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Indoor Distribution Test Report

Relevant Standards
IES LM-79-2008
ANSI C82.77-2002

Prepared For
TechBrite LLC

Mandy Peck
1000 Kieley Pl
Cincinnati, OH 45217
United States

Catalog Number
UB4208SS1B5E0000

Order Number
11186413
Test Number
1222350

Test Date

2016-03-14

Prepared By

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Approved By

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The results contained in this report pertain only to the tested sample.
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Luminaire Description: White steel housing / reflector, no enclosure
Lamp: 1248 white LEDs
Mounting: Surface
Ballast/Driver: Four Everline D23CC90UNVT-F (2.3A)

Luminaire



Luminaire Characteristics

Luminous Length: 46.00 in.
Luminous Width: 18.50 in.

Summary of Results

Total Luminaire Output: 56900 Lumens
Luminaire Efficacy: 150.3 lm/w
Maximum Candela: 19331 Candela

Test Conditions

Test Temperature: 25.0 °C
Voltage: 120.0 VAC
Current: 3.162 A
Power: 378.5 W
Power Factor: 0.998
Frequency: 60 Hz
Current THD: 5.36 %

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



Distribution - Goniophotometer

Distribution Test Conditions

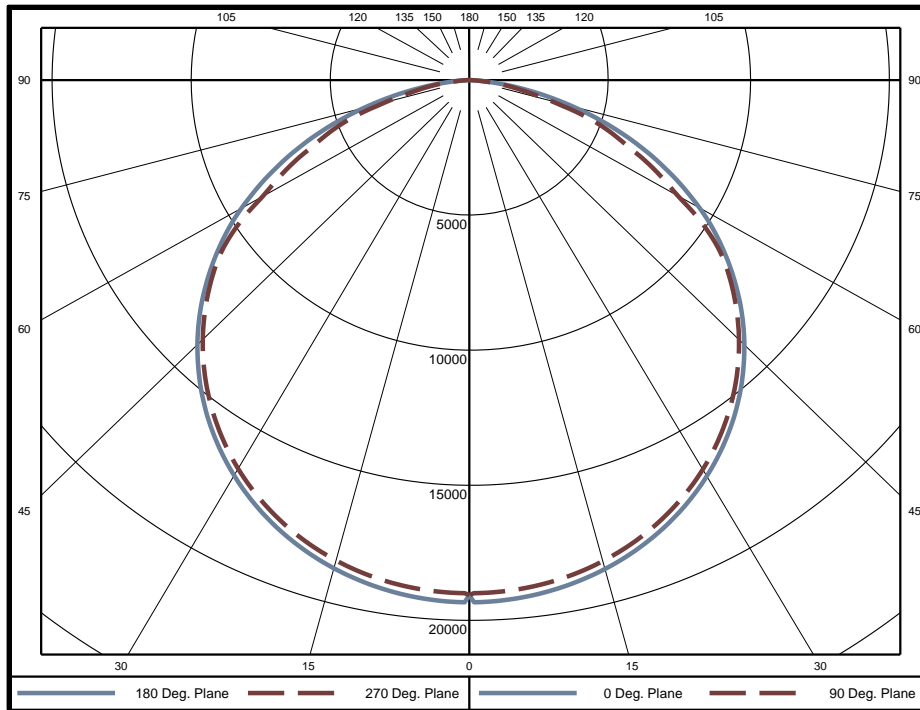
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.0 °C	120.0 VAC	3.162 A	378.5 W	0.998	60 Hz	5.36 %

