



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 Ave W
#100
Carlsbad, CA 92010-6619
United States

Catalog Number
LPL7-SQ-3-30
Order Number
12472705
Test Number
12472705.01A

Revision of Test Number 12472705.01 on:

2021-06-14
Test Date

2018-08-27

Prepared By

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Approved By

Alexa Lambert, Project Handler

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Luminaire Description: Square 7" copper shade with acrylic optic, square stem and brass base
Lamp: One (1) XP-L 3000K LED with one (1) acrylic optic
Mounting: Path/Area Light
Ballast/Driver: Integrated

Luminaire



Luminaire Characteristics

Luminous Length: 6.50 in.
Luminous Width: 6.500 in.

Summary of Results

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

Test Conditions

Test Temperature: 25.2 °C
Voltage: 12.01 VAC
Current: 0.4224 A
Power: 3.164 W
Power Factor: 0.624
Frequency: 60 Hz
Current THD: 89.9 %

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
25.2 °C	12.01 VAC	0.4224 A	3.164 W	0.624	60 Hz	89.9 %

Summary of Results

Spacing Criteria

0-180: 1.15
90-270: 1.19

Total Lumen Output:

135.8 Lumens

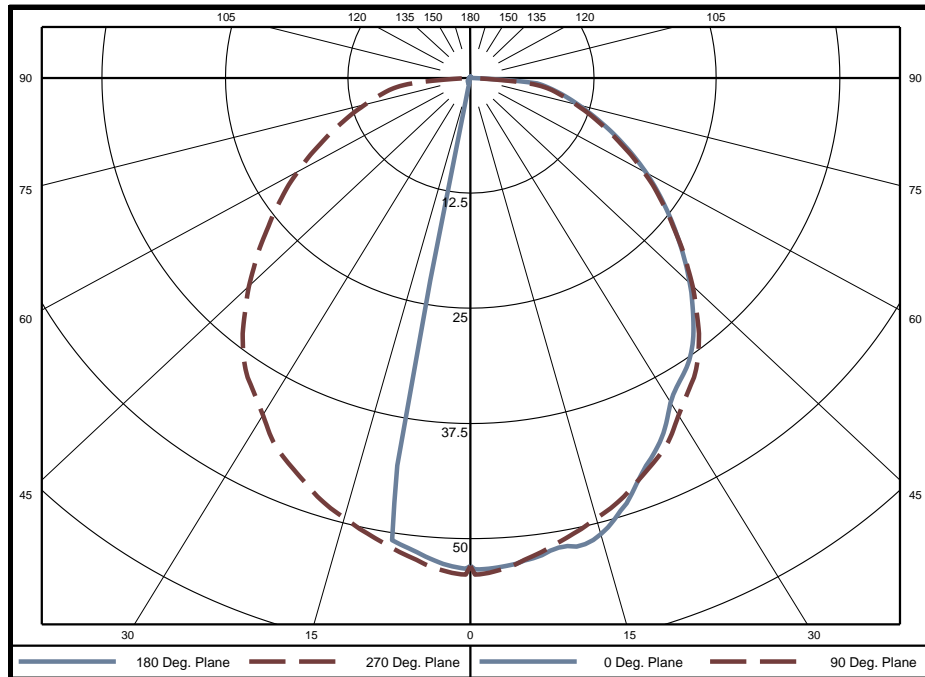
Luminaire Efficacy:

42.9 lm/w

Maximum Candela:

54 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	1.26	0.9%	60-65	8.59	6.3%	120-125	0.02	0.0%
5-10	3.66	2.7%	65-70	7.42	5.5%	125-130	0.02	0.0%
10-15	5.56	4.1%	70-75	6.25	4.6%	130-135	0.02	0.0%
15-20	7.40	5.4%	75-80	5.12	3.8%	135-140	0.02	0.0%
20-25	9.00	6.6%	80-85	3.97	2.9%	140-145	0.02	0.0%
25-30	10.28	7.6%	85-90	1.03	0.8%	145-150	0.02	0.0%
30-35	11.11	8.2%	90-95	0.03	0.0%	150-155	0.02	0.0%
35-40	11.67	8.6%	95-100	0.03	0.0%	155-160	0.02	0.0%
40-45	11.65	8.6%	100-105	0.03	0.0%	160-165	0.02	0.0%
45-50	11.24	8.3%	105-110	0.02	0.0%	165-170	0.01	0.0%
50-55	10.55	7.8%	110-115	0.02	0.0%	170-175	0.01	0.0%
55-60	9.68	7.1%	115-120	0.02	0.0%	175-180	0.00	0.0%

