



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  
**TechBrite LLC**  
1000 Kieley Pl  
Cincinnati, OH 45217  
United States

Catalog Number  
**LT224SS1B35DC000,RT224SS1B35DC000**  
Order Number  
11748594  
Test Number  
11748594.14

Test Date

2017-05-08

Prepared By

Dane Hernandez-Adams, Technician

Approved By

Tiffany Hamm, Project Handler

The results contained in this report pertain only to the tested sample.  
This report shall not be reproduced, except in full, without written approval of Underwriters Laboratories.  
This report must not be used by the client to claim product certification, approval, or endorsement by  
NVLAP, NIST, or any agency of the Federal Government.



**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:	3548 Lumens
Luminaire Efficacy:	107.4 lm/w
Maximum Candela:	1565 Candela

### Test Conditions

Test Temperature:	25.2 °C
Voltage:	120.0 VAC
Current:	0.2762 A
Power:	33.04 W
Power Factor:	0.997
Frequency:	60 Hz
Current THD:	7.35 %

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



## Distribution - Goniophotometer

### Distribution Test Conditions

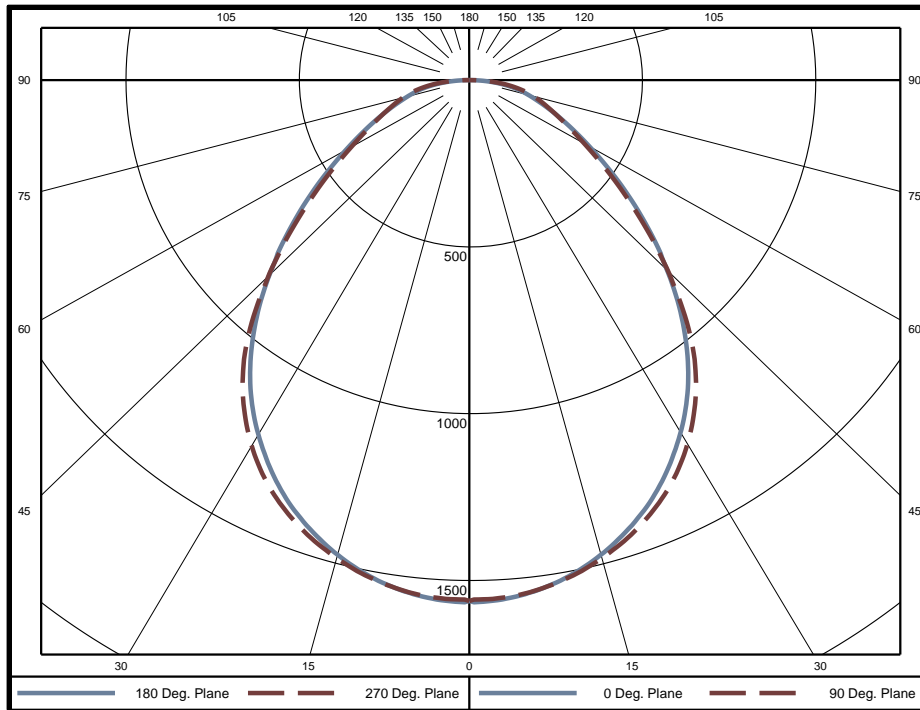
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.2 °C	120.0 VAC	0.2762 A	33.04 W	0.997	60 Hz	7.35 %

### Summary of Results

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

**Total Lumen Output:** 3548 Lumens  
**Luminaire Efficacy:** 107.4 lm/w  
**Maximum Candela:** 1565 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	37.2	1.0%	60-65	168.0	4.7%	120-125	0	0.0%
5-10	110.1	3.1%	65-70	134.9	3.8%	125-130	0	0.0%
10-15	178.3	5.0%	70-75	109.0	3.1%	130-135	0	0.0%
15-20	238.7	6.7%	75-80	84.4	2.4%	135-140	0	0.0%
20-25	289.0	8.1%	80-85	55.7	1.6%	140-145	0	0.0%
25-30	326.3	9.2%	85-90	21.2	0.6%	145-150	0	0.0%
30-35	347.5	9.8%	90-95	0	0.0%	150-155	0	0.0%
35-40	350.1	9.9%	95-100	0	0.0%	155-160	0	0.0%
40-45	332.7	9.4%	100-105	0	0.0%	160-165	0	0.0%
45-50	299.5	8.4%	105-110	0	0.0%	165-170	0	0.0%
50-55	255.8	7.2%	110-115	0	0.0%	170-175	0	0.0%
55-60	209.5	5.9%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1877	52.9%
0-60	2975	83.8%
0-90	3548	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	1561	1561	1561	1561	1561	1561	1561	1561	1561	1561	1561	1561	1561	1561	1561	1561
5	1554	1553	1555	1552	1551	1552	1555	1553	1554	1553	1555	1552	1551	1552	1555	1553
10	1523	1524	1528	1527	1525	1527	1528	1524	1523	1524	1528	1527	1525	1527	1528	1524
15	1474	1476	1481	1482	1484	1482	1481	1476	1474	1476	1481	1482	1484	1482	1481	1476
20	1408	1410	1415	1425	1428	1425	1415	1410	1408	1410	1415	1425	1428	1425	1415	1410
25	1326	1327	1335	1349	1358	1349	1335	1327	1326	1327	1335	1349	1358	1349	1335	1327
30	1225	1224	1236	1253	1263	1253	1236	1224	1225	1224	1236	1253	1263	1253	1236	1224
35	1109	1104	1115	1132	1146	1132	1115	1104	1109	1104	1115	1132	1146	1132	1115	1104
40	970	968	974	986	996	986	974	968	970	968	974	986	996	986	974	968
45	818	820	825	818	820	818	825	820	818	820	825	818	820	818	825	820
50	669	674	671	652	650	652	671	674	669	674	671	652	650	652	671	674
55	529	527	520	505	505	505	520	527	529	527	520	505	505	505	520	527
60	409	401	393	388	390	388	393	401	409	401	393	388	390	388	393	401
65	315	304	291	301	307	301	291	304	315	304	291	301	307	301	291	304
70	241	236	221	240	246	240	221	236	241	236	221	240	246	240	221	236
75	183	181	174	189	198	189	174	181	183	181	174	189	198	189	174	181
80	131	125	128	137	144	137	128	125	131	125	128	137	144	137	128	125
85	67	65	69	77	78	77	69	65	67	65	69	77	78	77	69	65
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)

