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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  
**LT224SS1B40CC000,RT224SS1B40CC000**  
Order Number  
11748594  
Test Number  
11748594.18

Test Date

2017-05-04

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: 3383 Lumens  
Luminaire Efficacy: 110.3 lm/w  
Maximum Candela: 1491 Candela

**Test Conditions**

Test Temperature: 25.4 °C  
Voltage: 119.9 VAC  
Current: 0.2568 A  
Power: 30.68 W  
Power Factor: 0.996  
Frequency: 60 Hz  
Current THD: 7.70 %

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



## Distribution - Goniophotometer

### Distribution Test Conditions

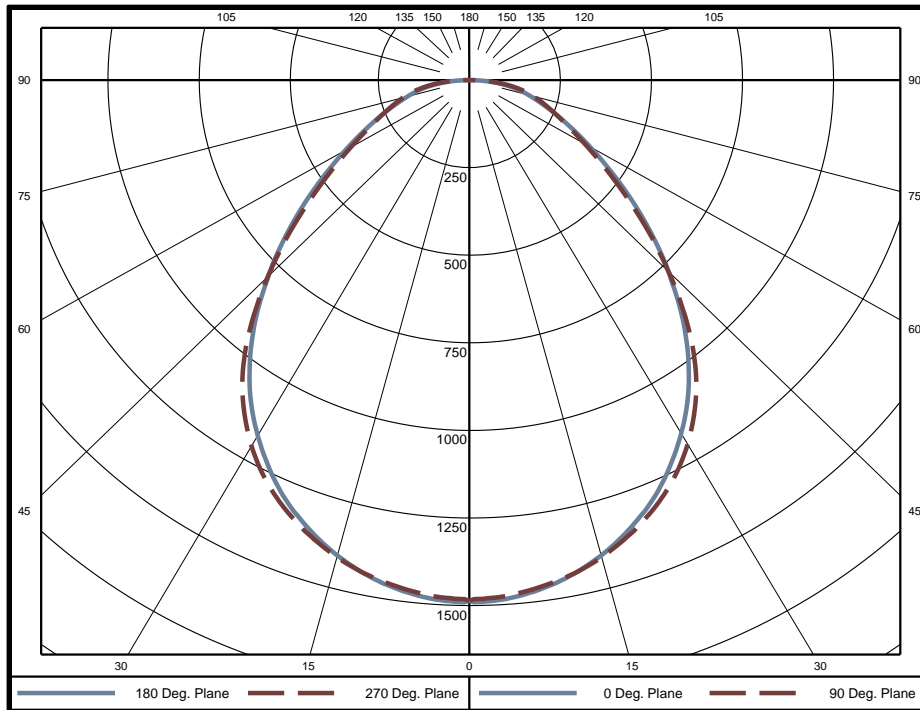
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.4 °C	119.9 VAC	0.2568 A	30.68 W	0.996	60 Hz	7.70 %

### Summary of Results

**Spacing Criteria**  
 0-180: 1.18  
 90-270: 1.18

**Total Lumen Output:** 3383 Lumens  
**Luminaire Efficacy:** 110.3 lm/w  
**Maximum Candela:** 1491 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	35.4	1.0%	60-65	160.6	4.7%	120-125	0	0.0%
5-10	104.6	3.1%	65-70	128.6	3.8%	125-130	0	0.0%
10-15	169.4	5.0%	70-75	103.8	3.1%	130-135	0	0.0%
15-20	227.1	6.7%	75-80	80.4	2.4%	135-140	0	0.0%
20-25	275.1	8.1%	80-85	52.9	1.6%	140-145	0	0.0%
25-30	310.8	9.2%	85-90	20.3	0.6%	145-150	0	0.0%
30-35	331.3	9.8%	90-95	0	0.0%	150-155	0	0.0%
35-40	333.8	9.9%	95-100	0	0.0%	155-160	0	0.0%
40-45	317.7	9.4%	100-105	0	0.0%	160-165	0	0.0%
45-50	286.5	8.5%	105-110	0	0.0%	165-170	0	0.0%
50-55	244.6	7.2%	110-115	0	0.0%	170-175	0	0.0%
55-60	200.5	5.9%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1788	52.8%
0-60	2837	83.9%
0-90	3383	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	1486	1486	1486	1486	1486	1486	1486	1486	1486	1486	1486	1486	1486	1486	1486	1486
5	1480	1477	1478	1474	1472	1474	1478	1477	1480	1477	1478	1474	1472	1474	1478	1477
10	1451	1448	1450	1449	1448	1449	1450	1448	1451	1448	1450	1449	1448	1449	1450	1448
15	1406	1403	1407	1410	1410	1410	1407	1403	1406	1403	1407	1410	1410	1410	1407	1403
20	1344	1341	1347	1354	1357	1354	1347	1341	1344	1341	1347	1354	1357	1354	1347	1341
25	1267	1263	1271	1284	1291	1284	1271	1263	1267	1263	1271	1284	1291	1284	1271	1263
30	1171	1167	1176	1193	1204	1193	1176	1167	1171	1167	1176	1193	1204	1193	1176	1167
35	1059	1054	1062	1079	1092	1079	1062	1054	1059	1054	1062	1079	1092	1079	1062	1054
40	928	923	928	939	949	939	928	923	928	923	928	939	949	939	928	923
45	784	783	789	784	783	784	789	783	784	783	789	784	783	784	789	783
50	640	644	642	624	622	624	642	644	640	644	642	624	622	624	642	644
55	505	504	497	484	481	484	497	504	505	504	497	484	481	484	497	504
60	391	383	378	370	373	370	378	383	391	383	378	370	373	370	378	383
65	301	290	279	287	293	287	279	290	301	290	279	287	293	287	279	290
70	230	225	211	228	235	228	211	225	230	225	211	228	235	228	211	225
75	174	173	166	180	188	180	166	173	174	173	166	180	188	180	166	173
80	124	119	121	130	137	130	121	119	124	119	121	130	137	130	121	119
85	64	62	65	73	74	73	65	62	64	62	65	73	74	73	65	62
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)

