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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  
**LT224SS1B40BC000,RT224SS1B40BC000**  
Order Number  
11748594  
Test Number  
11748594.20

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: 2927 Lumens  
Luminaire Efficacy: 109.7 lm/w  
Maximum Candela: 1291 Candela

**Test Conditions**

Test Temperature: 25.4 °C  
Voltage: 120.0 VAC  
Current: 0.2234 A  
Power: 26.68 W  
Power Factor: 0.996  
Frequency: 60 Hz  
Current THD: 8.25 %

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



## Distribution - Goniophotometer

### Distribution Test Conditions

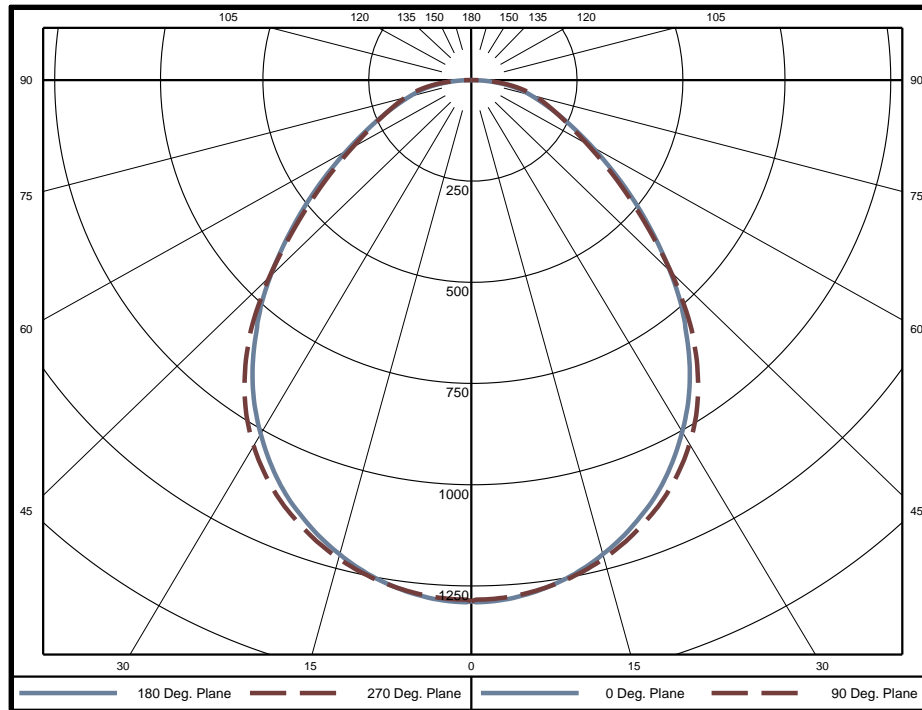
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.4 °C	120.0 VAC	0.2234 A	26.68 W	0.996	60 Hz	8.25 %

### Summary of Results

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

**Total Lumen Output:** 2927 Lumens  
**Luminaire Efficacy:** 109.7 lm/w  
**Maximum Candela:** 1291 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	30.7	1.0%	60-65	139.3	4.8%	120-125	0	0.0%
5-10	90.8	3.1%	65-70	111.5	3.8%	125-130	0	0.0%
10-15	147.0	5.0%	70-75	89.7	3.1%	130-135	0	0.0%
15-20	196.8	6.7%	75-80	69.3	2.4%	135-140	0	0.0%
20-25	238.1	8.1%	80-85	45.6	1.6%	140-145	0	0.0%
25-30	268.7	9.2%	85-90	17.7	0.6%	145-150	0	0.0%
30-35	286.1	9.8%	90-95	0	0.0%	150-155	0	0.0%
35-40	288.4	9.9%	95-100	0	0.0%	155-160	0	0.0%
40-45	275.3	9.4%	100-105	0	0.0%	160-165	0	0.0%
45-50	247.5	8.5%	105-110	0	0.0%	165-170	0	0.0%
50-55	211.5	7.2%	110-115	0	0.0%	170-175	0	0.0%
55-60	173.7	5.9%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1547	52.8%
0-60	2455	83.9%
0-90	2928	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	1288	1288	1288	1288	1288	1288	1288	1288	1288	1288	1288	1288	1288	1288	1288	1288
5	1282	1281	1282	1279	1278	1279	1282	1281	1282	1281	1282	1279	1278	1279	1282	1281
10	1256	1256	1260	1258	1258	1258	1260	1256	1256	1256	1260	1258	1258	1258	1260	1256
15	1214	1216	1221	1223	1224	1223	1221	1216	1214	1216	1221	1223	1224	1223	1221	1216
20	1160	1161	1167	1174	1177	1174	1167	1161	1160	1161	1167	1174	1177	1174	1167	1161
25	1093	1092	1099	1112	1118	1112	1099	1092	1093	1092	1099	1112	1118	1112	1099	1092
30	1009	1007	1016	1032	1042	1032	1016	1007	1009	1007	1016	1032	1042	1032	1016	1007
35	913	907	916	933	946	933	916	907	913	907	916	933	946	933	916	907
40	798	798	804	816	825	816	804	798	798	798	804	816	825	816	804	798
45	677	678	684	678	679	678	684	678	677	678	684	678	679	678	684	678
50	552	556	553	539	537	539	553	556	552	556	553	539	537	539	553	556
55	438	435	432	419	420	419	432	435	438	435	432	419	420	419	432	435
60	339	333	326	322	324	322	326	333	339	333	326	322	324	322	326	333
65	261	251	240	248	254	248	240	251	261	251	240	248	254	248	240	251
70	199	195	184	198	203	198	184	195	199	195	184	198	203	198	184	195
75	150	149	143	155	162	155	143	149	150	149	143	155	162	155	143	149
80	107	103	105	112	118	112	105	103	107	103	105	112	118	112	105	103
85	55	53	56	62	64	62	56	53	55	53	56	62	64	62	56	53
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/m<sup>2</sup>)**  
Horizontal Angle (Degrees)