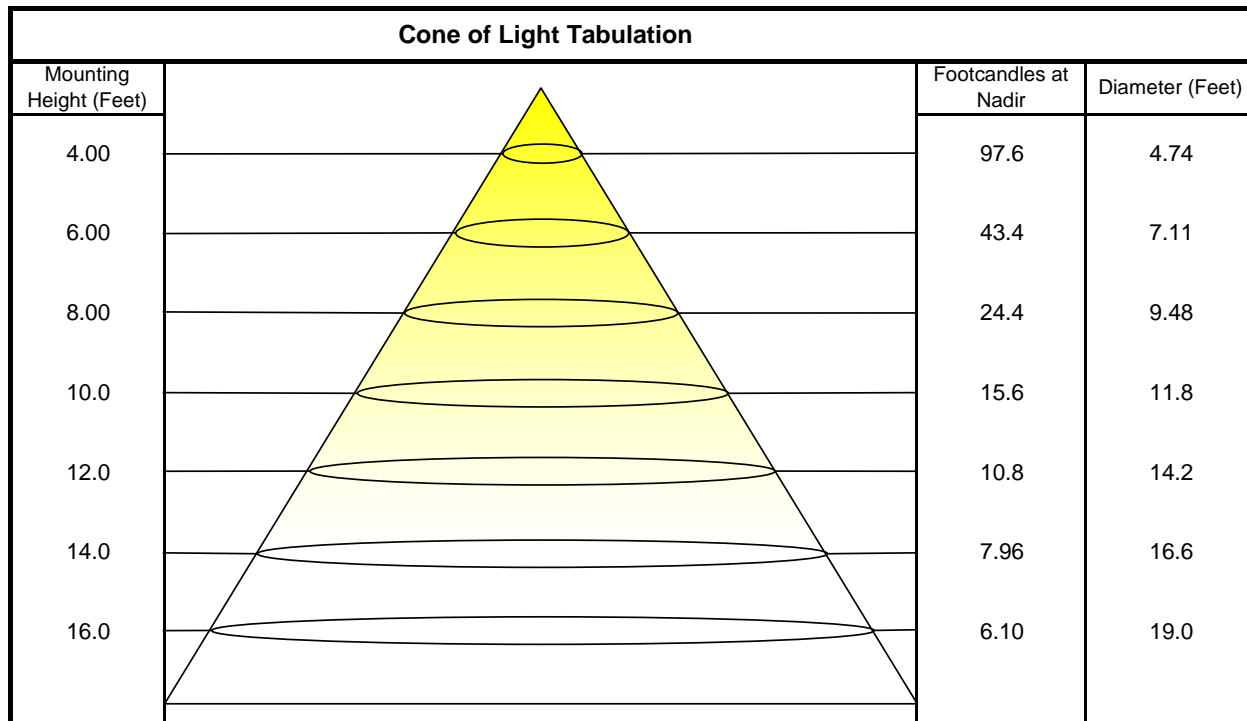
Vertical Angle (Degrees)	Horizontal Angle (Degrees)		
	0	45	90
0	5486	5486	5486
45	4065	4103	4075
55	3243	3188	3096
65	2622	2418	2550
75	2481	2366	2684
85	2701	2801	3164



