



UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300



Indoor Distribution Test Report

Relevant Standards
IES LM-79-2008
ANSI C82.77-2002

Prepared For
Simkar Corporation

Andre Duljas
700 Ramona Ave
Philadelphia, PA 19120
United States

Catalog Number
LCH2FA2535U1

Order Number
11410469
Test Number
1276871

Test Date

2016-08-18

Prepared By

Samuel DePue, 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: White steel housing, frosted plastic linear prismatic lens, white end caps
Lamp: 48 white LEDs
Mounting: Surface
Ballast/Driver: One Eagle Rise EWP028C0750LED4P

Luminaire



Luminaire Characteristics

Luminous Length: 24.00 in.
Luminous Width: 4.250 in.
Luminous Height: 1.50 in.

Summary of Results

Total Luminaire Output: 2280 Lumens
Luminaire Efficacy: 116.9 lm/w
Maximum Candela: 700 Candela

Test Conditions

Test Temperature: 25.3 °C
Voltage: 120.0 VAC
Current: 0.1660 A
Power: 19.50 W
Power Factor: 0.979
Frequency: 60 Hz
Current THD: 14.0 %

Laboratory results may not be representative of field performance
Ballast factors have not been applied



Distribution - Goniophotometer

Distribution Test Conditions

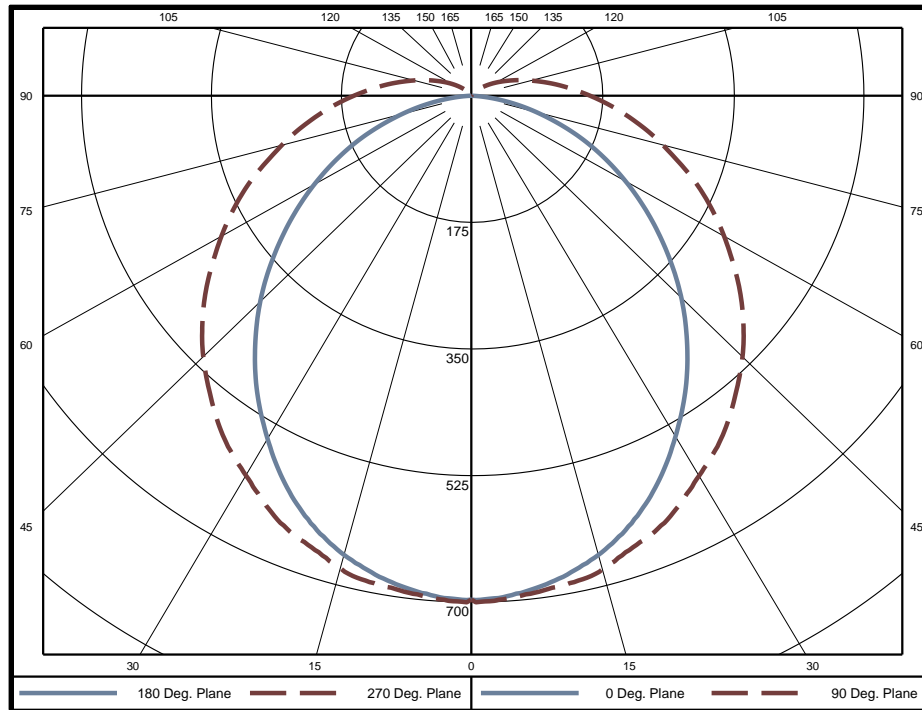
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.3 °C	120.0 VAC	0.1660 A	19.50 W	0.979	60 Hz	14.0 %

Summary of Results

Spacing Criteria
 0-180: 1.17
 90-270: 1.17

Total Lumen Output: 2280 Lumens
Luminaire Efficacy: 116.9 lm/w
Maximum Candela: 700 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	16.6	0.7%	60-65	142.5	6.3%	120-125	5.6	0.2%
5-10	49.1	2.2%	65-70	126.0	5.5%	125-130	3.6	0.2%
10-15	79.9	3.5%	70-75	106.8	4.7%	130-135	2.1	0.1%
15-20	107.6	4.7%	75-80	88.4	3.9%	135-140	1.1	0.0%
20-25	131.5	5.8%	80-85	70.2	3.1%	140-145	0.5	0.0%
25-30	150.1	6.6%	85-90	54.1	2.4%	145-150	0.1	0.0%
30-35	163.9	7.2%	90-95	41.5	1.8%	150-155	0.0	0.0%
35-40	172.8	7.6%	95-100	31.5	1.4%	155-160	0	0.0%
40-45	176.1	7.7%	100-105	23.4	1.0%	160-165	0	0.0%
45-50	174.3	7.6%	105-110	17.0	0.7%	165-170	0	0.0%
50-55	167.4	7.3%	110-115	12.1	0.5%	170-175	0	0.0%
55-60	156.4	6.9%	115-120	8.4	0.4%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	872	38.2%
0-60	1546	67.8%
0-90	2134	93.6%
90-180	147	6.4%



