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Indoor Distribution Test Report

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

Prepared For
TechBrite LLC
1000 Kieley Pl
Cincinnati, OH 45217
United States

Catalog Number
LT224SS1B50AC000,RT224SS1B50AC000
Order Number
11748594
Test Number
11748594.24

Test Date

2017-05-05

Prepared By

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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, prismatic lens enclosure. Tested in an A.L.P EL 2x2 housing.
Lamp: 112 white LEDs
Mounting: Surface – Ceiling
Ballast/Driver: Everline D700CC30UNVTZ-C

Luminaire



Luminaire Characteristics

Luminous Length: 21.00 in.
Luminous Width: 21.00 in.

Summary of Results

Total Luminaire Output:	2627 Lumens
Luminaire Efficacy:	115.2 lm/w
Maximum Candela:	1152 Candela

Test Conditions

Test Temperature:	24.9 °C
Voltage:	120.0 VAC
Current:	0.1911 A
Power:	22.81 W
Power Factor:	0.995
Frequency:	60 Hz
Current THD:	8.98 %

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



Distribution - Goniophotometer

Distribution Test Conditions

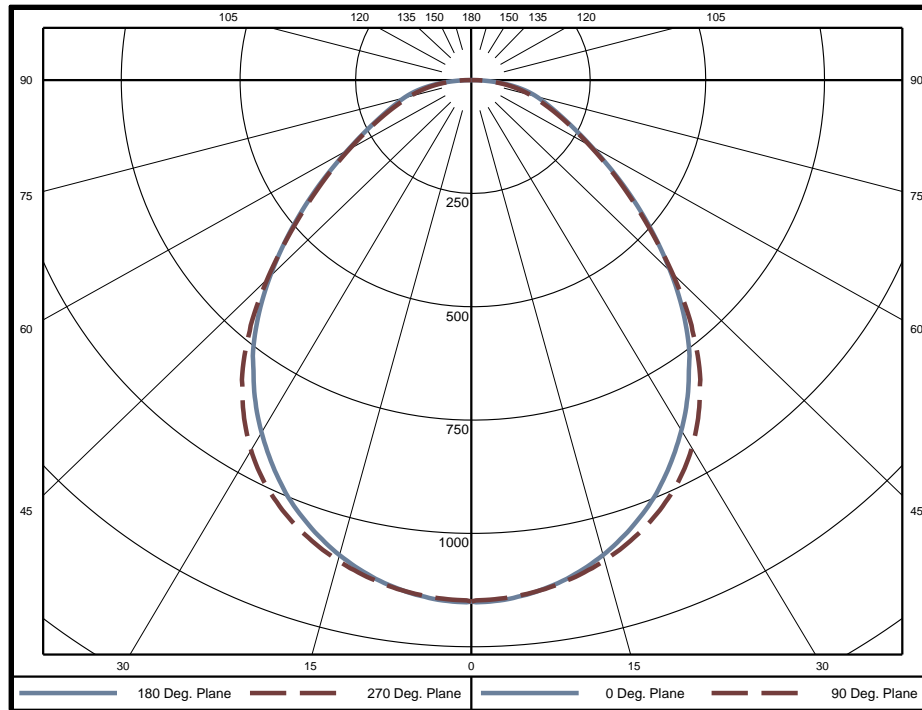
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.9 °C	120.0 VAC	0.1911 A	22.81 W	0.995	60 Hz	8.98 %

Summary of Results

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

Total Lumen Output: 2627 Lumens
Luminaire Efficacy: 115.2 lm/w
Maximum Candela: 1152 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	27.4	1.0%	60-65	125.2	4.8%	120-125	0	0.0%
5-10	81.1	3.1%	65-70	100.2	3.8%	125-130	0	0.0%
10-15	131.4	5.0%	70-75	80.2	3.1%	130-135	0	0.0%
15-20	176.2	6.7%	75-80	62.0	2.4%	135-140	0	0.0%
20-25	213.5	8.1%	80-85	40.7	1.5%	140-145	0	0.0%
25-30	241.0	9.2%	85-90	15.6	0.6%	145-150	0	0.0%
30-35	256.5	9.8%	90-95	0	0.0%	150-155	0	0.0%
35-40	259.2	9.9%	95-100	0	0.0%	155-160	0	0.0%
40-45	247.4	9.4%	100-105	0	0.0%	160-165	0	0.0%
45-50	222.4	8.5%	105-110	0	0.0%	165-170	0	0.0%
50-55	190.2	7.2%	110-115	0	0.0%	170-175	0	0.0%
55-60	156.2	5.9%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1386	52.8%
0-60	2203	83.8%
0-90	2626	100.0%
90-180	0	0.0%



