



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
LWW-2-30 (3000K)

Order Number

12250114

Test Number

12250114.04

Test Date

2018-04-11

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, dual light source and adjustable knuckle
Lamp: Two (2) XP-L 3000K LEDs with two (2) acrylic optics
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: 12.02 VAC
Current: 0.5587 A
Power: 4.153 W
Power Factor: 0.618
Frequency: 60 Hz
Current THD: 93.8 %

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	12.02 VAC	0.5587 A	4.153 W	0.618	60 Hz	93.8 %

Summary of Results

Spacing Criteria

0-180: 1.29
90-270: 1.20

Total Lumen Output:

192.0 Lumens

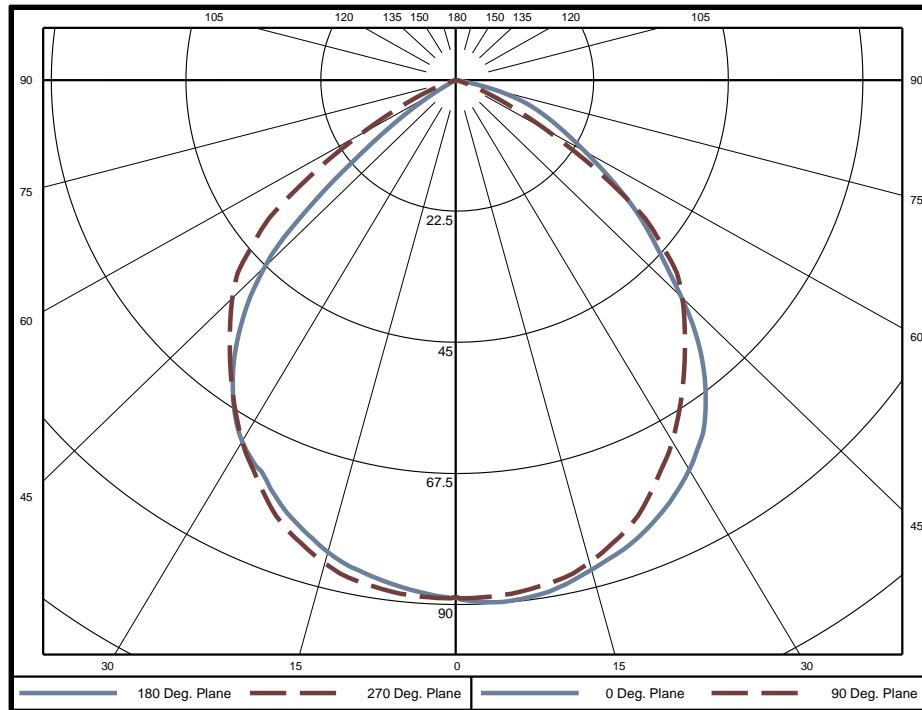
Luminaire Efficacy:

46.2 lm/w

Maximum Candela:

90 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	2.12	1.1%	60-65	7.26	3.8%	120-125	0	0.0%
5-10	6.30	3.3%	65-70	4.11	2.1%	125-130	0	0.0%
10-15	10.26	5.3%	70-75	2.19	1.1%	130-135	0	0.0%
15-20	13.83	7.2%	75-80	1.12	0.6%	135-140	0	0.0%
20-25	16.81	8.8%	80-85	0.56	0.3%	140-145	0	0.0%
25-30	19.06	9.9%	85-90	0.22	0.1%	145-150	0	0.0%
30-35	20.53	10.7%	90-95	0.05	0.0%	150-155	0	0.0%
35-40	20.91	10.9%	95-100	0.00	0.0%	155-160	0	0.0%
40-45	20.33	10.6%	100-105	0	0.0%	160-165	0	0.0%
45-50	18.78	9.8%	105-110	0	0.0%	165-170	0	0.0%
50-55	15.87	8.3%	110-115	0	0.0%	170-175	0	0.0%
55-60	11.69	6.1%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	110	57.2%
0-60	176	91.9%
0-90	192	100.0%
90-180	0	0.0%