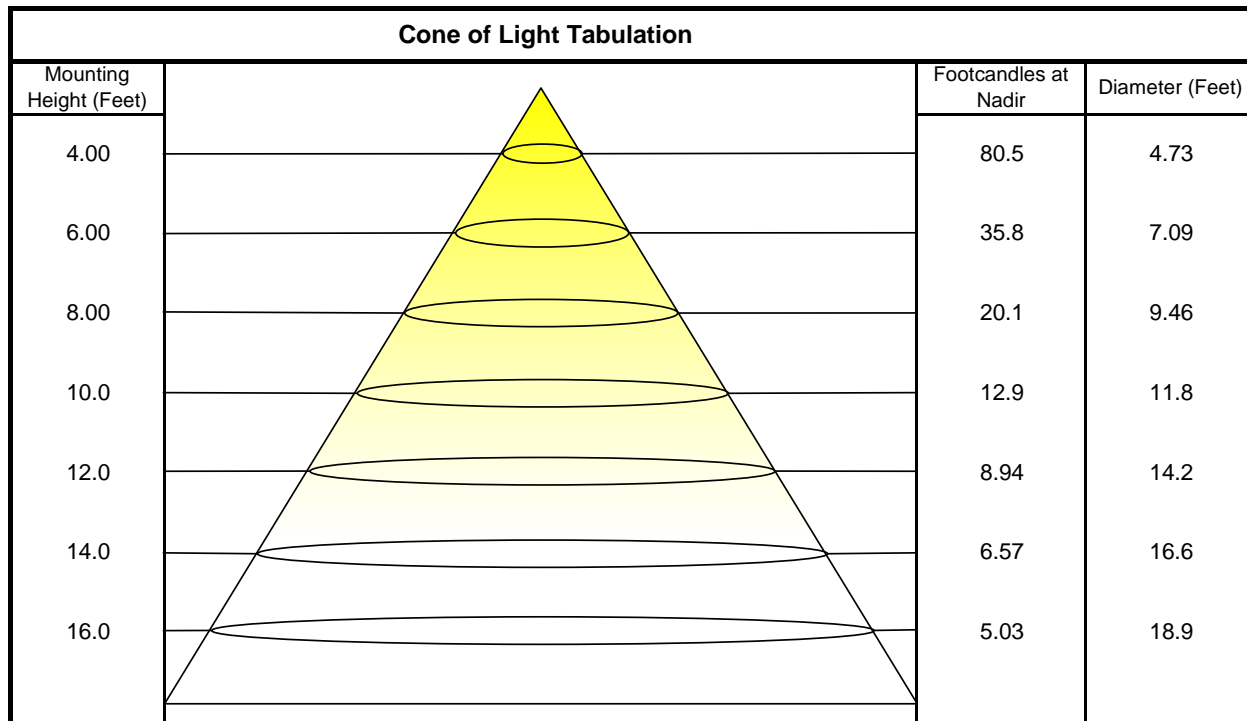
Vertical Angle (Degrees)	Horizontal Angle (Degrees)		
	0	45	90
0	4526	4526	4526
45	3367	3398	3377
55	2685	2648	2572
65	2170	1995	2113
75	2040	1939	2199
85	2222	2278	2572