Candela Tabulation
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	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	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
5	1144	1144	1145	1142	1142	1142	1145	1144	1144	1144	1145	1142	1142	1142	1145	1144
10	1122	1122	1125	1125	1125	1125	1125	1122	1122	1122	1125	1125	1125	1125	1125	1122
15	1085	1087	1092	1095	1097	1095	1092	1087	1085	1087	1092	1095	1097	1095	1092	1087
20	1035	1037	1046	1054	1060	1054	1046	1037	1035	1037	1046	1054	1060	1054	1046	1037
25	973	975	987	1001	1008	1001	987	975	973	975	987	1001	1008	1001	987	975
30	897	899	912	930	940	930	912	899	897	899	912	930	940	930	912	899
35	811	812	824	840	851	840	824	812	811	812	824	840	851	840	824	812
40	716	714	724	736	740	736	724	714	716	714	724	736	740	736	724	714
45	606	607	615	612	611	612	615	607	606	607	615	612	611	612	615	607
50	494	497	498	487	486	487	498	497	494	497	498	487	486	487	498	497
55	390	391	385	379	382	379	385	391	390	391	385	379	382	379	385	391
60	301	301	291	289	296	289	291	301	301	301	291	289	296	289	291	301
65	234	231	217	219	228	219	217	231	234	231	217	219	228	219	217	231
70	185	182	166	168	175	168	166	182	185	182	166	168	175	168	166	182
75	147	140	127	129	133	129	127	140	147	140	127	129	133	129	127	140
80	107	102	93	90	93	90	93	102	107	102	93	90	93	90	93	102
85	56	55	51	48	50	48	51	55	56	55	51	48	50	48	51	55
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155	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
165	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
175	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

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

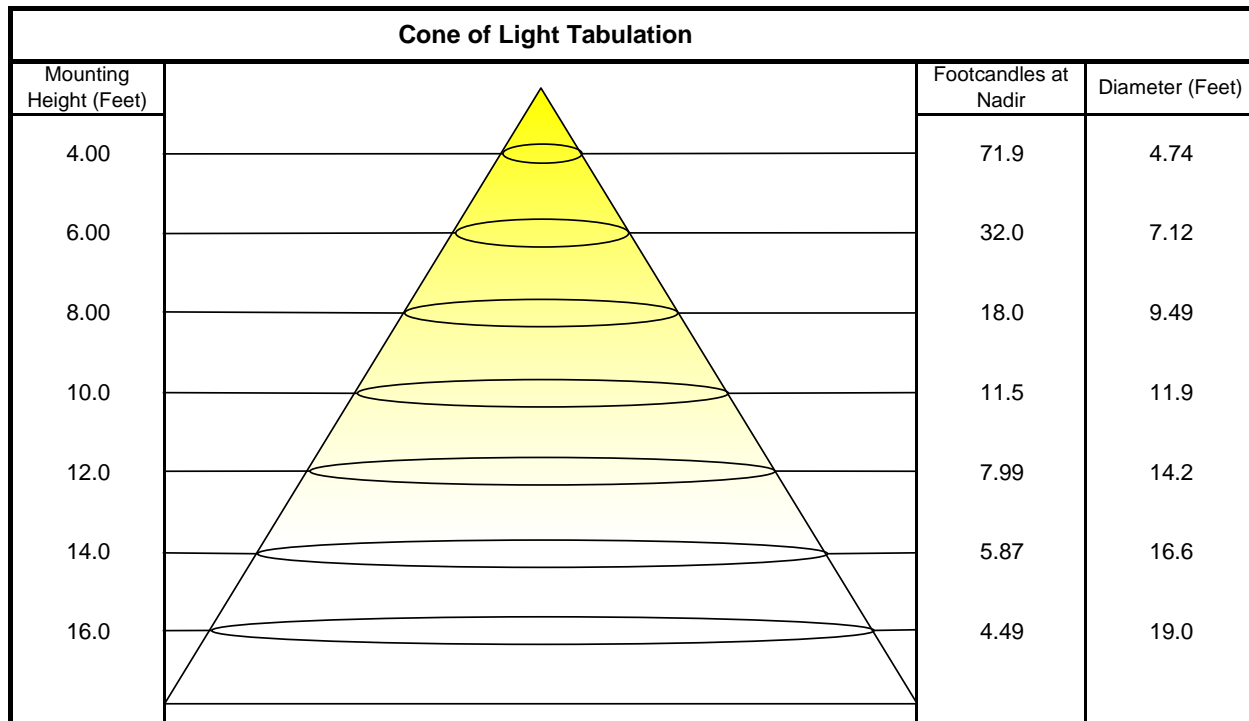
Vertical Angle (Degrees)	Horizontal Angle (Degrees)		
	0	45	90
0	4043	4043	4043
45	3011	3054	3038
55	2388	2360	2341
65	1945	1807	1897
75	2000	1726	1807
85	2260	2043	2003



