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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
LT224SS1B40AC000,RT24SS1B40AC000
Order Number
11748594
Test Number
11748594.23

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:	2596 Lumens
Luminaire Efficacy:	113 lm/w
Maximum Candela:	1144 Candela

Test Conditions

Test Temperature:	24.9 °C
Voltage:	120.0 VAC
Current:	0.1925 A
Power:	22.98 W
Power Factor:	0.995
Frequency:	60 Hz
Current THD:	8.94 %

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



Distribution - Goniophotometer

Distribution Test Conditions

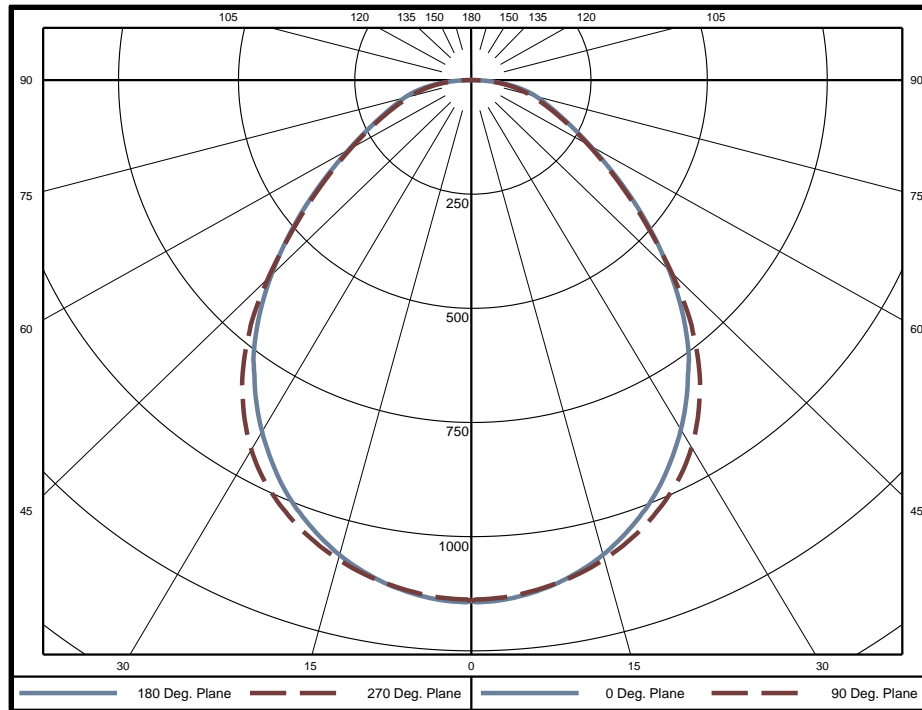
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.9 °C	120.0 VAC	0.1925 A	22.98 W	0.995	60 Hz	8.94 %

Summary of Results

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

Total Lumen Output: 2596 Lumens
Luminaire Efficacy: 113.0 lm/w
Maximum Candela: 1144 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	27.2	1.0%	60-65	123.0	4.7%	120-125	0	0.0%
5-10	80.4	3.1%	65-70	98.6	3.8%	125-130	0	0.0%
10-15	130.2	5.0%	70-75	79.2	3.1%	130-135	0	0.0%
15-20	174.5	6.7%	75-80	61.2	2.4%	135-140	0	0.0%
20-25	211.4	8.1%	80-85	40.3	1.6%	140-145	0	0.0%
25-30	238.7	9.2%	85-90	15.5	0.6%	145-150	0	0.0%
30-35	254.1	9.8%	90-95	0	0.0%	150-155	0	0.0%
35-40	256.6	9.9%	95-100	0	0.0%	155-160	0	0.0%
40-45	244.8	9.4%	100-105	0	0.0%	160-165	0	0.0%
45-50	219.7	8.5%	105-110	0	0.0%	165-170	0	0.0%
50-55	187.3	7.2%	110-115	0	0.0%	170-175	0	0.0%
55-60	153.4	5.9%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1373	52.9%
0-60	2178	83.9%
0-90	2596	100.0%
90-180	0	0.0%



