



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
LQPL-1-40 (4000K)

Order Number

12250114

Test Number

12250114.77A

Revision of Test Number 12250114.77 on:

2021-06-14

Test Date

2018-05-07

Prepared By

Cordaryl Cousar, 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 rectangular housing with acrylic optic and adjustable knuckle
Lamp: One (1) XP-L 4000K LED with one (1) acrylic optic
Mounting: Flood
Ballast/Driver: Integrated

Luminaire



Luminaire Characteristics

Luminous Diameter: 1.00 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: 12.26 VAC
Current: 0.4349 A
Power: 3.265 W
Power Factor: 0.613
Frequency: 60 Hz
Current THD: 88.1 %

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	12.26 VAC	0.4349 A	3.265 W	0.613	60 Hz	88.1 %

Summary of Results

Spacing Criteria

0-180: 1.18
90-270: 1.18

Total Lumen Output:

190.4 Lumens

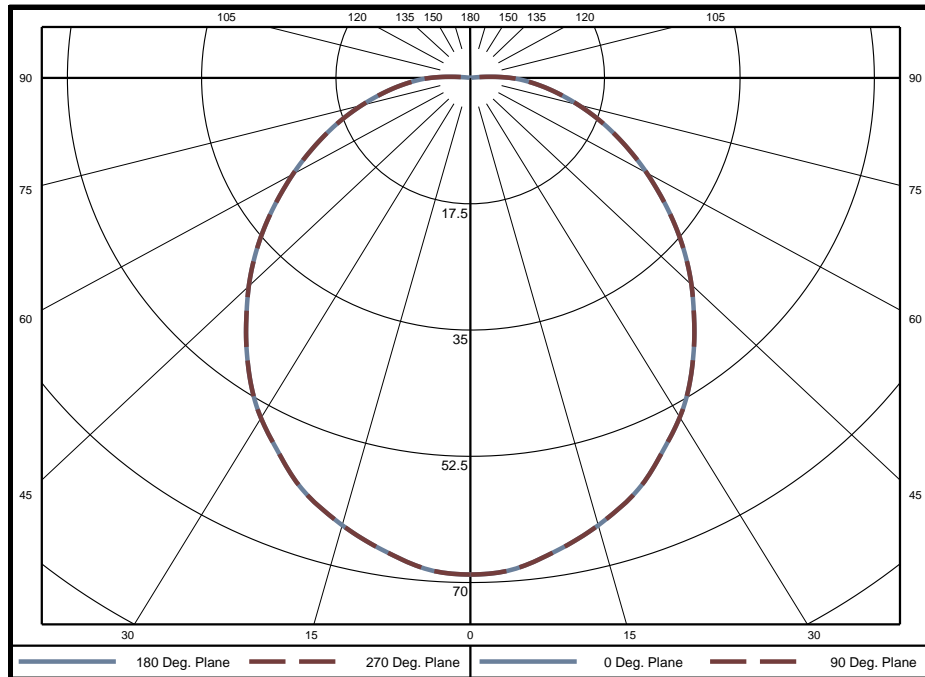
Luminaire Efficacy:

58.3 lm/w

Maximum Candela:

69 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	1.64	0.9%	60-65	11.85	6.2%	120-125	0	0.0%
5-10	4.82	2.5%	65-70	10.26	5.4%	125-130	0	0.0%
10-15	7.75	4.1%	70-75	8.58	4.5%	130-135	0	0.0%
15-20	10.37	5.4%	75-80	6.86	3.6%	135-140	0	0.0%
20-25	12.57	6.6%	80-85	5.24	2.8%	140-145	0	0.0%
25-30	14.23	7.5%	85-90	3.68	1.9%	145-150	0	0.0%
30-35	15.40	8.1%	90-95	1.77	0.9%	150-155	0	0.0%
35-40	15.91	8.4%	95-100	0.19	0.1%	155-160	0	0.0%
40-45	15.90	8.4%	100-105	0	0.0%	160-165	0	0.0%
45-50	15.48	8.1%	105-110	0	0.0%	165-170	0	0.0%
50-55	14.58	7.7%	110-115	0	0.0%	170-175	0	0.0%
55-60	13.31	7.0%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	83	43.4%
0-60	142	74.6%
0-90	188	99.0%
90-180	2	1.0%



