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Photometric Test Report

Relevant Standards

IES LM-79-2008, ANSI C82.77-2002, CIE 13.3-1995
CIE 15-2004, ANSI C78.377-2015, IES TM-30-2015

Prepared For

TechBrite LLC

1000 Kieley Pl
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United States

Catalog Number

LT424SS1B50DC000,RT424SS1B50DC000

Order Number

11748594

Test Number

11748594.04

Test Date

2017-05-10 - 2017-05-11

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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Table of Contents

Summary of Results	Page 3
Integrating Sphere Results	Page 4
Distribution Results	
Conditions / Summary of Results / Polar Plot / Zonal Lumens	Page 5
Candela Tabulation / Average Luminance	Page 6
Coefficients of Utilization / Cone of Light	Page 7
ISOFootcandle Plot	Page 8

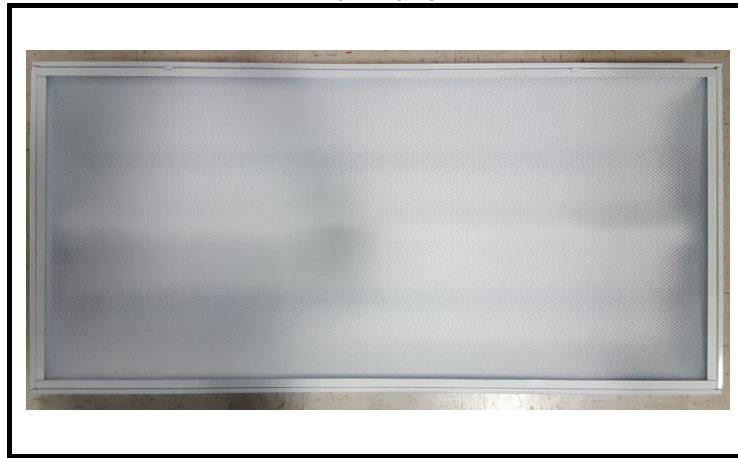
Laboratory results may not be representative of field performance
Ballast factors have not been applied

Testing was performed in a 3-meter integrating sphere using the 4π geometry method.
Absorption correction was employed for Sphere measurement



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

Integrating Sphere

Luminous Flux: 6331 Lumens
Efficacy: 131.0 lm/w
CCT: 4894 K
CRI (Ra): 84.4

Distribution

Total Luminaire Output: 6090 Lumens
Luminaire Efficacy: 125.6 lm/w
Maximum Candela: 2514 Candela

Electrical Data at 120 VAC

Test Temperature: 25.7 °C
Voltage: 120.1 VAC
Current: 0.4052 A
Power: 48.33 W
Power Factor: 0.994
Frequency: 60 Hz
Current THD: 5.33 %



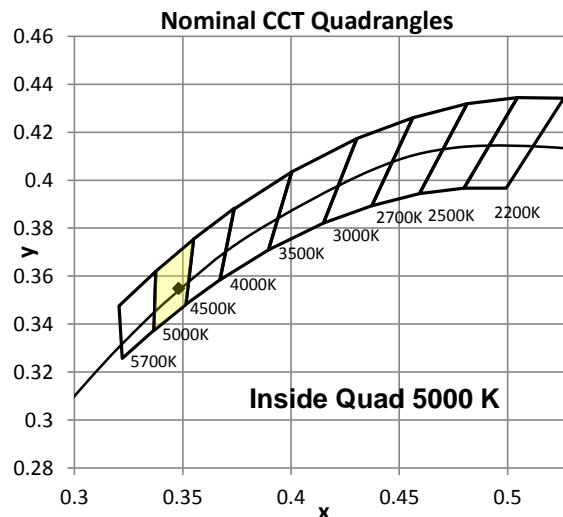
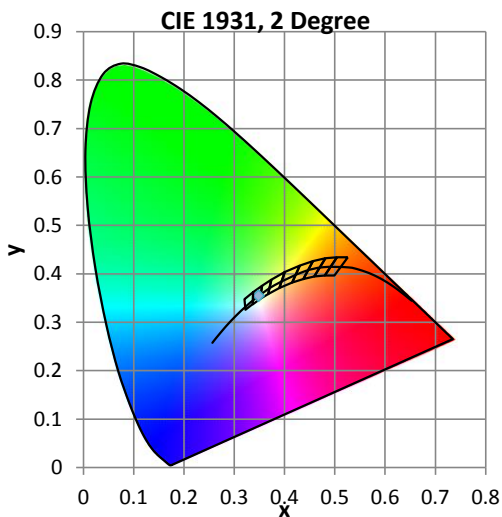
Color Quality - Integrating Sphere

Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.7 °C	120.1 VAC	0.4052 A	48.33 W	0.994	60 Hz	5.33 %

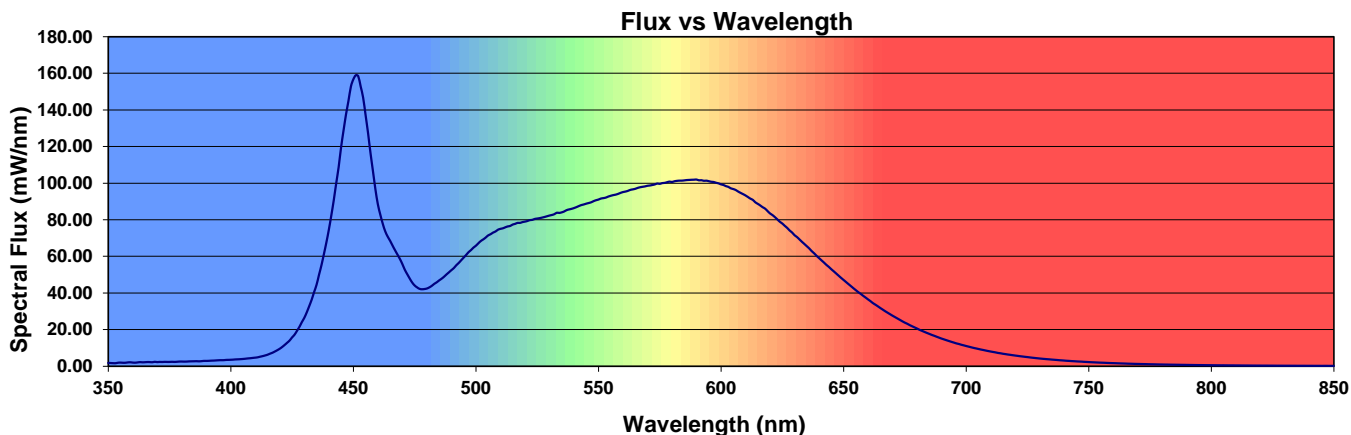
Summary of Results

Total Output:	6331 Lumens	Chromaticity (x):	0.3481
Efficacy:	131.0 lm/w	Chromaticity (y):	0.3548
CCT:	4894 K	Chromaticity (u'):	0.2122
CRI (Ra):	84.4	Chromaticity (v'):	0.4867
CRI (R9):	11.7	TM-30 Rf:	83.1
Peak Wavelength:	451.1 nm	TM-30 Rg:	95.6
Dominant Wavelength:	573.6 nm	Duv:	0.0003
S/P Ratio:	1.955		



Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
84.4	82.7	90.1	94.7	83.4	83.2	85.5	87.4	68.0	11.7	76.3	82.8	63.2	84.8	97.4