### 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	4224	4224	4224	4224	4126	4126	4126	4126	3942	3942	3942	3775	3775	3775	3620	3620	3620	3548
1	3883	3724	3581	3453	3788	3644	3514	3396	3494	3387	3289	3356	3269	3189	3229	3159	3094	3022
2	3562	3288	3062	2872	3470	3222	3014	2838	3098	2923	2772	2983	2837	2709	2877	2757	2650	2576
3	3272	2922	2651	2435	3187	2867	2616	2413	2763	2548	2371	2667	2484	2331	2578	2423	2291	2217
4	3016	2616	2323	2099	2937	2570	2296	2085	2482	2245	2057	2402	2196	2029	2326	2149	2003	1929
5	2789	2358	2057	1835	2717	2319	2036	1825	2246	1996	1805	2177	1958	1786	2113	1922	1768	1696
6	2587	2139	1838	1622	2522	2106	1821	1615	2043	1790	1601	1985	1759	1587	1930	1730	1574	1504
7	2408	1951	1655	1447	2349	1923	1642	1442	1870	1616	1432	1820	1592	1422	1773	1568	1412	1345
8	2249	1790	1501	1303	2195	1766	1490	1299	1720	1470	1291	1677	1450	1284	1636	1430	1276	1211
9	2106	1650	1370	1181	2057	1629	1361	1178	1589	1344	1172	1552	1327	1166	1516	1311	1161	1098
10	1979	1528	1257	1078	1935	1510	1250	1075	1475	1236	1071	1442	1222	1066	1412	1209	1062	1002

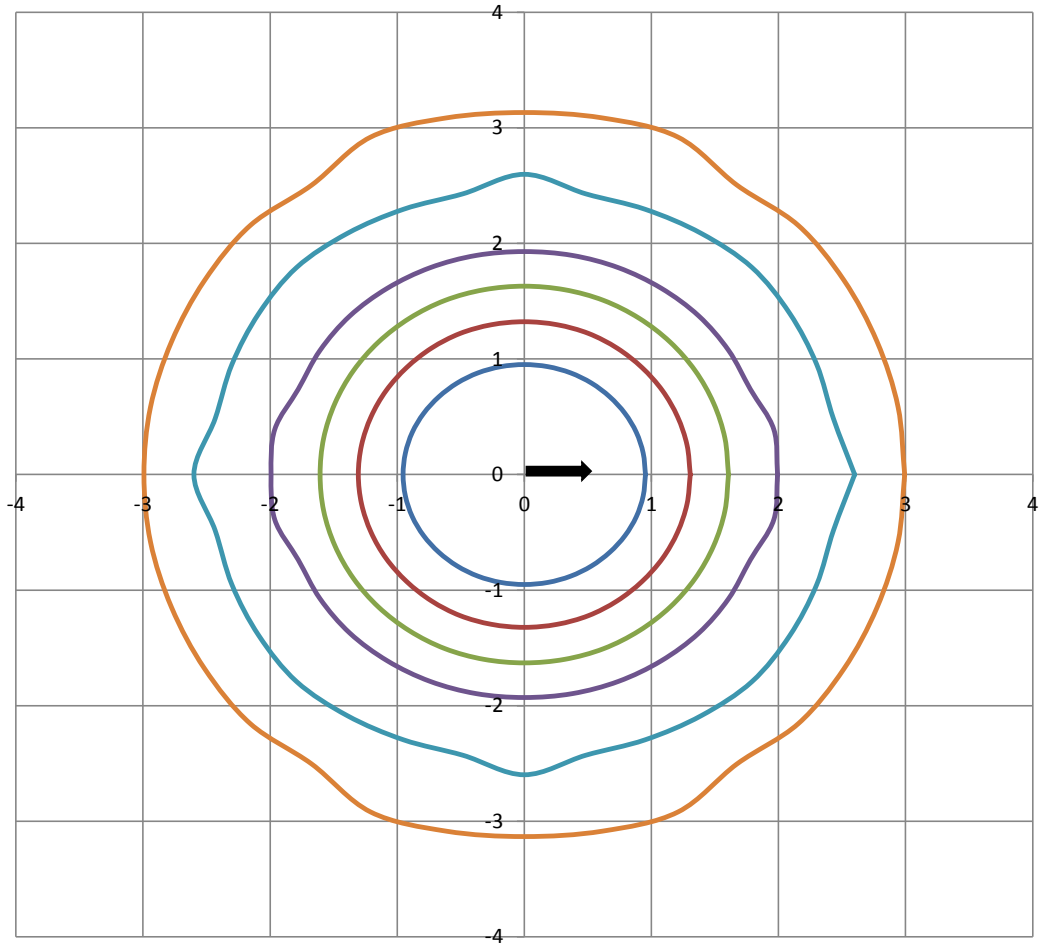
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1561 Candela
Central Cone Intensity:	1558 Candela
Beam Flux:	2289.9 Lumens
Beam Angle (0-180):	92.4 Degrees
Beam Angle (90-270):	92.2 Degrees
Field Angle (0-180):	155.3 Degrees
Field Angle (90-270):	157.9 Degrees





# ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