Candela Tabulation
Horizontal 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	696.4	696.4	696.4	696.4	696.4	696.4	696.4	696.4	696.4	696.4	696.4	696.4	696.4	696.4	696.4	696.4
5	690.8	691.2	689.9	690.1	695.0	690.1	689.9	691.2	690.8	691.2	689.9	690.1	695.0	690.1	689.9	691.2
10	677.5	679.1	679.7	682.4	687.9	682.4	679.7	679.1	677.5	679.1	679.7	682.4	687.9	682.4	679.7	679.1
15	657.3	659.6	663.7	670.4	676.8	670.4	663.7	659.6	657.3	659.6	663.7	670.4	676.8	670.4	663.7	659.6
20	628.8	632.8	639.7	648.6	656.3	648.6	639.7	632.8	628.8	632.8	639.7	648.6	656.3	648.6	639.7	632.8
25	591.1	597.7	610.7	625.6	635.4	625.6	610.7	597.7	591.1	597.7	610.7	625.6	635.4	625.6	610.7	597.7
30	546.5	555.5	573.9	594.5	606.0	594.5	573.9	555.5	546.5	555.5	573.9	594.5	606.0	594.5	573.9	555.5
35	500.3	512.1	537.5	564.8	578.7	564.8	537.5	512.1	500.3	512.1	537.5	564.8	578.7	564.8	537.5	512.1
40	450.5	464.9	496.3	529.6	544.7	529.6	496.3	464.9	450.5	464.9	496.3	529.6	544.7	529.6	496.3	464.9
45	399.4	415.8	453.8	492.9	509.8	492.9	453.8	415.8	399.4	415.8	453.8	492.9	509.8	492.9	453.8	415.8
50	345.8	364.5	408.4	452.7	471.2	452.7	408.4	364.5	345.8	364.5	408.4	452.7	471.2	452.7	408.4	364.5
55	292.9	313.4	362.0	410.4	429.8	410.4	362.0	313.4	292.9	313.4	362.0	410.4	429.8	410.4	362.0	313.4
60	241.1	263.6	316.4	368.0	388.0	368.0	316.4	263.6	241.1	263.6	316.4	368.0	388.0	368.0	316.4	263.6
65	191.1	215.6	272.7	326.5	347.0	326.5	272.7	215.6	191.1	215.6	272.7	326.5	347.0	326.5	272.7	215.6
70	141.5	168.9	229.1	284.3	304.8	284.3	229.1	168.9	141.5	168.9	229.1	284.3	304.8	284.3	229.1	168.9
75	94.0	125.2	188.3	243.6	263.8	243.6	188.3	125.2	94.0	125.2	188.3	243.6	263.8	243.6	188.3	125.2
80	51.6	87.7	152.2	207.1	226.4	207.1	152.2	87.7	51.6	87.7	152.2	207.1	226.4	207.1	152.2	87.7
85	16.2	56.5	119.8	172.3	191.1	172.3	119.8	56.5	16.2	56.5	119.8	172.3	191.1	172.3	119.8	56.5
90	0.0	33.3	91.6	140.9	158.0	140.9	91.6	33.3	0.0	33.3	91.6	140.9	158.0	140.9	91.6	33.3
95	0.0	18.3	68.6	112.9	128.9	112.9	68.6	18.3	0.0	18.3	68.6	112.9	128.9	112.9	68.6	18.3
100	0.0	9.6	50.5	89.4	103.5	89.4	50.5	9.6	0.0	9.6	50.5	89.4	103.5	89.4	50.5	9.6
105	0.0	4.6	36.3	69.2	81.4	69.2	36.3	4.6	0.0	4.6	36.3	69.2	81.4	69.2	36.3	4.6
110	0.0	1.8	25.5	52.4	63.1	52.4	25.5	1.8	0.0	1.8	25.5	52.4	63.1	52.4	25.5	1.8
115	0.0	0.4	17.6	39.0	47.7	39.0	17.6	0.4	0.0	0.4	17.6	39.0	47.7	39.0	17.6	0.4
120	0.0	0.0	11.8	28.3	35.4	28.3	11.8	0.0	0.0	0.0	11.8	28.3	35.4	28.3	11.8	0.0
125	0.0	0.0	7.4	19.9	25.4	19.9	7.4	0.0	0.0	0.0	7.4	19.9	25.4	19.9	7.4	0.0
130	0.0	0.0	4.2	13.2	17.4	13.2	4.2	0.0	0.0	0.0	4.2	13.2	17.4	13.2	4.2	0.0
135	0.0	0.0	2.0	8.2	11.1	8.2	2.0	0.0	0.0	0.0	2.0	8.2	11.1	8.2	2.0	0.0
140	0.0	0.0	0.6	4.4	6.3	4.4	0.6	0.0	0.0	0.0	0.6	4.4	6.3	4.4	0.6	0.0
145	0.0	0.0	0.0	1.9	3.0	1.9	0.0	0.0	0.0	0.0	0.0	1.9	3.0	1.9	0.0	0.0
150	0.0	0.0	0.0	0.4	0.7	0.4	0.0	0.0	0.0	0.0	0.0	0.4	0.7	0.4	0.0	0.0
155	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

