



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  
**LT424SS1B50AC000,RT424SS1B50AC000**  
Order Number  
11748594  
Test Number  
11748594.12

Test Date

2017-05-10

Prepared By

Dane Hernandez-Adams, Technician

Approved By

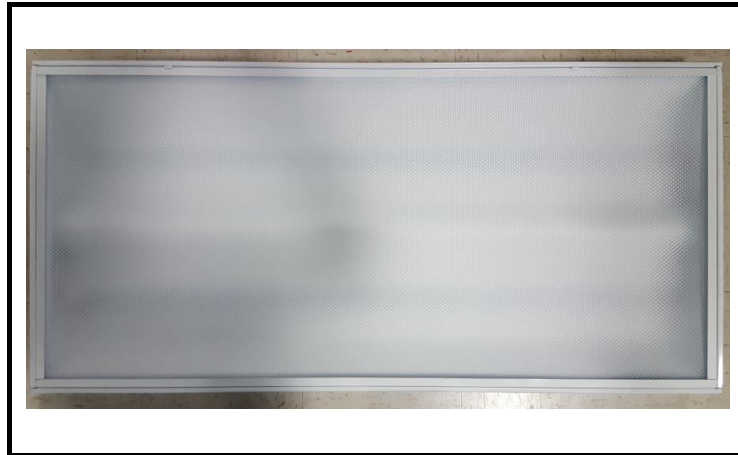
Tiffany Hamm, Project Handler

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**Luminaire Description:** White steel housing, prismatic lens enclosure. Tested in an A.L.P EL 2x4 housing.  
**Lamp:** 224 white LEDs  
**Mounting:** Surface – Ceiling  
**Ballast/Driver:** Everline D10CC55UNVTZ-C

### Luminaire



### Luminaire Characteristics

Luminous Length: 45.00 in.  
Luminous Width: 21.00 in.

### Summary of Results

Total Luminaire Output:	3906 Lumens
Luminaire Efficacy:	130.4 lm/w
Maximum Candela:	1610 Candela

### Test Conditions

Test Temperature:	24.8 °C
Voltage:	120.0 VAC
Current:	0.2505 A
Power:	29.95 W
Power Factor:	0.996
Frequency:	60 Hz
Current THD:	7.27 %

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



## Distribution - Goniophotometer

### Distribution Test Conditions

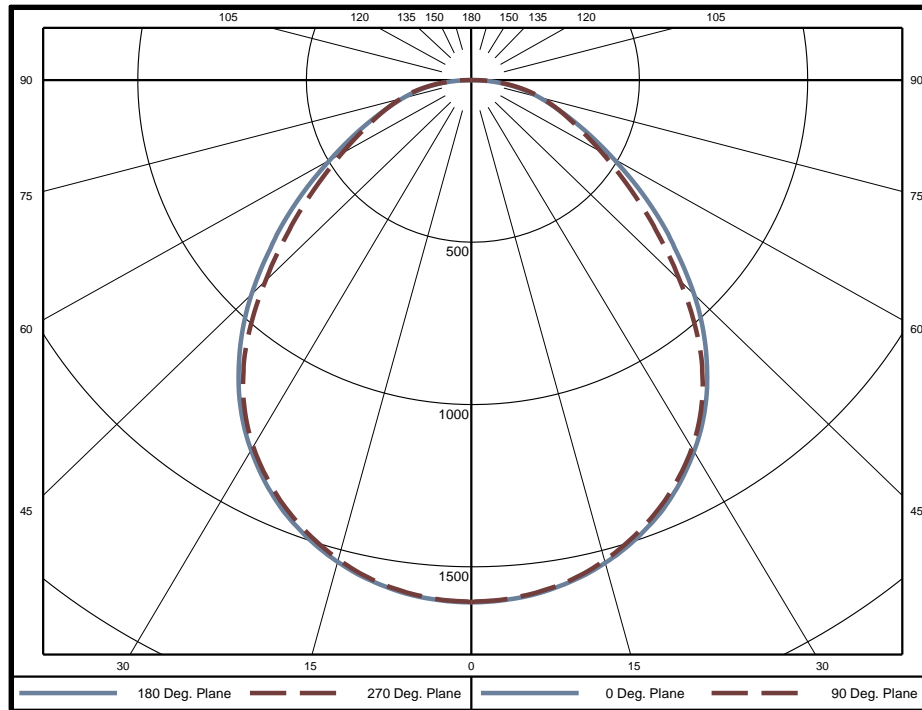
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.8 °C	120.0 VAC	0.2505 A	29.95 W	0.996	60 Hz	7.27 %