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	68.89	68.89	68.89	68.89	68.89	68.89	68.89	68.89	68.89	68.89	68.89	68.89	68.89	68.89	68.89
	5	68.31	68.31	68.31	68.31	68.31	68.31	68.31	68.31	68.31	68.31	68.31	68.31	68.31	68.31	68.31
	10	66.42	66.42	66.42	66.42	66.42	66.42	66.42	66.42	66.42	66.42	66.42	66.42	66.42	66.42	66.42
	15	64.25	64.25	64.25	64.25	64.25	64.25	64.25	64.25	64.25	64.25	64.25	64.25	64.25	64.25	64.25
	20	61.68	61.68	61.68	61.68	61.68	61.68	61.68	61.68	61.68	61.68	61.68	61.68	61.68	61.68	61.68
	25	58.11	58.11	58.11	58.11	58.11	58.11	58.11	58.11	58.11	58.11	58.11	58.11	58.11	58.11	58.11
	30	54.43	54.43	54.43	54.43	54.43	54.43	54.43	54.43	54.43	54.43	54.43	54.43	54.43	54.43	54.43
	35	50.10	50.10	50.10	50.10	50.10	50.10	50.10	50.10	50.10	50.10	50.10	50.10	50.10	50.10	50.10
	40	45.33	45.33	45.33	45.33	45.33	45.33	45.33	45.33	45.33	45.33	45.33	45.33	45.33	45.33	45.33
	45	40.68	40.68	40.68	40.68	40.68	40.68	40.68	40.68	40.68	40.68	40.68	40.68	40.68	40.68	40.68
	50	35.96	35.96	35.96	35.96	35.96	35.96	35.96	35.96	35.96	35.96	35.96	35.96	35.96	35.96	35.96
	55	31.15	31.15	31.15	31.15	31.15	31.15	31.15	31.15	31.15	31.15	31.15	31.15	31.15	31.15	31.15
	60	26.56	26.56	26.56	26.56	26.56	26.56	26.56	26.56	26.56	26.56	26.56	26.56	26.56	26.56	26.56
	65	22.27	22.27	22.27	22.27	22.27	22.27	22.27	22.27	22.27	22.27	22.27	22.27	22.27	22.27	22.27
	70	18.31	18.31	18.31	18.31	18.31	18.31	18.31	18.31	18.31	18.31	18.31	18.31	18.31	18.31	18.31
	75	14.56	14.56	14.56	14.56	14.56	14.56	14.56	14.56	14.56	14.56	14.56	14.56	14.56	14.56	14.56
	80	11.17	11.17	11.17	11.17	11.17	11.17	11.17	11.17	11.17	11.17	11.17	11.17	11.17	11.17	11.17
	85	8.14	8.14	8.14	8.14	8.14	8.14	8.14	8.14	8.14	8.14	8.14	8.14	8.14	8.14	8.14
	90	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19
	95	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32
	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)

Vertical Angle (Degrees)	Horizontal Angle (Degrees)			
	0	45	90	
	0	136000	136000	136000
	45	113600	113600	113600
	55	107200	107200	107200
	65	104000	104000	104000
	75	111000	111000	111000
	85	184300	184300	184300



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	226	226	226	226	221	221	221	221	210	210	210	201	201	201	192	192	192	188
1	204	194	185	177	199	190	181	174	181	174	168	173	168	162	166	161	157	153
2	185	169	155	143	180	165	152	141	158	147	138	151	142	134	145	137	131	127
3	169	148	132	119	164	145	130	118	139	126	115	133	122	113	128	119	111	106
4	155	131	114	101	150	128	112	100	123	109	98	119	107	97	114	104	95	91
5	142	117	100	87	138	115	99	86	111	96	85	107	94	84	103	92	83	79
6	132	106	88	76	128	104	87	76	100	86	75	97	84	74	93	82	73	69
7	122	96	79	67	119	94	78	67	91	77	66	88	75	66	85	74	65	61
8	114	88	71	60	111	86	71	60	84	69	59	81	68	59	79	67	58	55
9	106	81	65	54	104	79	64	54	77	63	54	75	62	53	73	61	53	49
10	100	74	59	49	97	73	59	49	71	58	49	69	57	48	68	56	48	45

Beam and Field Information

CIE Type:	Direct
Center Beam Intensity:	68.89 Candela
Central Cone Intensity:	69 Candela
Beam Flux:	118.7 Lumens
Beam Angle (0-180):	103.2 Degrees
Beam Angle (90-270):	103.2 Degrees
Field Angle (0-180):	174.4 Degrees
Field Angle (90-270):	174.4 Degrees