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	1141	1141	1141	1141	1141	1141	1141	1141	1141	1141	1141	1141	1141	1141	1141	1141
5	1136	1134	1135	1132	1131	1132	1135	1134	1136	1134	1135	1132	1131	1132	1135	1134
10	1113	1112	1115	1114	1114	1114	1115	1112	1113	1112	1115	1114	1114	1114	1115	1112
15	1077	1077	1082	1085	1087	1085	1082	1077	1077	1077	1082	1085	1087	1085	1082	1077
20	1026	1027	1036	1045	1049	1045	1036	1027	1026	1027	1036	1045	1049	1045	1036	1027
25	964	965	977	992	999	992	977	965	964	965	977	992	999	992	977	965
30	888	890	903	922	932	922	903	890	888	890	903	922	932	922	903	890
35	802	803	816	834	844	834	816	803	802	803	816	834	844	834	816	803
40	707	705	716	729	735	729	716	705	707	705	716	729	735	729	716	705
45	598	599	608	607	604	607	608	599	598	599	608	607	604	607	608	599
50	486	490	494	479	478	479	494	490	486	490	494	479	478	479	494	490
55	383	385	380	372	374	372	380	385	383	385	380	372	374	372	380	385
60	296	294	288	283	289	283	288	294	296	294	288	283	289	283	288	294
65	230	228	213	215	223	215	213	228	230	228	213	215	223	215	213	228
70	182	181	162	166	172	166	162	181	182	181	162	166	172	166	162	181
75	145	140	127	127	131	127	127	140	145	140	127	127	131	127	127	140
80	106	100	93	89	93	89	93	100	106	100	93	89	93	89	93	100
85	56	55	50	48	49	48	50	55	56	55	50	48	49	48	50	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)

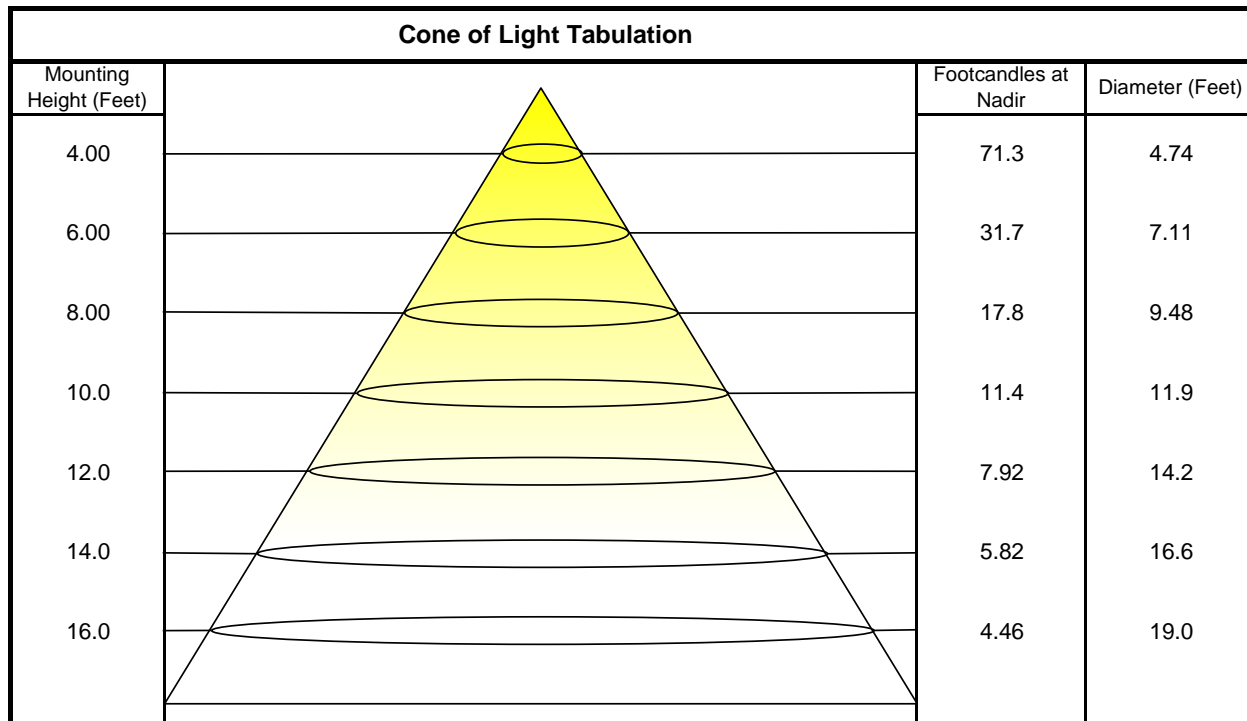
	0	45	90
0	4009	4009	4009
45	2971	3023	3003
55	2346	2331	2289
65	1913	1768	1858
75	1973	1717	1778
85	2241	2018	1991