### Summary of Results

**Spacing Criteria**  
 0-180: 1.22  
 90-270: 1.22

**Total Lumen Output:** 3906 Lumens  
**Luminaire Efficacy:** 130.4 lm/w  
**Maximum Candela:** 1610 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	38.4	1.0%	60-65	201.3	5.2%	120-125	0	0.0%
5-10	113.7	2.9%	65-70	161.9	4.1%	125-130	0	0.0%
10-15	184.8	4.7%	70-75	128.6	3.3%	130-135	0	0.0%
15-20	248.8	6.4%	75-80	97.3	2.5%	135-140	0	0.0%
20-25	302.9	7.8%	80-85	62.1	1.6%	140-145	0	0.0%
25-30	344.7	8.8%	85-90	24.2	0.6%	145-150	0	0.0%
30-35	371.5	9.5%	90-95	0	0.0%	150-155	0	0.0%
35-40	379.6	9.7%	95-100	0	0.0%	155-160	0	0.0%
40-45	367.1	9.4%	100-105	0	0.0%	160-165	0	0.0%
45-50	336.7	8.6%	105-110	0	0.0%	165-170	0	0.0%
50-55	294.8	7.5%	110-115	0	0.0%	170-175	0	0.0%
55-60	247.1	6.3%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1984	50.8%
0-60	3230	82.7%
0-90	3906	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	1609	1609	1609	1609	1609	1609	1609	1609	1609	1609	1609	1609	1609	1609	1609	1609
5	1602	1602	1602	1600	1599	1600	1602	1602	1602	1602	1602	1600	1599	1600	1602	1602
10	1579	1579	1578	1576	1575	1576	1578	1579	1579	1579	1578	1576	1575	1576	1578	1579
15	1540	1540	1538	1535	1533	1535	1538	1540	1540	1540	1538	1535	1533	1535	1538	1540
20	1486	1484	1481	1478	1475	1478	1481	1484	1486	1484	1481	1478	1475	1478	1481	1484
25	1415	1411	1405	1404	1402	1404	1405	1411	1415	1411	1405	1404	1402	1404	1405	1411
30	1325	1319	1314	1313	1313	1313	1314	1319	1325	1319	1314	1313	1313	1313	1314	1319
35	1218	1209	1202	1199	1201	1199	1202	1209	1218	1209	1202	1199	1201	1199	1202	1209
40	1088	1079	1068	1057	1056	1057	1068	1079	1088	1079	1068	1057	1056	1057	1068	1079
45	942	933	918	893	883	893	918	933	942	933	918	893	883	893	918	933
50	784	781	760	726	718	726	760	781	784	781	760	726	718	726	760	781
55	635	628	604	580	573	580	604	628	635	628	604	580	573	580	604	628
60	494	486	467	455	452	455	467	486	494	486	467	455	452	455	467	486
65	380	370	357	357	357	357	357	370	380	370	357	357	357	357	357	370
70	286	282	272	282	284	282	272	282	286	282	272	282	284	282	272	282
75	213	213	209	217	221	217	209	213	213	213	209	217	221	217	209	213
80	147	145	147	153	156	153	147	145	147	145	147	153	156	153	147	145
85	76	75	77	81	82	81	77	75	76	75	77	81	82	81	77	75
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)

