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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
LT424SS1B40CC000,RT424SS1B40CC000
Order Number
11748594
Test Number
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2017-05-08

Prepared By

Dane Hernandez-Adams, Technician

Approved By

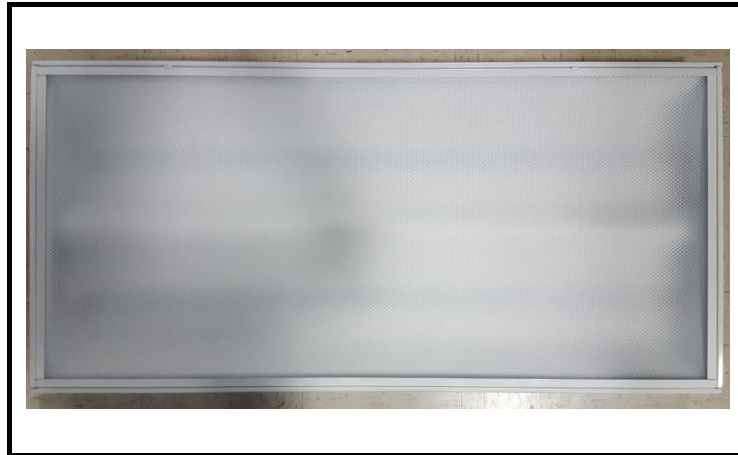
Tiffany Hamm, Project Handler

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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: 4983 Lumens
Luminaire Efficacy: 118.5 lm/w
Maximum Candela: 2065 Candela

Test Conditions

Test Temperature: 25.7 °C
Voltage: 120.0 VAC
Current: 0.3514 A
Power: 42.06 W
Power Factor: 0.998
Frequency: 60 Hz
Current THD: 5.93 %

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



Distribution - Goniophotometer

Distribution Test Conditions

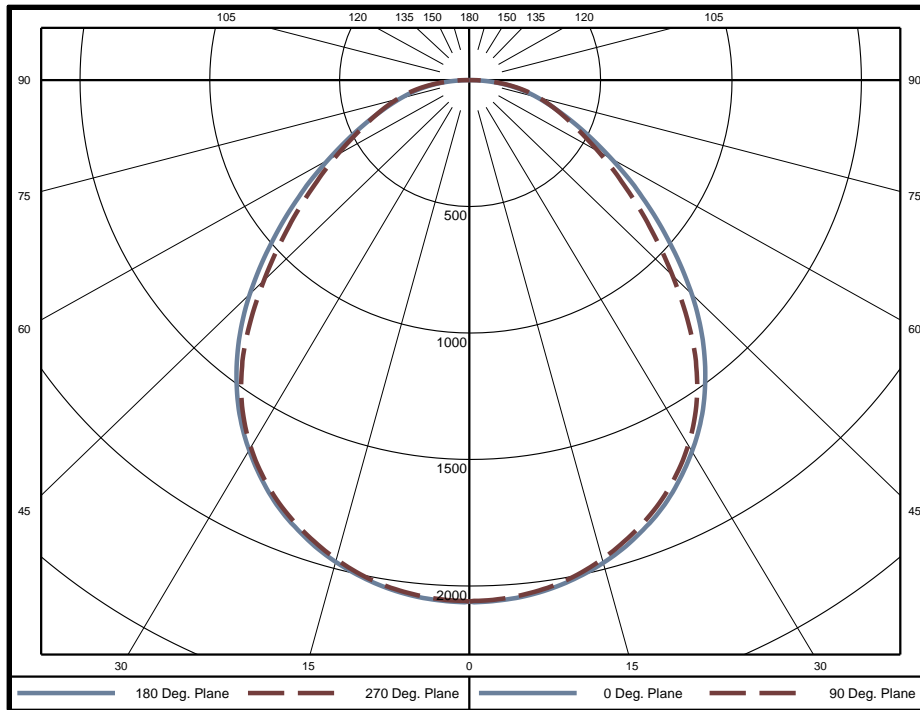
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.7 °C	120.0 VAC	0.3514 A	42.06 W	0.998	60 Hz	5.93 %