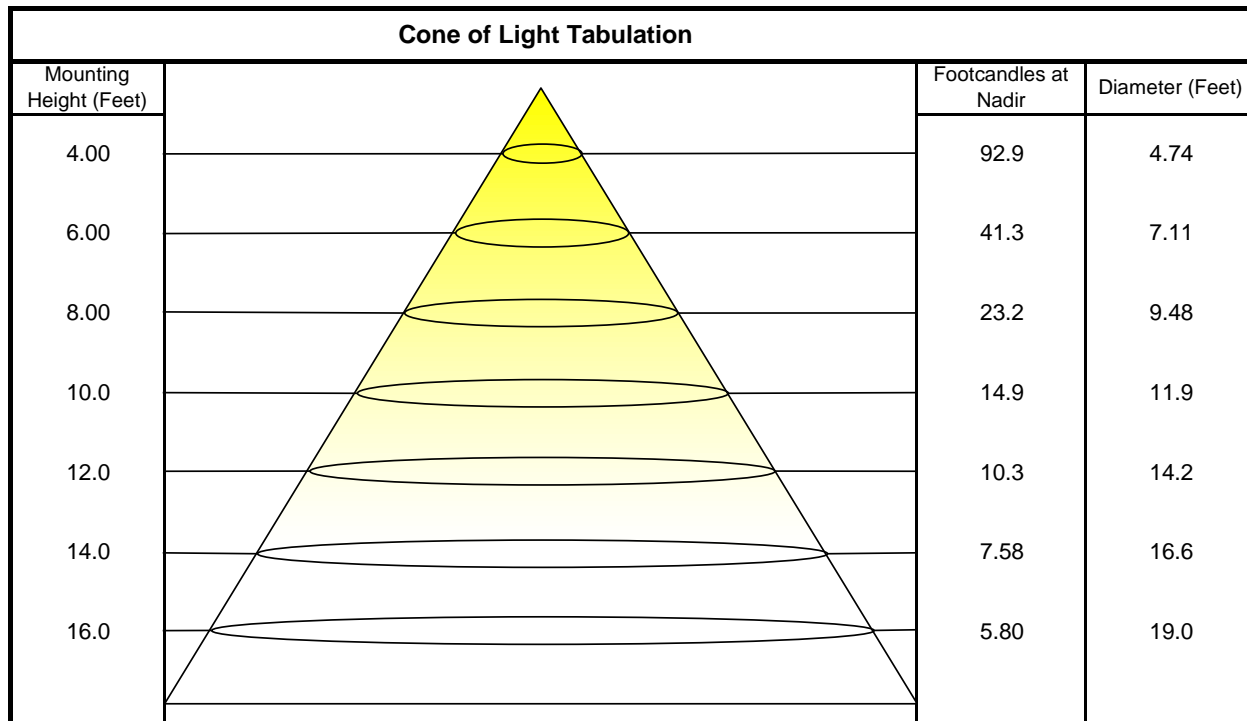
Vertical Angle (Degrees)	Horizontal Angle (Degrees)		
	0	45	90
0	5223	5223	5223
45	3895	3921	3891
55	3096	3047	2949
65	2503	2321	2433
75	2362	2252	2553
85	2569	2638	2983