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	3127	3127	3127	3127	3054	3054	3054	3054	2918	2918	2918	2794	2794	2794	2680	2680	2680	2627
1	2875	2757	2651	2556	2804	2698	2602	2515	2587	2508	2435	2485	2420	2361	2391	2339	2291	2237
2	2636	2434	2267	2126	2569	2385	2231	2100	2293	2164	2052	2208	2100	2006	2130	2041	1961	1907
3	2422	2163	1962	1802	2359	2122	1936	1786	2045	1886	1755	1974	1838	1725	1908	1794	1696	1641
4	2232	1936	1719	1553	2174	1902	1699	1542	1837	1661	1522	1777	1625	1501	1721	1590	1482	1427
5	2064	1745	1522	1357	2010	1716	1506	1350	1661	1477	1335	1611	1448	1321	1563	1421	1307	1254
6	1914	1582	1359	1199	1866	1558	1347	1194	1511	1324	1184	1468	1301	1174	1428	1280	1164	1112
7	1782	1443	1224	1070	1738	1422	1214	1066	1383	1195	1059	1346	1177	1051	1311	1160	1044	994
8	1664	1324	1110	963	1624	1306	1102	960	1272	1086	954	1240	1072	949	1210	1057	943	895
9	1558	1220	1013	873	1522	1204	1006	870	1175	993	866	1147	981	862	1121	969	858	811
10	1464	1129	929	796	1431	1116	924	794	1090	913	791	1066	903	788	1044	893	784	740

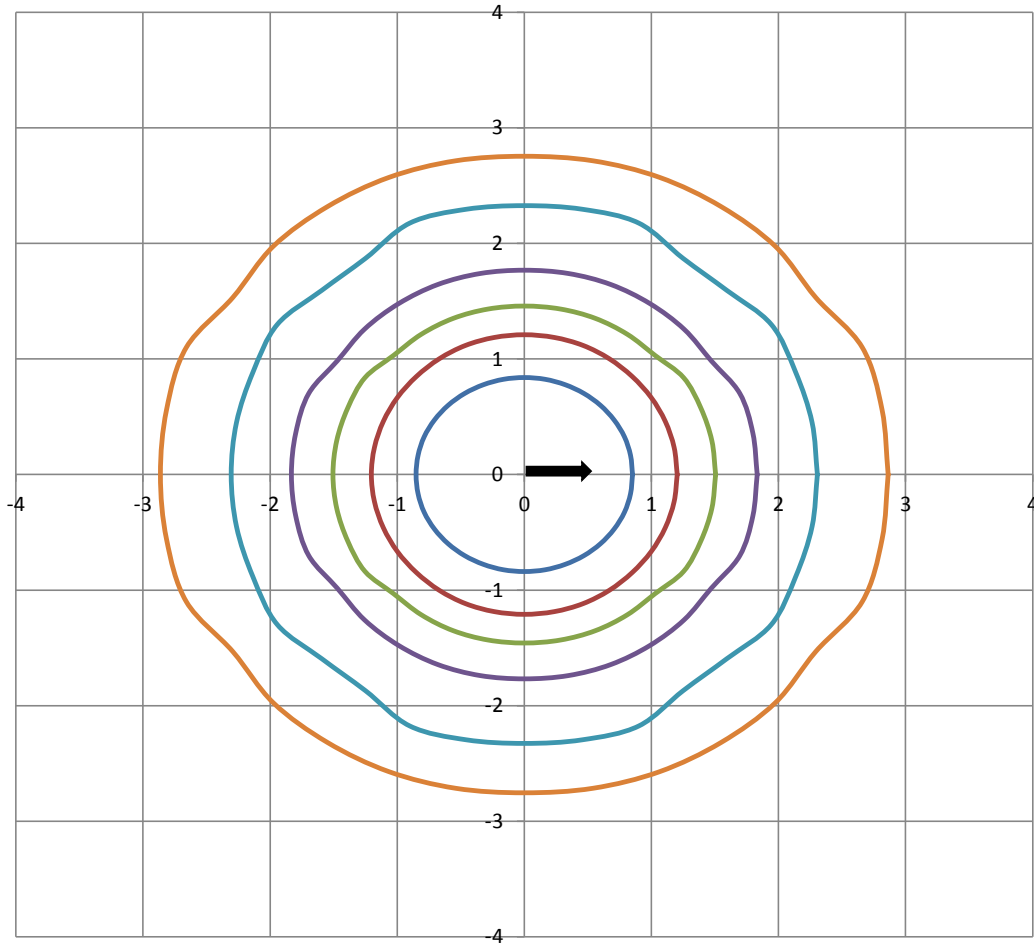
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1150 Candela
Central Cone Intensity:	1148 Candela
Beam Flux:	1703.4 Lumens
Beam Angle (0-180):	92.7 Degrees
Beam Angle (90-270):	92.7 Degrees
Field Angle (0-180):	158.2 Degrees
Field Angle (90-270):	154.7 Degrees





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