Zone	Lumens	% of Luminaire
0-40	60	44.1%
0-60	103	75.9%
0-90	135	99.7%
90-180	0	0.3%



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	52.98	52.98	52.98	52.98	52.98	52.98	52.98	52.98	52.98	52.98	52.98	52.98	52.98	52.98	52.98
	5	52.97	52.13	51.70	52.30	52.99	52.30	51.43	51.70	52.15	51.70	51.43	52.30	52.99	52.30	51.70
	10	51.79	50.76	50.10	50.58	51.24	50.48	49.59	50.03	42.71	50.03	49.59	50.48	51.24	50.58	50.10
	15	51.29	49.34	48.32	48.78	49.49	48.75	47.79	48.49	0.64	48.49	47.79	48.75	49.49	48.78	48.32
	20	48.05	46.91	46.24	46.85	47.56	46.95	46.16	46.95	0.55	46.95	46.16	46.95	47.56	46.85	46.24
	25	44.62	44.38	44.26	44.85	45.33	44.91	44.32	45.23	0.54	45.23	44.32	44.91	45.33	44.85	44.26
	30	40.74	41.04	41.25	41.76	42.35	42.04	41.44	42.48	0.50	42.48	41.44	42.04	42.35	41.76	41.25
	35	38.38	38.20	38.41	38.73	39.69	39.52	38.57	39.55	0.44	39.55	38.57	39.52	39.69	38.73	38.41
	40	35.33	34.90	35.12	35.15	36.21	36.22	35.27	35.86	0.41	35.86	35.27	36.22	36.21	35.15	35.12
	45	31.60	31.16	31.46	31.32	32.01	32.11	31.49	31.84	0.35	31.84	31.49	32.11	32.01	31.32	31.46
	50	27.78	27.54	27.77	27.55	27.85	27.98	27.73	27.76	0.29	27.76	27.73	27.98	27.85	27.55	27.77
	55	24.14	24.05	24.27	24.00	23.99	24.13	24.14	23.98	0.25	23.98	24.14	24.13	23.99	24.00	24.27
	60	20.71	20.61	20.86	20.59	20.36	20.52	20.62	20.45	0.22	20.45	20.62	20.52	20.36	20.59	20.86
	65	17.29	17.27	17.45	17.19	16.90	17.06	17.15	17.03	0.19	17.03	17.15	17.06	16.90	17.19	17.45
	70	14.17	14.24	14.42	14.18	13.84	14.01	14.16	14.05	0.16	14.05	14.16	14.01	13.84	14.18	14.42
	75	11.45	11.46	11.64	11.50	11.13	11.26	11.53	11.37	0.13	11.37	11.53	11.26	11.13	11.50	11.64
	80	9.11	8.98	9.12	9.11	8.82	8.86	9.16	8.99	0.10	8.99	9.16	8.86	8.82	9.11	9.12
	85	6.82	6.63	6.84	6.30	5.05	5.92	6.82	5.34	0.06	5.34	6.82	5.92	5.05	6.30	6.84
	90	0.13	0.11	0.09	0.07	0.05	0.04	0.04	0.04	0.05	0.04	0.04	0.04	0.05	0.07	0.09
	95	0.10	0.08	0.07	0.06	0.04	0.04	0.04	0.04	0.05	0.04	0.04	0.04	0.04	0.06	0.07
	100	0.09	0.07	0.06	0.05	0.04	0.04	0.04	0.04	0.05	0.04	0.04	0.04	0.04	0.05	0.06
	105	0.08	0.06	0.06	0.05	0.04	0.04	0.04	0.04	0.05	0.04	0.04	0.04	0.04	0.05	0.06
	110	0.07	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.05	0.04	0.04	0.04	0.04	0.05	0.05
	115	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.05	0.04	0.04	0.04	0.04	0.05	0.05
	120	0.07	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.05	0.04	0.04	0.04	0.04	0.05	0.05
	125	0.07	0.05	0.06	0.06	0.05	0.05	0.05	0.05	0.06	0.05	0.05	0.05	0.05	0.06	0.06
	130	0.07	0.05	0.06	0.06	0.05	0.05	0.05	0.05	0.06	0.05	0.05	0.05	0.05	0.06	0.06
	135	0.08	0.06	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07
	140	0.09	0.06	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
	145	0.10	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.08	0.08	0.08	0.08	0.08	0.08
	150	0.11	0.07	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
	155	0.12	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.09	0.09	0.09	0.09	0.09	0.09
	160	0.12	0.09	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.10	0.09	0.09	0.09	0.09
	165	0.12	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.11	0.10	0.10	0.10	0.10	0.10	0.10
	170	0.12	0.10	0.10	0.10	0.10	0.10	0.10	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10
	175	0.12	0.10	0.10	0.10	0.10	0.10	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10
	180	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11