Summary of Results

Spacing Criteria
 0-180: 1.31
 90-270: 1.31

Total Lumen Output: 56900 Lumens
Luminaire Efficacy: 150.3 lm/w
Maximum Candela: 19331 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	455	0.8%	60-65	4006	7.0%	120-125	0	0.0%
5-10	1353	2.4%	65-70	3211	5.6%	125-130	0	0.0%
10-15	2213	3.9%	70-75	2340	4.1%	130-135	0	0.0%
15-20	3010	5.3%	75-80	1391	2.4%	135-140	0	0.0%
20-25	3719	6.5%	80-85	609	1.1%	140-145	0	0.0%
25-30	4320	7.6%	85-90	112	0.2%	145-150	0	0.0%
30-35	4790	8.4%	90-95	0	0.0%	150-155	0	0.0%
35-40	5113	9.0%	95-100	0	0.0%	155-160	0	0.0%
40-45	5273	9.3%	100-105	0	0.0%	160-165	0	0.0%
45-50	5260	9.2%	105-110	0	0.0%	165-170	0	0.0%
50-55	5066	8.9%	110-115	0	0.0%	170-175	0	0.0%
55-60	4660	8.2%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	24973	43.9%
0-60	45232	79.5%
0-90	56901	100.0%
90-180	0	0.0%



Candela Tabulation
Horizontal Angle (Degrees)

Vertical 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	19070	19070	19070	19070	19070	19070	19070	19070	19070	19070	19070	19070	19070	19070	19070	19070
	5	19260	19040	18960	18920	18940	18920	18960	19040	19260	19040	18960	18920	18940	18920	18960	19040
	10	19060	18850	18770	18730	18750	18730	18770	18850	19060	18850	18770	18730	18750	18730	18770	18850
	15	18730	18520	18440	18410	18430	18410	18440	18520	18730	18520	18440	18410	18430	18410	18440	18520
	20	18260	18060	17980	17950	17970	17950	17980	18060	18260	18060	17980	17950	17970	17950	17980	18060
	25	17660	17470	17390	17350	17370	17350	17390	17470	17660	17470	17390	17350	17370	17350	17390	17470
	30	16910	16740	16660	16620	16640	16620	16660	16740	16910	16740	16660	16620	16640	16620	16660	16740
	35	16030	15870	15790	15740	15750	15740	15790	15870	16030	15870	15790	15740	15750	15740	15790	15870
	40	15010	14870	14780	14730	14740	14730	14780	14870	15010	14870	14780	14730	14740	14730	14780	14870
	45	13840	13710	13630	13580	13580	13580	13630	13710	13840	13710	13630	13580	13580	13580	13630	13710
	50	12520	12420	12340	12290	12290	12290	12340	12420	12520	12420	12340	12290	12290	12290	12340	12420
	55	11060	10980	10910	10860	10810	10860	10910	10980	11060	10980	10910	10860	10810	10860	10910	10980
	60	9457	9405	9342	8970	8584	8970	9342	9405	9457	9405	9342	8970	8584	8970	9342	9405
	65	7656	7656	7559	6873	6758	6873	7559	7656	7656	7559	6873	6758	6873	7559	7656	7656
	70	5789	5800	5329	5096	5068	5096	5329	5800	5789	5800	5329	5096	5068	5096	5329	5800
	75	3861	3924	3497	3187	3068	3187	3497	3924	3861	3924	3497	3187	3068	3187	3497	3924
80	2053	1932	1667	1608	1608	1608	1667	1932	2053	1932	1667	1608	1608	1608	1667	1932	
85	602	524	555	530	510	530	555	524	602	524	555	530	510	530	555	524	
90	11	11	11	13	15	13	11	11	11	11	11	13	15	13	11	11	
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)	0	45	90	
	0	34730	34730	34730
	45	35640	35110	34980
	55	35140	34640	34330
	65	32990	32580	29130
	75	27170	24610	21590
85	12580	11590	10660	