### 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	4028	4028	4028	4028	3934	3934	3934	3934	3759	3759	3759	3599	3599	3599	3452	3452	3452	3383
1	3703	3551	3415	3292	3612	3475	3351	3239	3332	3230	3137	3200	3117	3041	3079	3013	2951	2881
2	3396	3135	2919	2738	3309	3072	2874	2706	2954	2787	2643	2844	2705	2583	2743	2629	2526	2456
3	3120	2786	2527	2321	3038	2733	2494	2301	2634	2429	2261	2543	2368	2222	2458	2310	2184	2114
4	2875	2494	2214	2001	2800	2450	2189	1987	2367	2140	1960	2289	2093	1934	2217	2049	1909	1839
5	2659	2248	1960	1748	2590	2211	1941	1739	2140	1903	1720	2075	1866	1702	2014	1831	1685	1616
6	2467	2039	1751	1545	2404	2007	1736	1538	1947	1706	1525	1892	1677	1512	1840	1649	1500	1433
7	2296	1860	1577	1379	2239	1833	1564	1374	1782	1540	1364	1734	1517	1355	1689	1494	1345	1281
8	2143	1705	1430	1241	2092	1682	1420	1237	1639	1400	1230	1598	1381	1223	1559	1362	1216	1154
9	2008	1572	1305	1125	1961	1552	1297	1122	1514	1280	1116	1478	1264	1111	1445	1249	1105	1046
10	1886	1455	1198	1026	1844	1438	1191	1024	1405	1177	1020	1374	1164	1015	1345	1151	1011	954

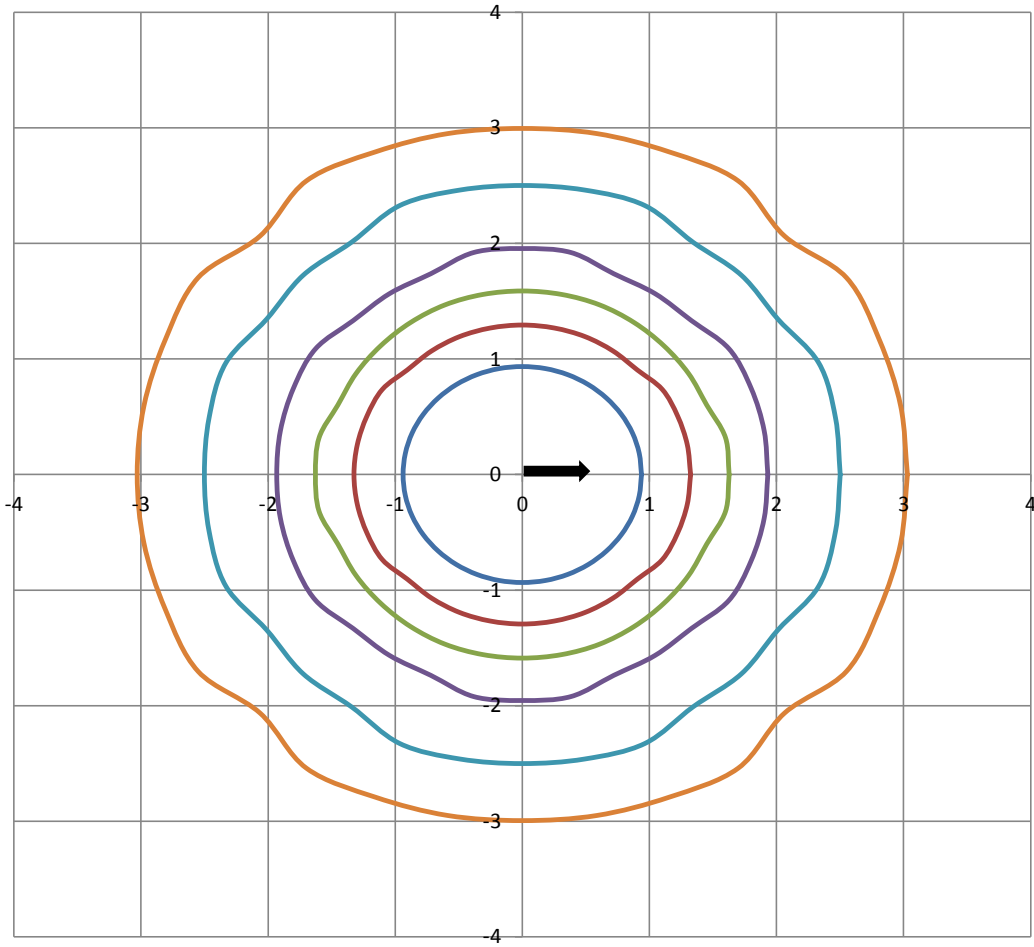
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1486 Candela
Central Cone Intensity:	1483 Candela
Beam Flux:	2189.8 Lumens
Beam Angle (0-180):	92.9 Degrees
Beam Angle (90-270):	92.4 Degrees
Field Angle (0-180):	155.3 Degrees
Field Angle (90-270):	157.9 Degrees





# ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