Average Luminance (cd/m²)

Vertical Angle (Degrees)	Horizontal Angle (Degrees)			
	0	45	90	
	0	1944	1944	1944
	45	1639	1632	1661
	55	1544	1553	1535
	65	1501	1515	1467
	75	1623	1650	1577
	85	2871	2881	2126



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	162	162	162	162	158	158	158	158	151	151	151	144	144	144	138	138	138	135
1	146	139	133	128	143	136	131	125	130	126	121	125	121	118	120	117	114	111
2	133	121	111	103	129	118	110	102	114	106	99	109	103	97	105	100	95	92
3	121	106	95	86	118	104	93	85	100	91	83	96	88	82	92	86	80	77
4	111	94	82	73	108	92	81	72	89	79	71	86	77	70	83	75	69	66
5	102	84	72	63	99	83	71	62	80	69	62	77	68	61	74	66	60	57
6	94	76	64	55	92	75	63	55	72	62	54	70	61	53	68	59	53	50
7	88	69	57	49	85	68	56	48	66	55	48	64	54	48	62	53	47	44
8	82	63	51	43	79	62	51	43	60	50	43	58	49	43	57	49	42	40
9	76	58	47	39	74	57	46	39	56	46	39	54	45	39	53	44	38	36
10	72	54	43	36	70	53	42	35	51	42	35	50	41	35	49	41	35	33

Beam and Field Information

CIE Type:	Direct
Center Beam Intensity:	52.98 Candela
Central Cone Intensity:	53 Candela
Beam Flux:	86.3 Lumens
Beam Angle (0-180):	62.2 Degrees
Beam Angle (90-270):	103.3 Degrees
Field Angle (0-180):	96.7 Degrees
Field Angle (90-270):	169.6 Degrees