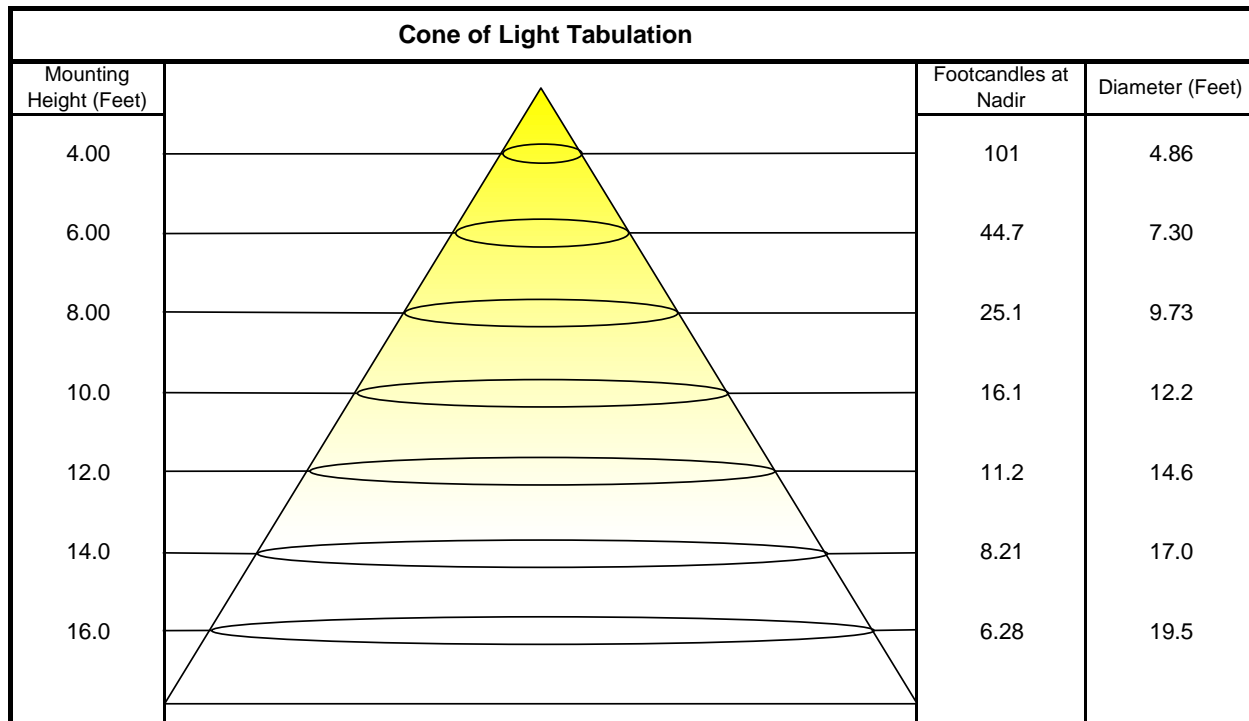
Vertical Angle (Degrees)	Horizontal Angle (Degrees)		
	0	45	90
0	2639	2639	2639
45	2184	2129	2049
55	1816	1727	1640
65	1473	1384	1386
75	1352	1325	1399
85	1432	1456	1546



### 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	4649	4649	4649	4649	4541	4541	4541	4541	4339	4339	4339	4155	4155	4155	3985	3985	3985	3906
1	4266	4087	3927	3783	4161	3999	3853	3721	3833	3713	3603	3681	3584	3493	3541	3463	3390	3309
2	3904	3597	3343	3129	3803	3524	3290	3092	3386	3190	3020	3260	3096	2952	3142	3007	2887	2804
3	3580	3187	2883	2640	3485	3126	2844	2617	3011	2769	2571	2904	2699	2526	2806	2632	2483	2401
4	3293	2845	2517	2266	3206	2794	2487	2250	2697	2431	2220	2608	2377	2190	2524	2325	2161	2079
5	3041	2559	2222	1973	2961	2516	2199	1962	2434	2155	1941	2358	2113	1920	2287	2072	1900	1820
6	2818	2316	1979	1738	2745	2280	1961	1730	2210	1927	1715	2145	1893	1700	2085	1861	1686	1608
7	2620	2109	1778	1547	2553	2078	1764	1541	2019	1736	1530	1963	1709	1519	1911	1683	1508	1433
8	2444	1932	1610	1388	2384	1905	1598	1384	1854	1575	1376	1806	1553	1368	1761	1531	1360	1287
9	2287	1778	1466	1256	2233	1755	1457	1253	1711	1438	1246	1670	1420	1240	1630	1402	1234	1164
10	2147	1645	1344	1144	2098	1625	1336	1141	1587	1320	1136	1550	1305	1131	1516	1290	1127	1060