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	88.70	88.70	88.70	88.70	88.70	88.70	88.70	88.70	88.70	88.70	88.70	88.70	88.70	88.70	88.70
	5	89.90	89.20	89.03	89.01	88.69	88.19	87.66	87.48	87.79	87.48	87.66	88.19	88.69	89.01	89.20
	10	89.14	88.57	88.42	88.40	87.83	86.91	86.14	85.86	86.11	85.86	86.14	86.91	87.83	88.40	88.57
	15	86.98	86.83	86.82	86.77	85.75	84.88	83.84	83.37	83.74	83.37	83.84	84.88	85.75	86.77	86.82
	20	84.71	84.50	84.12	83.69	82.37	81.27	80.45	79.89	80.21	79.89	80.45	81.27	82.37	83.69	84.12
	25	81.45	80.89	79.96	78.93	77.37	76.09	75.32	75.26	75.64	75.26	75.32	76.09	77.37	78.93	79.96
	30	77.28	76.91	75.06	73.56	71.81	70.56	69.76	70.68	71.83	70.68	69.76	70.56	71.81	73.56	75.06
	35	71.84	71.32	68.51	66.83	65.53	63.93	62.55	64.20	65.49	64.20	62.55	63.93	65.53	66.83	68.51
	40	63.67	63.05	60.73	59.80	59.21	57.35	55.05	55.72	56.93	55.72	55.05	57.35	59.21	59.80	60.73
	45	52.95	53.77	53.03	53.44	53.26	51.01	47.77	45.91	45.70	45.91	47.77	51.01	53.26	53.44	53.03
	50	42.64	43.89	45.95	47.60	45.21	43.94	40.85	31.71	27.10	31.71	40.85	43.94	45.21	47.60	45.95
	55	33.64	34.25	38.81	39.59	32.98	31.72	33.15	15.68	11.36	15.68	33.15	31.72	32.98	39.59	38.81
	60	25.00	26.60	31.06	27.45	18.30	16.30	18.45	4.98	1.91	4.98	18.45	16.30	18.30	27.45	31.06
	65	18.68	19.55	22.63	14.81	8.47	6.89	6.14	0.20	0.00	0.20	6.14	6.89	8.47	14.81	22.63
	70	13.58	13.51	13.79	6.72	2.89	1.66	0.50	0.00	0.00	0.00	0.50	1.66	2.89	6.72	13.79
	75	7.68	7.98	8.03	2.56	0.75	0.23	0.00	0.00	0.00	0.00	0.00	0.23	0.75	2.56	8.03
	80	1.35	5.13	4.71	0.70	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.70	4.71
	85	0.56	2.44	2.47	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	2.47
	90	0.25	0.44	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.44
	95	0.10	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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

Average Luminance (cd/m²)
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	21150	21150
	45	11900	13740
	55	8158	9524
	65	5086	2880
	75	2470	323
	85	227	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	229	229	229	229	223	223	223	223	213	213	213	204	204	204	196	196	196	192
1	213	206	199	193	208	201	195	190	193	189	184	186	182	179	179	176	173	170
2	197	184	173	164	192	180	170	162	174	165	158	168	161	155	162	156	151	148
3	182	165	151	140	177	162	149	139	156	146	137	151	142	135	146	139	132	129
4	168	148	133	122	164	145	132	121	141	129	119	137	126	118	133	124	116	113
5	156	134	118	107	152	131	117	106	128	115	105	124	113	104	121	111	103	99
6	144	121	106	94	141	119	105	94	116	103	93	113	101	93	110	100	92	88
7	134	111	95	84	131	109	94	84	106	93	83	104	92	83	101	90	82	79
8	125	101	86	76	123	100	86	76	98	85	75	95	83	75	93	82	74	71
9	117	93	79	69	115	92	78	69	90	77	68	88	76	68	86	76	68	64
10	110	86	72	63	108	85	72	63	84	71	62	82	70	62	80	69	62	59

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	88.70 Candela
Central Cone Intensity:	89 Candela
Beam Flux:	146.8 Lumens
Beam Angle (0-180):	94.6 Degrees
Beam Angle (90-270):	100.9 Degrees
Field Angle (0-180):	130.2 Degrees
Field Angle (90-270):	129.5 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
6.00		2.46	7.32
10.0		0.887	12.2
14.0		0.453	17.1
18.0		0.274	22.0
22.0		0.183	26.8
26.0		0.131	31.7
30.0		0.0986	36.6



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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	34.9	18.2%
FM	(30-60)	58.3	30.4%
FH	(60-80)	12.1	6.3%
FVH	(80-90)	0.8	0.4%
BL	(0-30)	33.5	17.5%
BM	(30-60)	49.5	25.8%
BH	(60-80)	2.6	1.3%
BVH	(80-90)	0.0	0.0%
UL	(90-100)	0.1	0.0%
UH	(100-180)	0.0	0.0%
Total		191.7	100.0%
BUG Rating	B0 U1 G0		