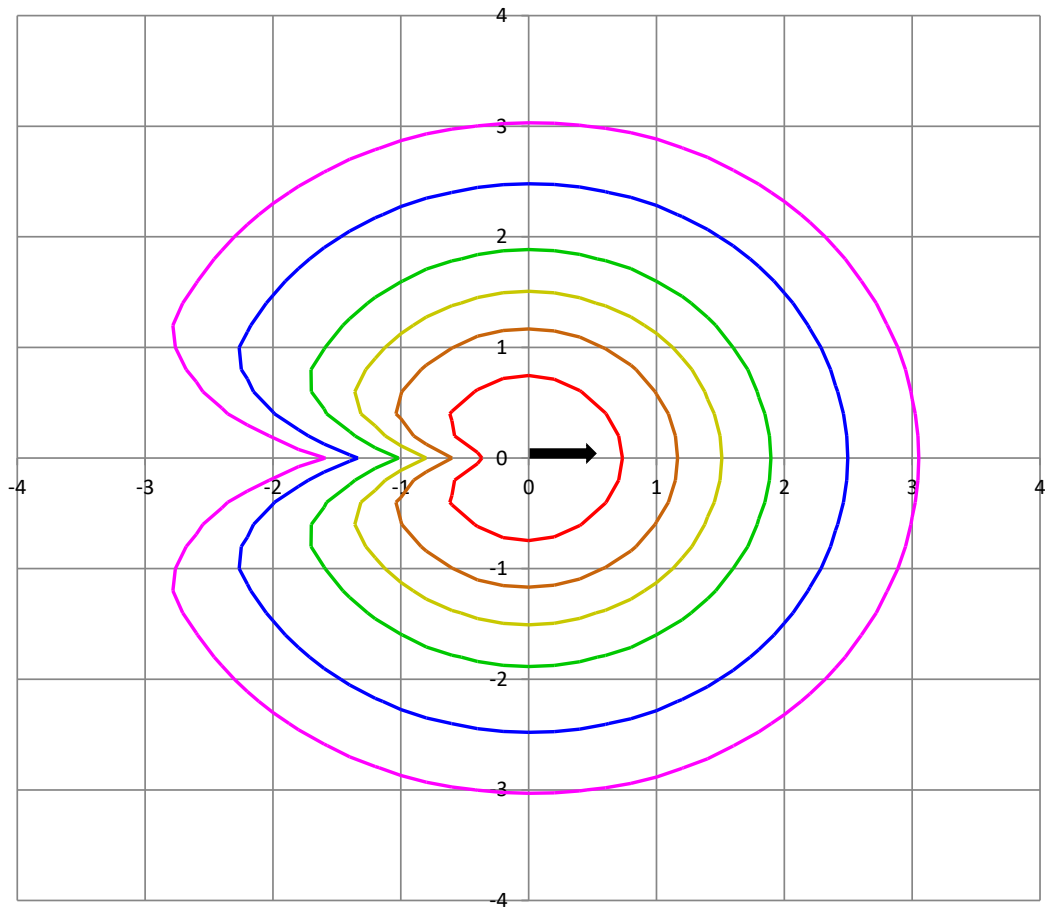
Cone of Light Tabulation

Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		3.31	4.45
6.00		1.47	6.68
8.00		0.828	8.91
10.0		0.530	11.1
12.0		0.368	13.4
14.0		0.270	15.6
16.0		0.207	17.8

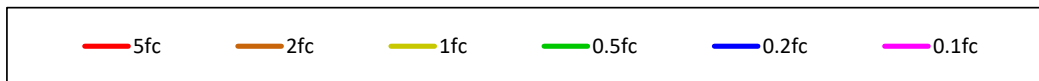


ISOFootcandle Plot

Mounting Height - 2 Feet

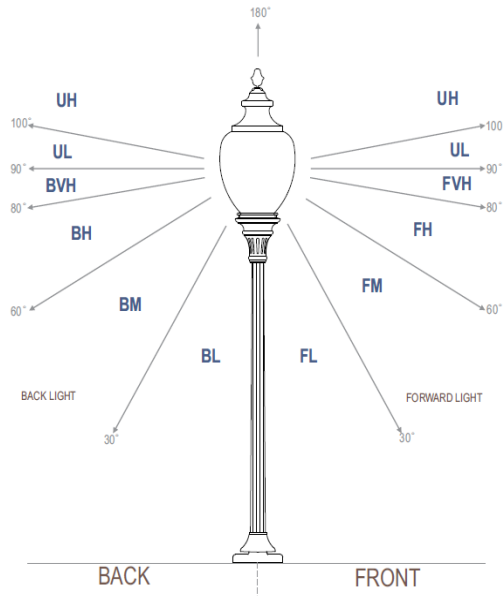


Grid Lines in Units of Mounting Height





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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	19.7	14.3%
FM	(30-60)	34.9	25.4%
FH	(60-80)	14.6	10.7%
FVH	(80-90)	2.7	2.0%
BL	(0-30)	17.9	13.0%
BM	(30-60)	31.6	23.1%
BH	(60-80)	13.0	9.5%
BVH	(80-90)	2.3	1.7%
UL	(90-100)	0.1	0.0%
UH	(100-180)	0.3	0.2%
Total		137.1	100.0%
BUG Rating	B0 U1 G0		



Attachment A

Amended Report Documentation

[illegible]