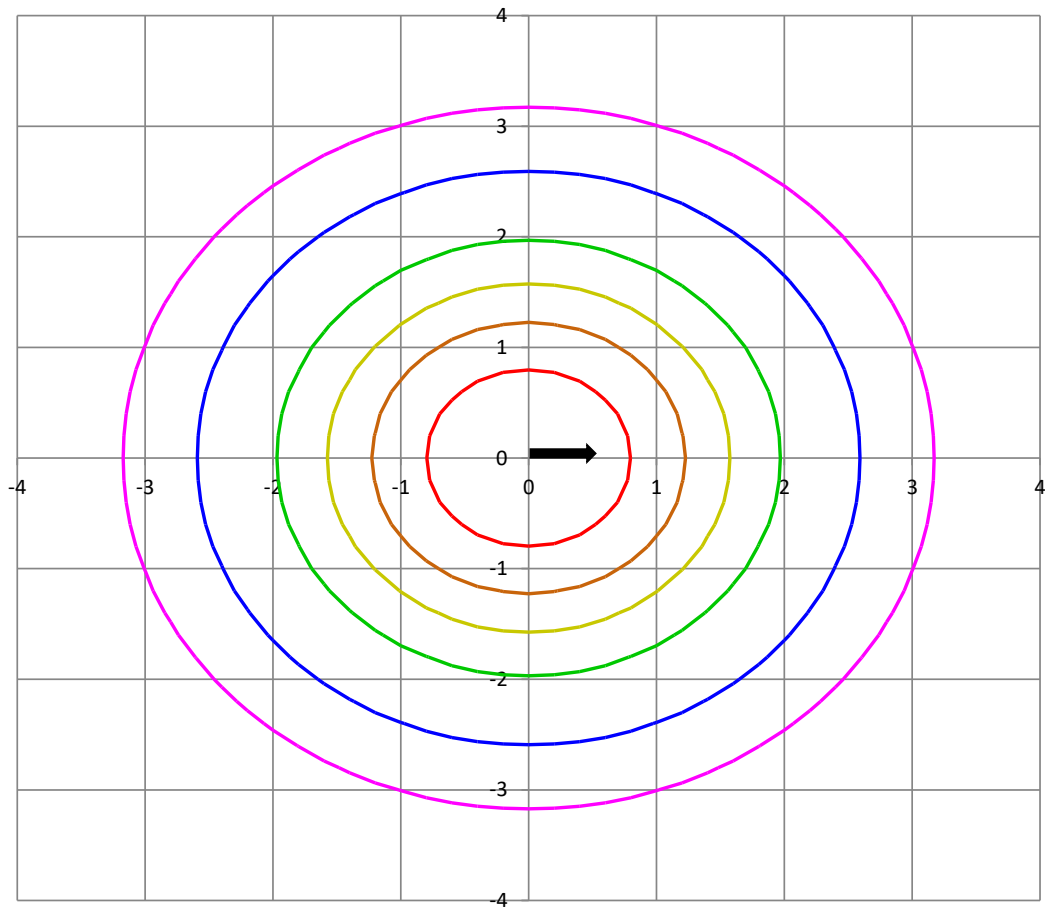
Cone of Light Tabulation

Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		4.31	4.73
6.00		1.91	7.09
8.00		1.08	9.46
10.0		0.689	11.8
12.0		0.478	14.2
14.0		0.351	16.5
16.0		0.269	18.9

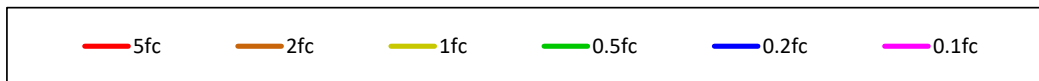


ISOFootcandle Plot

Mounting Height - 2 Feet

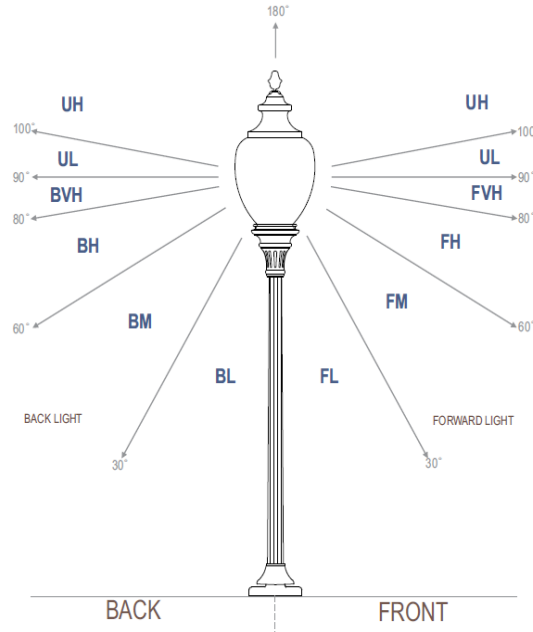


Grid Lines in Units of Mounting Height





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



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	25.8	13.5%
FM	(30-60)	45.4	23.8%
FH	(60-80)	18.8	9.9%
FVH	(80-90)	4.5	2.3%
BL	(0-30)	25.8	13.5%
BM	(30-60)	45.4	23.8%
BH	(60-80)	18.8	9.9%
BVH	(80-90)	4.5	2.3%
UL	(90-100)	1.9	1.0%
UH	(100-180)	0.0	0.0%
Total		190.8	100.0%
BUG Rating	B0 U1 G0		