### 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	3485	3485	3485	3485	3404	3404	3404	3404	3253	3253	3253	3114	3114	3114	2987	2987	2987	2927
1	3204	3073	2955	2849	3125	3006	2899	2802	2883	2795	2714	2769	2697	2631	2664	2607	2553	2493
2	2938	2713	2526	2369	2863	2658	2487	2341	2556	2411	2287	2461	2341	2235	2374	2274	2186	2125
3	2700	2411	2187	2009	2629	2365	2158	1991	2279	2102	1956	2200	2049	1923	2127	1999	1890	1829
4	2488	2158	1916	1731	2423	2120	1894	1720	2048	1852	1696	1981	1811	1674	1919	1773	1652	1591
5	2301	1945	1696	1513	2241	1913	1679	1505	1852	1646	1489	1796	1615	1473	1743	1585	1458	1398
6	2134	1764	1516	1337	2080	1737	1502	1331	1685	1476	1320	1637	1451	1309	1592	1427	1298	1240
7	1986	1609	1365	1193	1937	1586	1354	1189	1542	1333	1181	1501	1313	1173	1462	1293	1164	1109
8	1855	1476	1238	1074	1810	1456	1229	1071	1418	1212	1065	1383	1195	1058	1349	1179	1052	999
9	1737	1360	1130	974	1697	1343	1122	971	1310	1108	966	1280	1094	962	1250	1081	957	905
10	1632	1260	1037	888	1596	1245	1031	886	1216	1019	883	1189	1007	879	1164	996	875	826

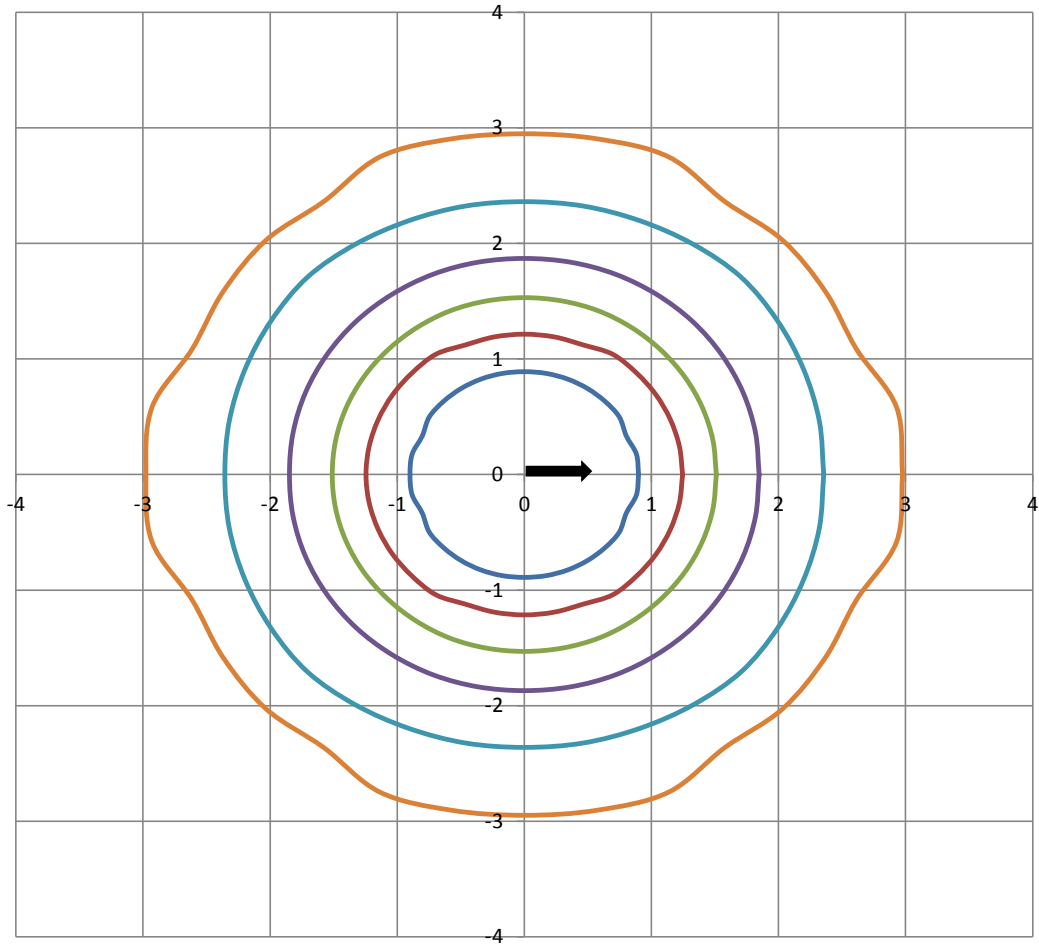
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1288 Candela
Central Cone Intensity:	1285 Candela
Beam Flux:	1891.1 Lumens
Beam Angle (0-180):	92.6 Degrees
Beam Angle (90-270):	92.3 Degrees
Field Angle (0-180):	155.2 Degrees
Field Angle (90-270):	157.7 Degrees





### ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