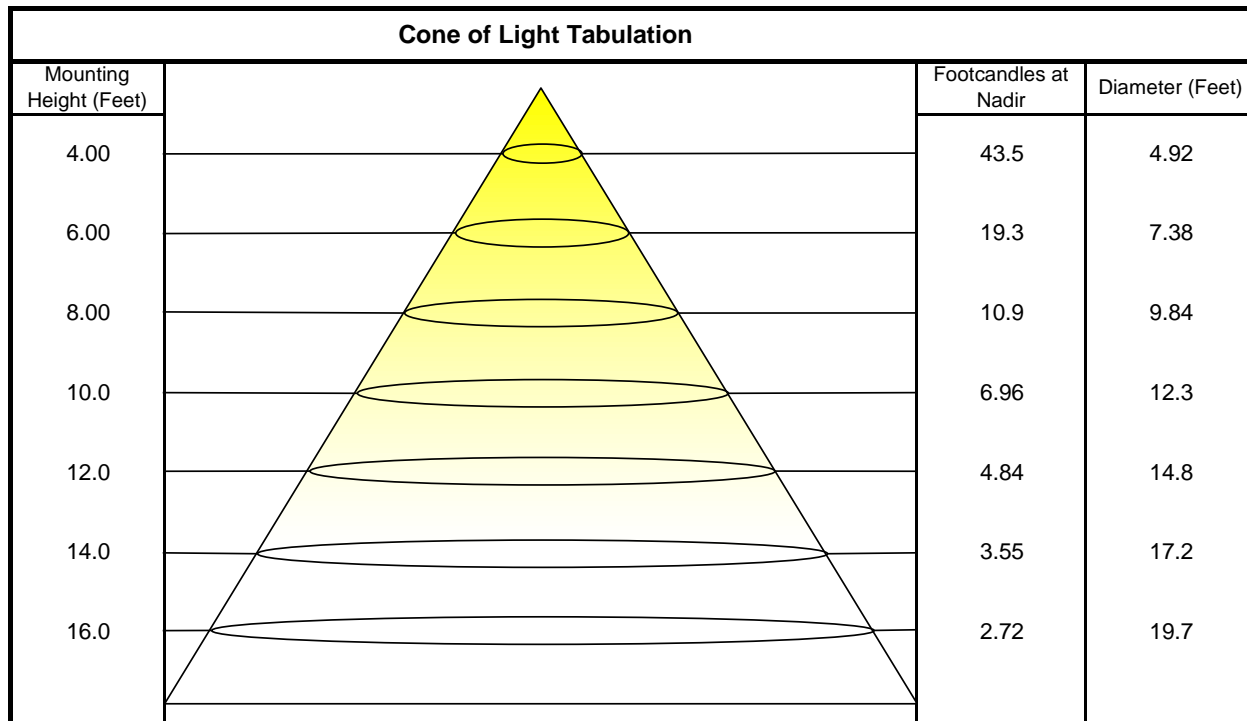
	0	45	90
0	10580	10580	10580
45	8079	7538	8098
55	7124	6757	7570
65	6058	6015	7102
75	4476	5274	6685
85	1644	4795	6620