Distribution - Goniophotometer

Distribution Test Conditions

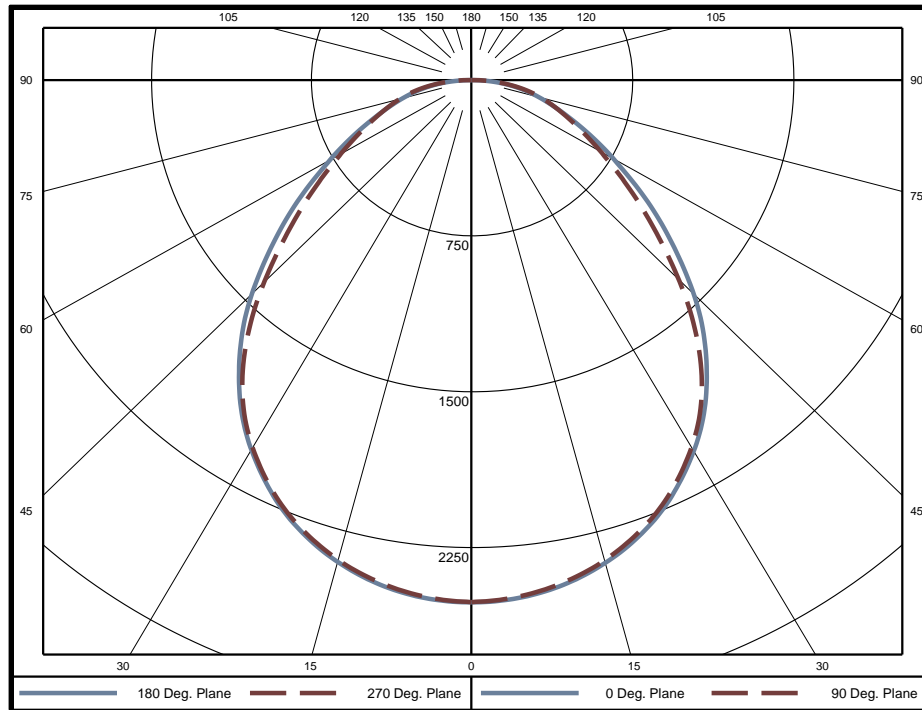
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.2 °C	120.0 VAC	0.4047 A	48.47 W	0.998	60 Hz	5.18 %

Summary of Results

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

Total Lumen Output: 6090 Lumens
Luminaire Efficacy: 125.6 lm/w
Maximum Candela: 2514 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	59.9	1.0%	60-65	314.6	5.2%	120-125	0	0.0%
5-10	177.5	2.9%	65-70	253.4	4.2%	125-130	0	0.0%
10-15	288.3	4.7%	70-75	201.2	3.3%	130-135	0	0.0%
15-20	388.3	6.4%	75-80	152.1	2.5%	135-140	0	0.0%
20-25	473.1	7.8%	80-85	97.2	1.6%	140-145	0	0.0%
25-30	538.3	8.8%	85-90	37.3	0.6%	145-150	0	0.0%
30-35	579.6	9.5%	90-95	0	0.0%	150-155	0	0.0%
35-40	591.8	9.7%	95-100	0	0.0%	155-160	0	0.0%
40-45	572.3	9.4%	100-105	0	0.0%	160-165	0	0.0%
45-50	523.8	8.6%	105-110	0	0.0%	165-170	0	0.0%
50-55	457.1	7.5%	110-115	0	0.0%	170-175	0	0.0%
55-60	383.9	6.3%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	3097	50.9%
0-60	5034	82.7%
0-90	6090	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	2513	2513	2513	2513	2513	2513	2513	2513	2513	2513	2513	2513	2513	2513	2513	2513
5	2502	2501	2501	2497	2496	2497	2501	2501	2502	2501	2501	2497	2496	2497	2501	2501
10	2467	2465	2462	2458	2456	2458	2462	2465	2467	2465	2462	2458	2456	2458	2462	2465
15	2406	2403	2399	2396	2394	2396	2399	2403	2406	2403	2399	2396	2394	2396	2399	2403
20	2321	2314	2312	2308	2306	2308	2312	2314	2321	2314	2312	2308	2306	2308	2312	2314
25	2209	2200	2197	2194	2192	2194	2197	2200	2209	2200	2197	2194	2192	2194	2197	2200
30	2067	2060	2053	2047	2047	2047	2053	2060	2067	2060	2053	2047	2047	2047	2053	2060
35	1900	1888	1876	1869	1869	1869	1876	1888	1900	1888	1876	1869	1869	1869	1876	1888
40	1697	1684	1668	1646	1638	1646	1668	1684	1697	1684	1668	1646	1638	1646	1668	1684
45	1468	1457	1432	1387	1372	1387	1432	1457	1468	1457	1432	1387	1372	1387	1432	1457
50	1219	1218	1181	1126	1110	1126	1181	1218	1219	1218	1181	1126	1110	1126	1181	1218
55	986	976	936	897	887	897	936	976	986	976	936	897	887	897	936	976
60	771	759	729	707	704	707	729	759	771	759	729	707	704	707	729	759
65	595	580	559	557	558	557	559	580	595	580	559	557	558	557	559	580
70	448	443	427	440	442	440	427	443	448	443	427	440	442	440	427	443
75	333	331	327	339	345	339	327	331	333	331	327	339	345	339	327	331
80	229	229	231	239	243	239	231	229	229	229	231	239	243	239	231	229
85	119	116	122	127	128	127	122	116	119	116	122	127	128	127	122	116
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)

