	17.72	17.72	17.72	17.72
	35	19.17	19.17	19.17	19.17	19.17	19.17	19.17	19.17	19.17	19.17	19.17	19.17	19.17	19.17	19.17
	40	21.55	21.55	21.55	21.55	21.55	21.55	21.55	21.55	21.55	21.55	21.55	21.55	21.55	21.55	21.55
	45	24.48	24.48	24.48	24.48	24.48	24.48	24.48	24.48	24.48	24.48	24.48	24.48	24.48	24.48	24.48
	50	28.02	28.02	28.02	28.02	28.02	28.02	28.02	28.02	28.02	28.02	28.02	28.02	28.02	28.02	28.02
	55	32.07	32.07	32.07	32.07	32.07	32.07	32.07	32.07	32.07	32.07	32.07	32.07	32.07	32.07	32.07
	60	35.04	35.04	35.04	35.04	35.04	35.04	35.04	35.04	35.04	35.04	35.04	35.04	35.04	35.04	35.04
	65	33.75	33.75	33.75	33.75	33.75	33.75	33.75	33.75	33.75	33.75	33.75	33.75	33.75	33.75	33.75
	70	29.01	29.01	29.01	29.01	29.01	29.01	29.01	29.01	29.01	29.01	29.01	29.01	29.01	29.01	29.01
	75	20.65	20.65	20.65	20.65	20.65	20.65	20.65	20.65	20.65	20.65	20.65	20.65	20.65	20.65	20.65
	80	8.41	8.41	8.41	8.41	8.41	8.41	8.41	8.41	8.41	8.41	8.41	8.41	8.41	8.41	8.41
	85	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
	90	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
	95	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
	100	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
	105	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
	110	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
	115	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
	120	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
	125	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
	130	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
	135	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
	140	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
	145	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
	150	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
	155	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
	160	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
	165	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
	170	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
	175	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
	180	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	831	831
	45	1898	1898
	55	3066	3066
	65	4378	4378
	75	4374	4374
	85	722	722



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	155	155	155	155	152	152	152	152	145	145	145	139	139	139	133	133	133	130
1	137	129	122	115	134	126	120	114	120	115	110	115	110	106	110	106	103	100
2	121	107	95	85	117	104	93	84	99	90	82	94	87	80	90	84	78	75
3	107	89	76	65	103	87	74	64	83	72	63	79	69	62	75	67	60	57
4	95	76	62	51	92	74	61	50	70	59	49	67	57	49	64	55	48	44
5	86	66	51	41	83	64	50	40	61	49	40	58	47	39	55	46	39	35
6	78	57	43	33	75	56	43	33	53	42	33	51	40	32	49	39	32	29
7	72	51	38	28	69	50	37	28	48	36	28	45	35	27	43	34	27	24
8	66	46	33	24	64	45	32	24	43	32	24	41	31	23	39	30	23	20
9	61	41	29	21	59	40	29	21	39	28	20	37	27	20	36	27	20	17
10	57	38	26	18	55	37	26	18	36	25	18	34	25	18	33	24	18	15