Summary of Results

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

Total Lumen Output: 4983 Lumens
Luminaire Efficacy: 118.5 lm/w
Maximum Candela: 2065 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	49.2	1.0%	60-65	257.6	5.2%	120-125	0	0.0%
5-10	145.7	2.9%	65-70	207.6	4.2%	125-130	0	0.0%
10-15	236.8	4.8%	70-75	164.8	3.3%	130-135	0	0.0%
15-20	318.7	6.4%	75-80	124.6	2.5%	135-140	0	0.0%
20-25	388.0	7.8%	80-85	79.7	1.6%	140-145	0	0.0%
25-30	441.2	8.9%	85-90	30.3	0.6%	145-150	0	0.0%
30-35	474.6	9.5%	90-95	0	0.0%	150-155	0	0.0%
35-40	483.6	9.7%	95-100	0	0.0%	155-160	0	0.0%
40-45	466.4	9.4%	100-105	0	0.0%	160-165	0	0.0%
45-50	426.5	8.6%	105-110	0	0.0%	165-170	0	0.0%
50-55	373.2	7.5%	110-115	0	0.0%	170-175	0	0.0%
55-60	314.8	6.3%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	2538	50.9%
0-60	4119	82.7%
0-90	4983	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	2062	2062	2062	2062	2062	2062	2062	2062	2062	2062	2062	2062	2062	2062	2062	2062
5	2056	2053	2053	2049	2049	2049	2053	2053	2056	2053	2053	2049	2049	2049	2053	2053
10	2026	2023	2022	2019	2018	2019	2022	2023	2026	2023	2022	2019	2018	2019	2022	2023
15	1977	1973	1971	1966	1962	1966	1971	1973	1977	1973	1971	1966	1962	1966	1971	1973
20	1907	1902	1896	1890	1887	1890	1896	1902	1907	1902	1896	1890	1887	1890	1896	1902
25	1816	1809	1800	1795	1793	1795	1800	1809	1816	1809	1800	1795	1793	1795	1800	1809
30	1700	1692	1681	1675	1673	1675	1681	1692	1700	1692	1681	1675	1673	1675	1681	1692
35	1563	1549	1535	1523	1520	1523	1535	1549	1563	1549	1535	1523	1520	1523	1535	1549
40	1397	1382	1362	1335	1325	1335	1362	1382	1397	1382	1362	1335	1325	1335	1362	1382
45	1207	1195	1167	1122	1105	1122	1167	1195	1207	1195	1167	1122	1105	1122	1167	1195
50	1001	998	959	913	901	913	959	998	1001	998	959	913	901	913	959	998
55	807	801	766	733	722	733	766	801	807	801	766	733	722	733	766	801
60	634	622	597	579	576	579	597	622	634	622	597	579	576	579	597	622
65	487	476	458	457	456	457	458	476	487	476	458	457	456	457	458	476
70	368	362	351	361	363	361	351	362	368	362	351	361	363	361	351	362
75	273	272	267	278	282	278	267	272	273	272	267	278	282	278	267	272
80	189	187	190	195	199	195	190	187	189	187	190	195	199	195	190	187
85	97	96	99	105	104	105	99	96	97	96	99	105	104	105	99	96
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)