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	2680	2680	2680	2680	2600	2600	2600	2600	2452	2452	2452	2317	2317	2317	2192	2192	2192	2134
1	2406	2280	2167	2066	2326	2213	2110	2018	2087	2003	1927	1972	1904	1841	1866	1811	1761	1701
2	2174	1969	1799	1656	2098	1912	1756	1624	1806	1676	1564	1708	1600	1506	1617	1529	1450	1390
3	1976	1720	1522	1364	1905	1672	1489	1342	1582	1426	1299	1498	1367	1257	1420	1311	1217	1159
4	1805	1519	1309	1148	1740	1478	1283	1132	1401	1233	1100	1330	1186	1069	1263	1141	1039	983
5	1658	1354	1141	985	1599	1319	1121	972	1254	1080	948	1192	1042	924	1135	1005	900	846
6	1530	1217	1007	857	1476	1187	990	847	1131	957	827	1078	925	808	1029	895	790	738
7	1418	1102	898	755	1369	1077	884	747	1028	856	731	982	829	715	939	803	700	651
8	1319	1005	807	671	1275	983	795	665	940	772	652	900	749	639	862	727	626	580
9	1232	922	731	603	1192	902	721	597	865	701	587	830	682	576	797	663	565	521
10	1155	850	667	546	1118	833	658	541	800	641	532	769	624	523	740	608	513	472

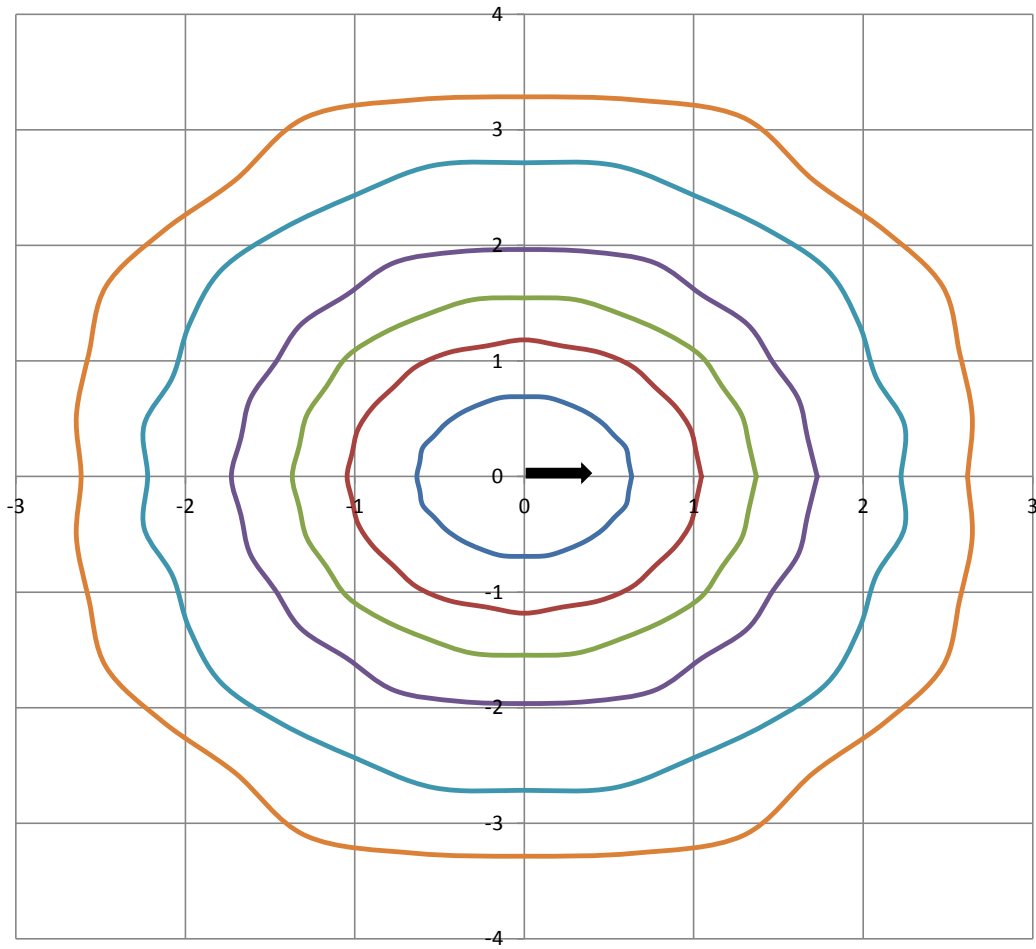
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	696.4 Candela
Central Cone Intensity:	694 Candela
Beam Flux:	1468.0 Lumens
Beam Angle (0-180):	99.5 Degrees
Beam Angle (90-270):	129.7 Degrees
Field Angle (0-180):	155.7 Degrees
Field Angle (90-270):	216.3 Degrees





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

