



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
LWW-1-30 (3000K)

Order Number
12250114
Test Number
12250114.01

Test Date

2018-04-12

Prepared By

Samuel DePue, Technician

Approved By

Alexa Lambert, Project Handler

The results contained in this report pertain only to the tested sample.
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Luminaire Description: Brass housing with brass glare shield, single light source and adjustable knuckle
Lamp: One (1) XP-L 3000K LED with one (1) acrylic optic
Mounting: Flood
Ballast/Driver: Integrated

Luminaire



Luminaire Characteristics

Luminous Length: 2.00 in.
Luminous Width: 3.250 in.
Luminous Height: 1.00 in.

Summary of Results

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

Test Conditions

Test Temperature: 24.4 °C
Voltage: 12.04 VAC
Current: 0.4285 A
Power: 3.162 W
Power Factor: 0.613
Frequency: 60 Hz
Current THD: 88.8 %

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
24.4 °C	12.04 VAC	0.4285 A	3.162 W	0.613	60 Hz	88.8 %

Summary of Results

Spacing Criteria

0-180: 1.25
90-270: 1.15

Total Lumen Output:

157.4 Lumens

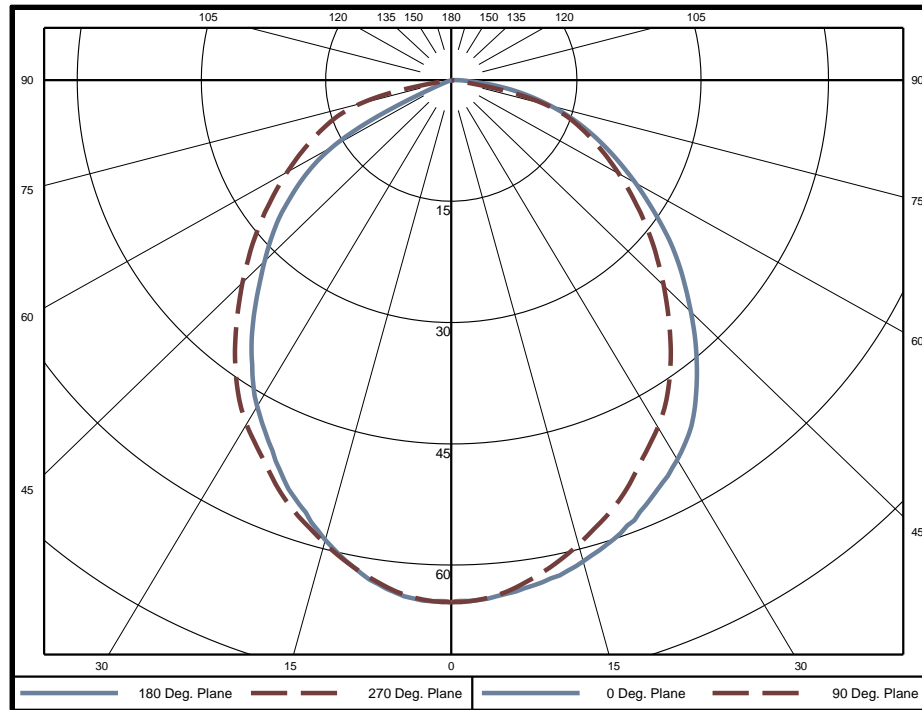
Luminaire Efficacy:

49.8 lm/w

Maximum Candela:

65 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	1.54	1.0%	60-65	9.84	6.3%	120-125	0	0.0%
5-10	4.51	2.9%	65-70	7.68	4.9%	125-130	0	0.0%
10-15	7.22	4.6%	70-75	5.79	3.7%	130-135	0	0.0%
15-20	9.57	6.1%	75-80	3.55	2.3%	135-140	0	0.0%
20-25	11.51	7.3%	80-85	1.80	1.1%	140-145	0	0.0%
25-30	12.96	8.2%	85-90	0.74	0.5%	145-150	0	0.0%
30-35	13.95	8.9%	90-95	0.17	0.1%	150-155	0	0.0%
35-40	14.30	9.1%	95-100	0.01	0.0%	155-160	0	0.0%
40-45	14.17	9.0%	100-105	0	0.0%	160-165	0	0.0%
45-50	13.69	8.7%	105-110	0	0.0%	165-170	0	0.0%
50-55	12.82	8.1%	110-115	0	0.0%	170-175	0	0.0%
55-60	11.54	7.3%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	76	48.0%
0-60	128	81.2%
0-90	157	99.9%
90-180	0	0.1%