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	3091	3091	3091	3091	3019	3019	3019	3019	2885	2885	2885	2762	2762	2762	2649	2649	2649	2596
1	2842	2725	2621	2527	2772	2667	2572	2486	2557	2479	2408	2456	2393	2334	2363	2313	2265	2212
2	2607	2407	2241	2102	2540	2358	2206	2077	2267	2139	2029	2183	2077	1983	2106	2018	1940	1885
3	2395	2139	1940	1783	2332	2098	1915	1767	2022	1865	1736	1952	1818	1706	1887	1774	1677	1623
4	2207	1915	1700	1537	2149	1881	1681	1526	1817	1643	1505	1758	1607	1485	1703	1573	1466	1412
5	2041	1726	1505	1343	1988	1697	1490	1335	1643	1461	1321	1593	1433	1307	1546	1406	1294	1241
6	1893	1565	1345	1187	1845	1541	1333	1182	1495	1310	1172	1453	1288	1162	1413	1266	1152	1101
7	1762	1428	1211	1059	1719	1407	1201	1055	1368	1183	1048	1331	1165	1041	1297	1148	1033	984
8	1645	1310	1098	953	1606	1292	1090	950	1258	1075	945	1227	1061	939	1197	1046	934	886
9	1541	1207	1002	864	1505	1192	996	862	1163	983	858	1135	971	853	1109	959	849	804
10	1448	1118	920	788	1416	1104	915	787	1079	904	783	1055	894	780	1033	884	777	733

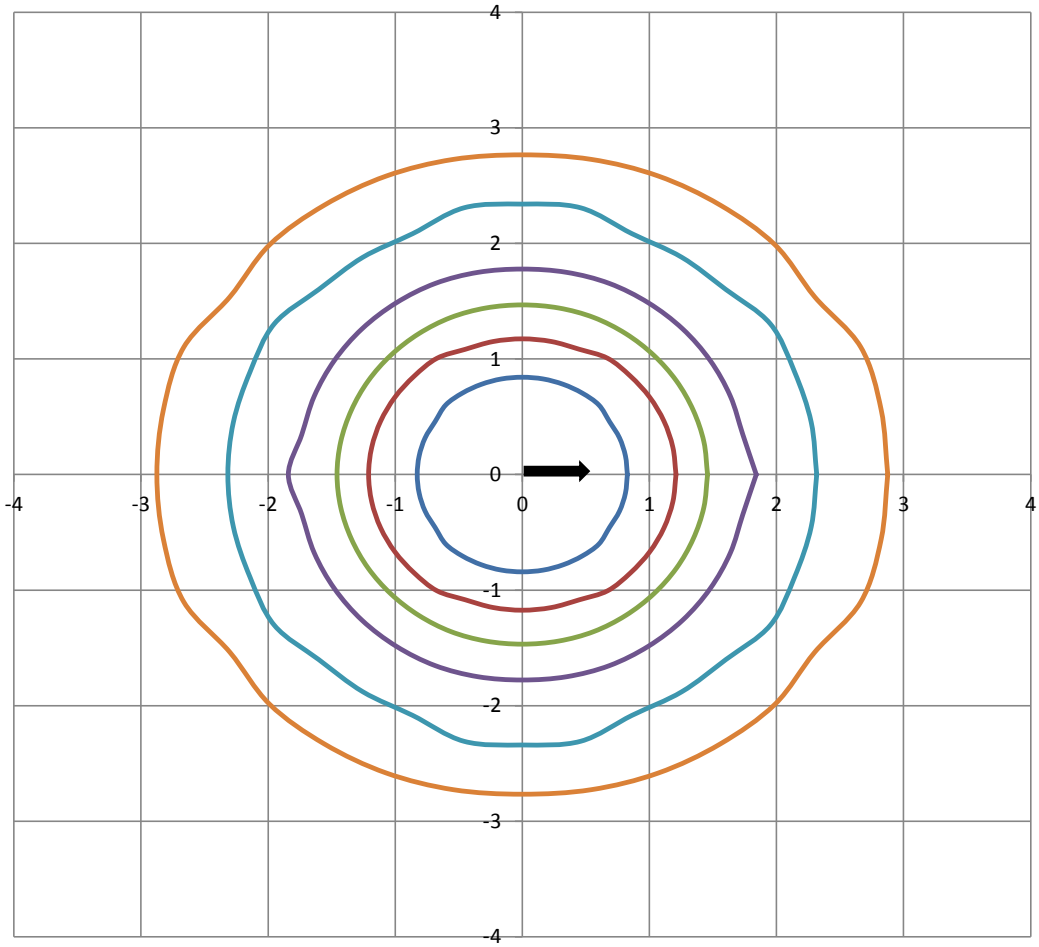
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1141 Candela
Central Cone Intensity:	1138 Candela
Beam Flux:	1683.5 Lumens
Beam Angle (0-180):	92.4 Degrees
Beam Angle (90-270):	92.5 Degrees
Field Angle (0-180):	158.1 Degrees
Field Angle (90-270):	154.5 Degrees





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