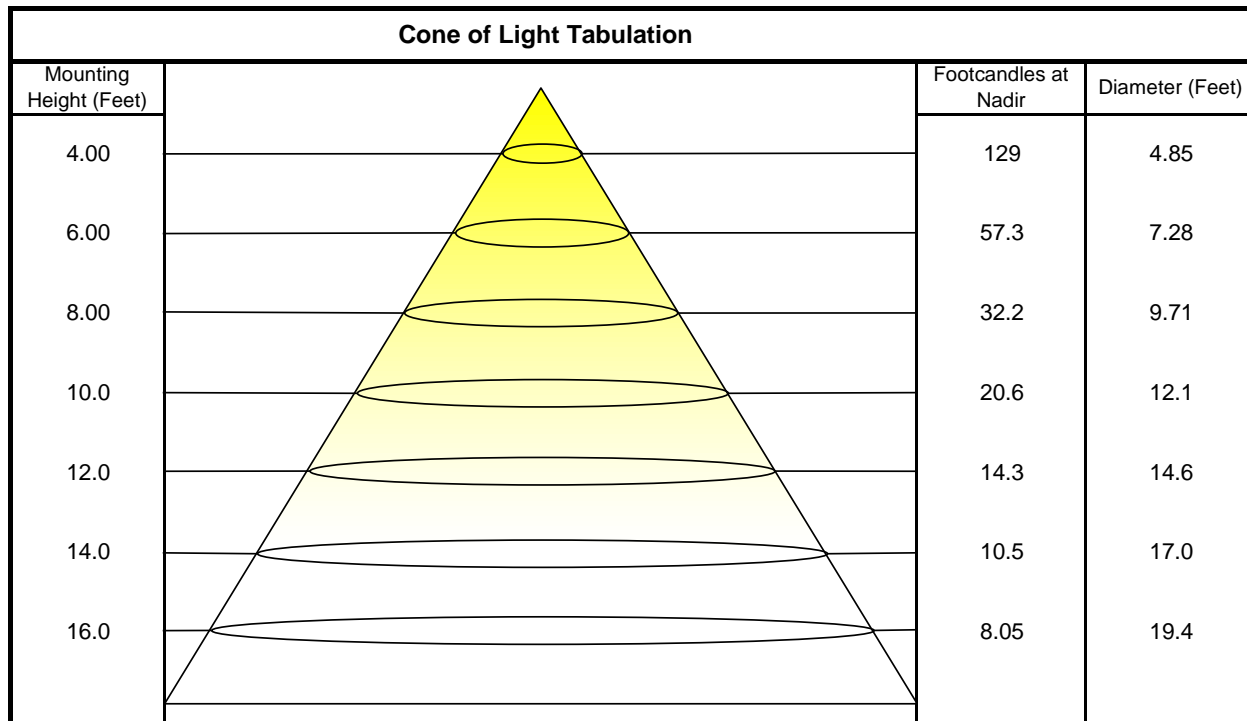
Vertical Angle (Degrees)	Horizontal Angle (Degrees)		
	0	45	90
0	3382	3382	3382
45	2799	2706	2563
55	2309	2189	2066
65	1889	1777	1770
75	1732	1691	1787
85	1828	1870	1960



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	5933	5933	5933	5933	5795	5795	5795	5795	5537	5537	5537	5301	5301	5301	5085	5085	5085	4983
1	5444	5215	5011	4826	5309	5102	4916	4748	4891	4738	4598	4697	4573	4457	4519	4419	4325	4222
2	4982	4590	4266	3993	4853	4496	4199	3946	4321	4071	3854	4159	3950	3767	4010	3837	3683	3578
3	4568	4067	3679	3370	4447	3989	3629	3340	3842	3534	3281	3706	3444	3224	3580	3359	3170	3064
4	4203	3631	3213	2893	4091	3566	3175	2873	3443	3103	2834	3328	3034	2796	3222	2968	2759	2654
5	3881	3266	2836	2519	3779	3211	2807	2505	3107	2751	2478	3010	2697	2452	2919	2646	2426	2324
6	3597	2957	2528	2220	3503	2910	2505	2210	2822	2460	2191	2739	2417	2172	2662	2376	2153	2054
7	3344	2693	2271	1976	3259	2653	2253	1969	2578	2217	1954	2507	2183	1941	2440	2149	1927	1831
8	3120	2467	2056	1774	3043	2433	2041	1769	2368	2012	1758	2307	1984	1748	2249	1956	1737	1645
9	2920	2271	1874	1605	2851	2242	1861	1601	2186	1837	1593	2133	1814	1585	2083	1791	1577	1488
10	2742	2101	1717	1462	2679	2075	1707	1459	2027	1687	1453	1981	1667	1446	1937	1648	1440	1355