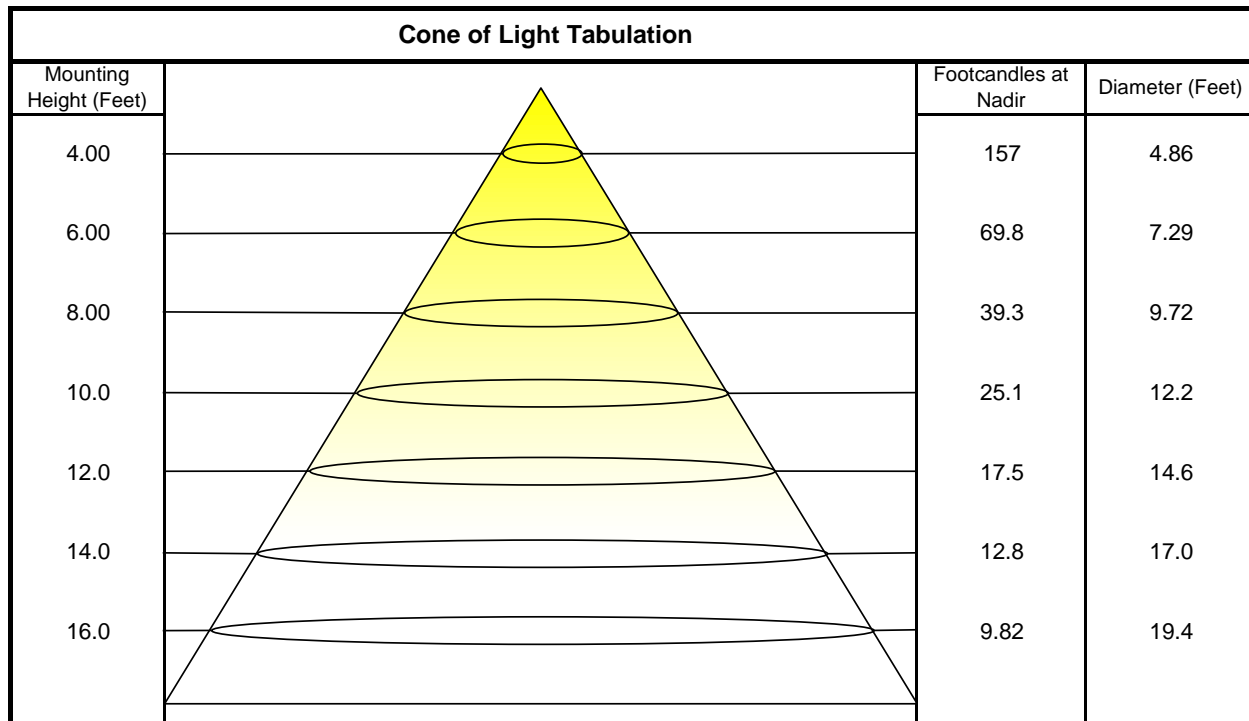
Vertical Angle (Degrees)	Horizontal Angle (Degrees)		
	0	45	90
0	4122	4122	4122
45	3405	3322	3182
55	2818	2676	2537
65	2308	2168	2164
75	2110	2071	2186
85	2230	2298	2415



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	7250	7250	7250	7250	7081	7081	7081	7081	6766	6766	6766	6479	6479	6479	6214	6214	6214	6090
1	6652	6373	6123	5898	6487	6235	6008	5802	5977	5790	5619	5740	5588	5447	5522	5399	5285	5159
2	6088	5609	5212	4879	5930	5495	5130	4821	5280	4974	4709	5083	4827	4603	4900	4689	4501	4372
3	5582	4969	4495	4117	5434	4874	4434	4080	4695	4318	4008	4529	4208	3939	4375	4104	3872	3743
4	5136	4437	3925	3534	4999	4357	3879	3509	4206	3791	3462	4066	3706	3415	3936	3626	3370	3242
5	4742	3990	3465	3077	4617	3923	3429	3060	3796	3360	3027	3677	3295	2995	3567	3232	2963	2838
6	4394	3612	3087	2711	4280	3555	3059	2699	3447	3005	2675	3346	2953	2652	3251	2902	2630	2508
7	4085	3290	2774	2413	3982	3241	2751	2404	3149	2708	2387	3062	2665	2370	2981	2625	2353	2236
8	3811	3013	2511	2166	3718	2971	2492	2159	2892	2457	2146	2817	2422	2134	2747	2389	2121	2008
9	3567	2774	2288	1959	3482	2738	2272	1954	2669	2243	1944	2604	2214	1935	2543	2187	1925	1817
10	3349	2566	2097	1785	3273	2534	2084	1781	2475	2059	1773	2418	2036	1765	2365	2012	1758	1654