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	64.61	64.61	64.61	64.61	64.61	64.61	64.61	64.61	64.61	64.61	64.61	64.61	64.61	64.61	64.61	64.61
	5	64.07	64.25	64.08	63.97	63.93	63.91	63.94	64.06	64.12	64.06	63.94	63.91	63.93	63.97	64.08	64.25
	10	63.09	63.08	62.64	62.18	61.92	61.66	61.51	61.58	61.96	61.58	61.51	61.66	61.92	62.18	62.64	63.08
	15	61.58	61.70	60.95	60.03	59.29	58.58	57.84	58.04	58.71	58.04	57.84	58.58	59.29	60.03	60.95	61.70
	20	59.62	59.75	59.06	57.73	56.36	55.02	54.10	54.07	54.88	54.07	54.10	55.02	56.36	57.73	59.06	59.75
	25	56.97	56.90	56.10	54.62	52.76	50.85	49.82	49.71	50.54	49.71	49.82	50.85	52.76	54.62	56.10	56.90
	30	54.27	54.02	52.61	51.30	49.38	47.03	45.66	45.50	46.42	45.50	45.66	47.03	49.38	51.30	52.61	54.02
	35	50.75	50.16	48.24	47.06	45.30	42.82	41.16	40.93	41.56	40.93	41.16	42.82	45.30	47.06	48.24	50.16
	40	45.90	45.53	43.63	42.35	40.50	38.39	36.80	36.21	36.37	36.21	36.80	38.39	40.50	42.35	43.63	45.53
	45	40.77	40.86	39.27	37.77	35.75	34.22	32.82	31.91	31.46	31.91	32.82	34.22	35.75	37.77	39.27	40.86
	50	35.80	36.18	34.75	33.32	31.28	30.20	28.95	27.80	27.01	27.80	28.95	30.20	31.28	33.32	34.75	36.18
	55	30.62	31.18	30.13	28.82	26.95	26.16	25.00	23.31	22.01	23.31	25.00	26.16	26.95	28.82	30.13	31.18
	60	25.65	26.36	25.70	24.51	22.99	22.31	21.13	18.04	16.04	18.04	21.13	22.31	22.99	24.51	25.70	26.36
	65	21.09	21.91	21.51	20.44	19.29	18.57	17.13	9.19	4.29	9.19	17.13	18.57	19.29	20.44	21.51	21.91
	70	16.86	17.80	17.65	16.65	15.86	15.07	12.31	0.76	0.07	0.76	12.31	15.07	15.86	16.65	17.65	17.80
	75	12.44	13.73	14.08	13.23	11.59	9.31	3.36	0.00	0.00	0.00	3.36	9.31	11.59	13.23	14.08	13.73
	80	7.91	9.61	10.52	9.45	3.07	0.26	0.00	0.00	0.00	0.00	0.00	0.26	3.07	9.45	10.52	9.61
	85	3.18	5.46	6.96	3.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.40	6.96	5.46
	90	0.76	2.37	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.15	2.37
	95	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.00
	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)		0	45	90
	0	15410	15410	15410
	45	9166	8430	9221
	55	7427	6899	7783
	65	5743	5455	6558
	75	4000	4143	4970
	85	1295	2530	0



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	187	187	187	187	183	183	183	183	175	175	175	167	167	167	160	160	160	157
1	172	165	158	152	168	161	155	150	154	149	145	148	144	141	142	139	136	133
2	157	144	134	125	153	141	132	124	136	128	121	130	124	118	126	120	115	112
3	143	127	115	105	139	125	113	104	120	110	102	116	107	100	112	105	98	95
4	132	113	100	89	128	111	98	89	107	96	87	103	94	86	100	92	85	82
5	121	101	88	77	118	100	87	77	96	85	76	93	83	75	90	82	74	71
6	112	92	78	68	109	90	77	68	87	76	67	85	74	66	82	73	66	63
7	104	83	70	60	101	82	69	60	80	68	60	77	67	59	75	66	59	56
8	97	76	63	54	95	75	63	54	73	62	53	71	61	53	69	60	53	50
9	91	70	57	49	89	69	57	49	67	56	48	66	55	48	64	55	48	45
10	85	65	53	44	83	64	52	44	62	52	44	61	51	44	60	50	44	41

Beam and Field Information

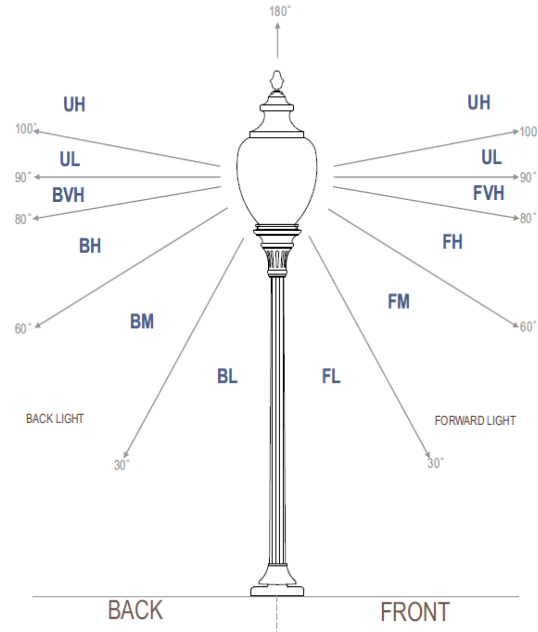
CIE Type:	Direct
Center Beam Intensity:	64.61 Candela
Central Cone Intensity:	64 Candela
Beam Flux:	101.7 Lumens
Beam Angle (0-180):	97.5 Degrees
Beam Angle (90-270):	97.7 Degrees
Field Angle (0-180):	145.8 Degrees
Field Angle (90-270):	156.8 Degrees

Cone of Light Tabulation

Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
6.00		1.79	6.90
10.0		0.646	11.5
14.0		0.330	16.1
18.0		0.199	20.7
22.0		0.133	25.3
26.0		0.0956	29.9
30.0		0.0718	34.5



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	24.5	15.5%
FM	(30-60)	43.6	27.6%
FH	(60-80)	17.5	11.1%
FVH	(80-90)	2.6	1.7%
BL	(0-30)	22.9	14.5%
BM	(30-60)	36.9	23.4%
BH	(60-80)	9.4	6.0%
BVH	(80-90)	0.0	0.0%
UL	(90-100)	0.2	0.1%
UH	(100-180)	0.0	0.0%
Total		157.5	100.0%
BUG Rating	B0 U1 G0		