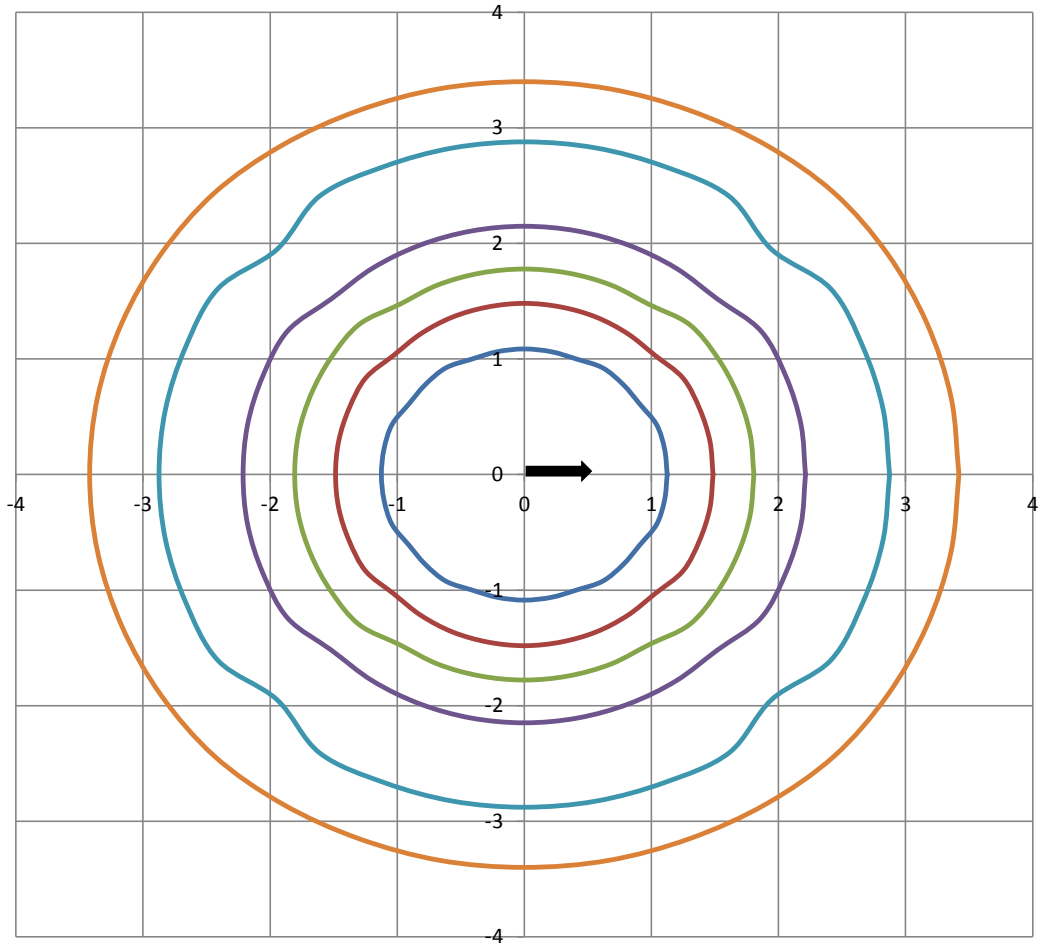
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	2062 Candela
Central Cone Intensity:	2058 Candela
Beam Flux:	3279.5 Lumens
Beam Angle (0-180):	98.5 Degrees
Beam Angle (90-270):	93.5 Degrees
Field Angle (0-180):	158.0 Degrees
Field Angle (90-270):	159.2 Degrees





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