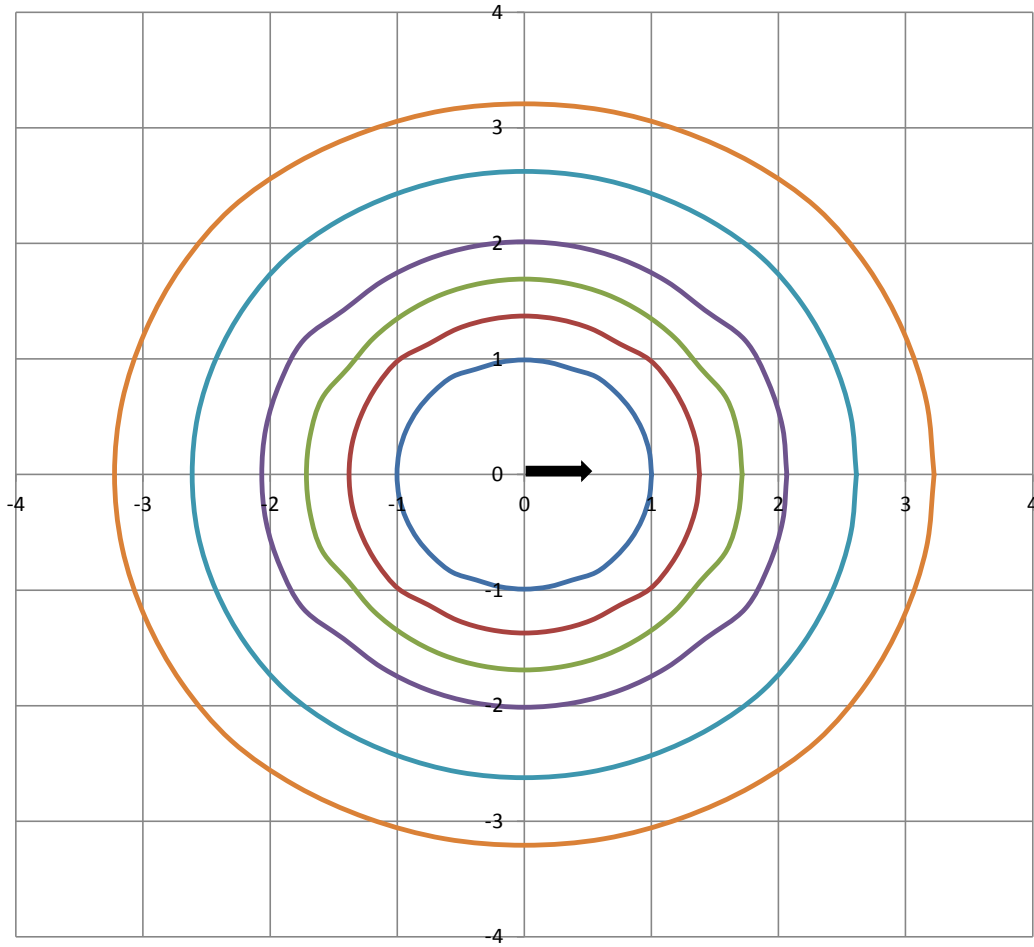
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1609 Candela
Central Cone Intensity:	1606 Candela
Beam Flux:	2589.6 Lumens
Beam Angle (0-180):	98.6 Degrees
Beam Angle (90-270):	94.7 Degrees
Field Angle (0-180):	158.0 Degrees
Field Angle (90-270):	159.3 Degrees





# ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