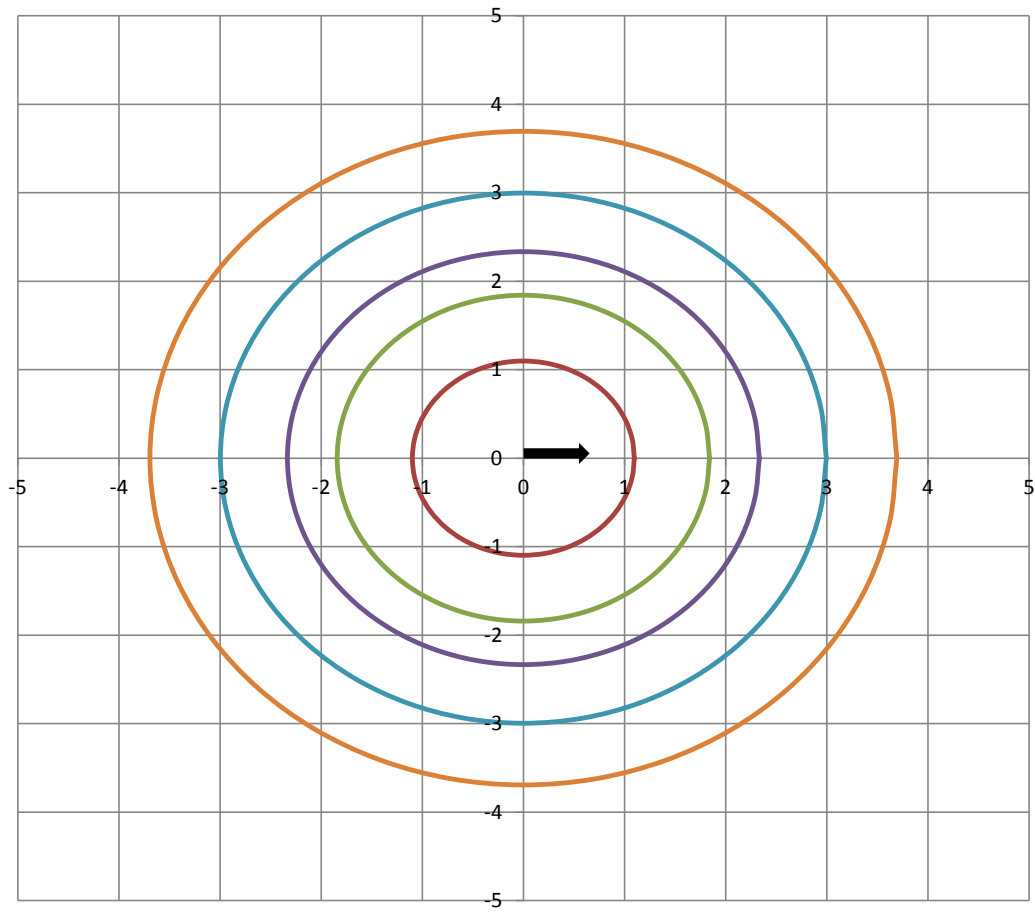
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	15.16 Candela
Central Cone Intensity:	14 Candela
Beam Flux:	128.0 Lumens
Beam Angle (0-180):	160.8 Degrees
Beam Angle (90-270):	160.8 Degrees
Field Angle (0-180):	168.1 Degrees
Field Angle (90-270):	168.1 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		0.948	9.35
6.00		0.421	14.0
8.00		0.237	18.7
10.0		0.152	23.4
12.0		0.105	28.0
14.0		0.0774	32.7
16.0		0.0592	37.4

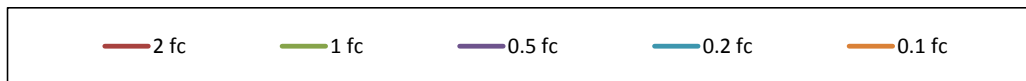


ISOFootcandle Plot

Mounting Height - 2 Feet

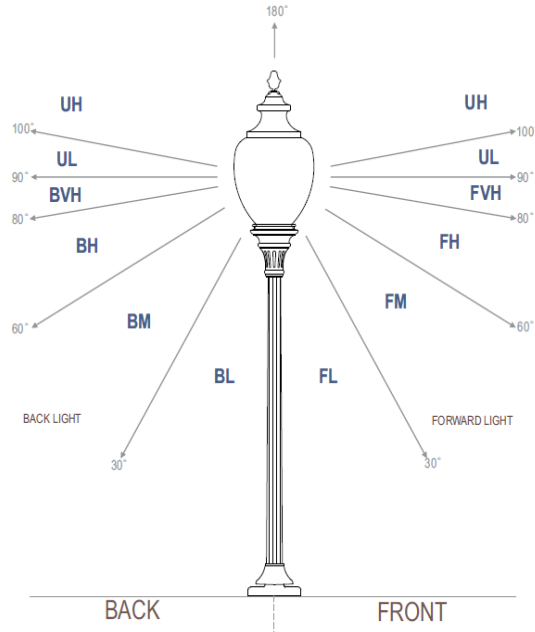


Grid Lines in Units of Mounting Height





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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	6.9	5.3%
FM	(30-60)	29.9	23.0%
FH	(60-80)	26.7	20.5%
FVH	(80-90)	1.3	1.0%
BL	(0-30)	6.9	5.3%
BM	(30-60)	29.9	23.0%
BH	(60-80)	26.7	20.5%
BVH	(80-90)	1.3	1.0%
UL	(90-100)	0.1	0.1%
UH	(100-180)	0.2	0.1%
Total		130.1	100.0%
BUG Rating	B0 U1 G0		