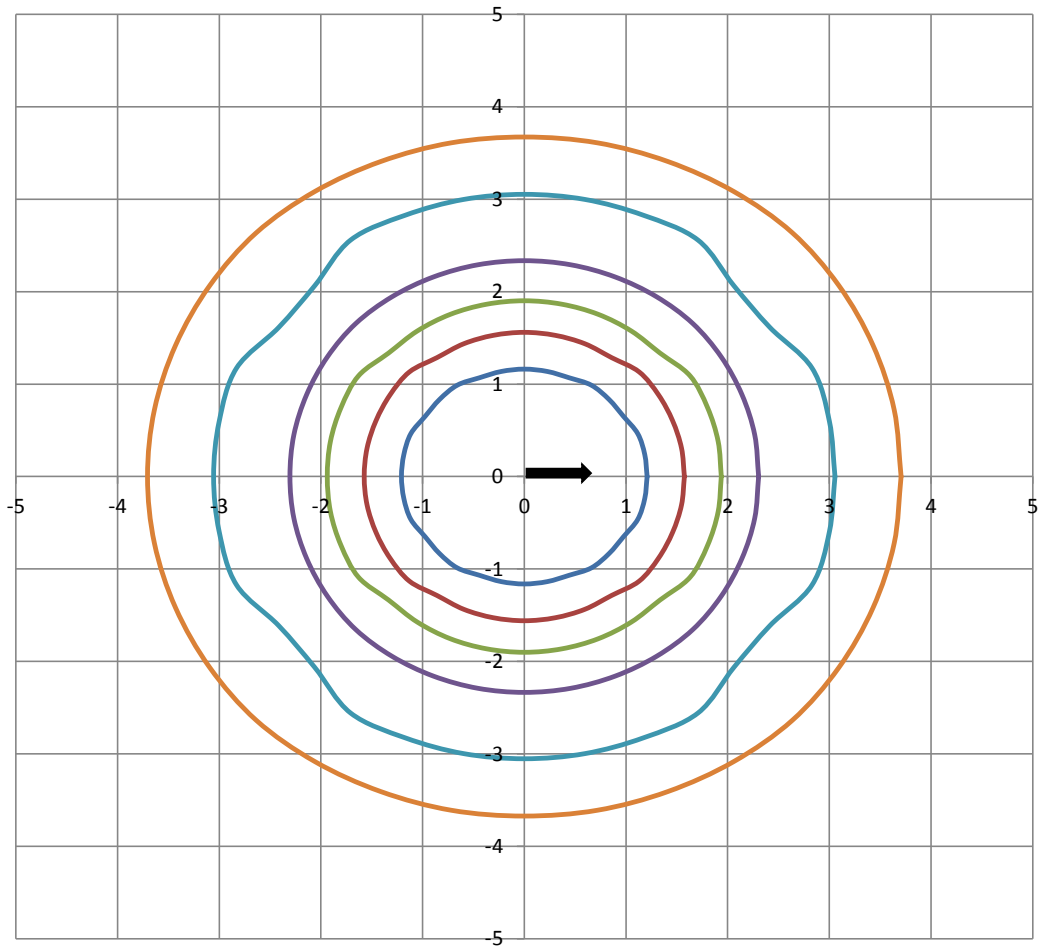
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	2513 Candela
Central Cone Intensity:	2508 Candela
Beam Flux:	4027.3 Lumens
Beam Angle (0-180):	98.5 Degrees
Beam Angle (90-270):	94.2 Degrees
Field Angle (0-180):	157.9 Degrees
Field Angle (90-270):	159.2 Degrees





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