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	67738	67738	67738	67738	66163	66163	66163	66163	63222	63222	63222	60532	60532	60532	58061	58061	58061	56900
1	61973	59289	56885	54718	60424	57997	55809	53825	55578	53775	52123	53356	51886	50526	51307	50127	49024	47836
2	56304	51613	47731	44467	54803	50535	46965	43934	48511	45504	42906	46645	44133	41926	44919	42842	40989	39754
3	51253	45225	40560	36843	49834	44322	39994	36507	42619	38909	35854	41044	37881	35224	39583	36907	34615	33363
4	46852	39976	34942	31096	45535	39216	34512	30875	37780	33685	30442	36446	32896	30021	35206	32145	29612	28367
5	43024	35640	30481	26672	41816	34998	30147	26521	33782	29503	26223	32650	28887	25933	31593	28296	25648	24427
6	39677	32022	26884	23197	38578	31477	26621	23090	30442	26109	22878	29476	25618	22670	28572	25146	22466	21281
7	36745	28979	23945	20418	35748	28513	23733	20339	27629	23320	20183	26800	22923	20030	26022	22539	19880	18737
8	34171	26400	21514	18157	33269	26001	21341	18098	25241	21004	17981	24527	20678	17866	23855	20363	17752	16655
9	31897	24195	19479	16293	31082	23851	19336	16248	23194	19057	16158	22575	18787	16069	21992	18525	15981	14931
10	29883	22297	17758	14736	29146	21999	17639	14701	21428	17406	14630	20890	17180	14561	20380	16960	14492	13487

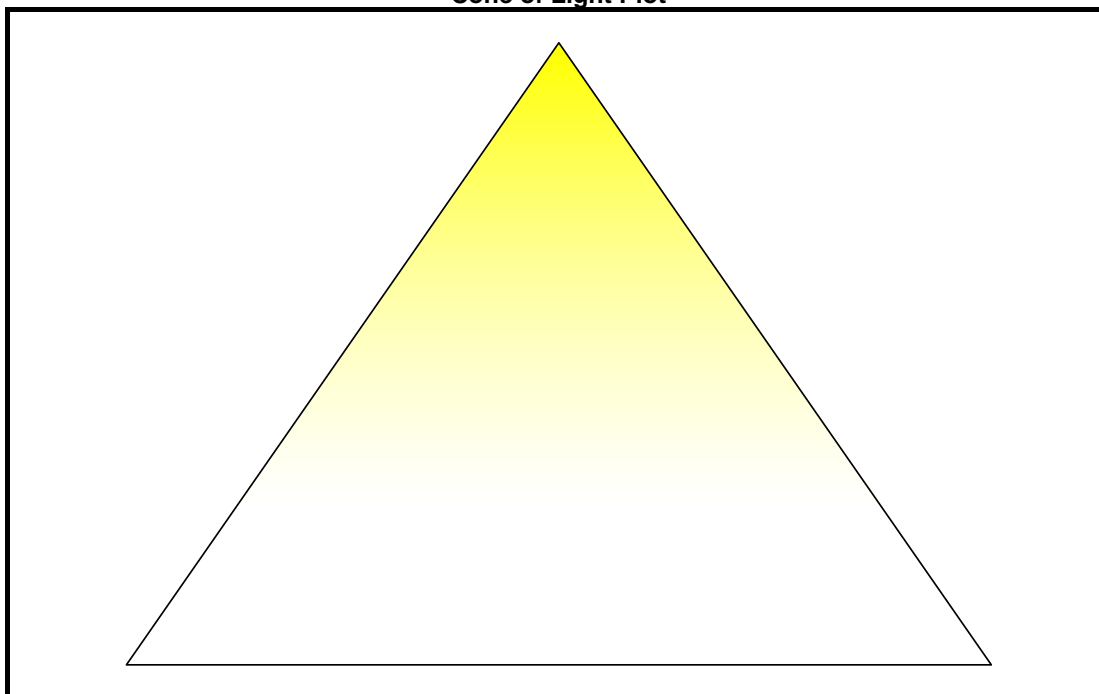
Cone of Light Tabulation

Mounting Height	Footcandles at Nadir	Diameter (Feet)
4.00	1190	5.20
6.00	530	7.81
8.00	298	10.4
10.0	191	13.0
12.0	132	15.6
14.0	97.3	18.2
16.0	74.5	20.8

Beam and Field Information

CIE Type:	Direct
Center Beam Intensity:	19070 Candela
Central Cone Intensity:	19046 Candela
Beam Flux:	44518.5 Lumens
Beam Angle (0-180):	119.6 Degrees
Beam Angle (90-270):	116.2 Degrees
Field Angle (0-180):	160.9 Degrees
Field Angle (90-270):	157.4 Degrees

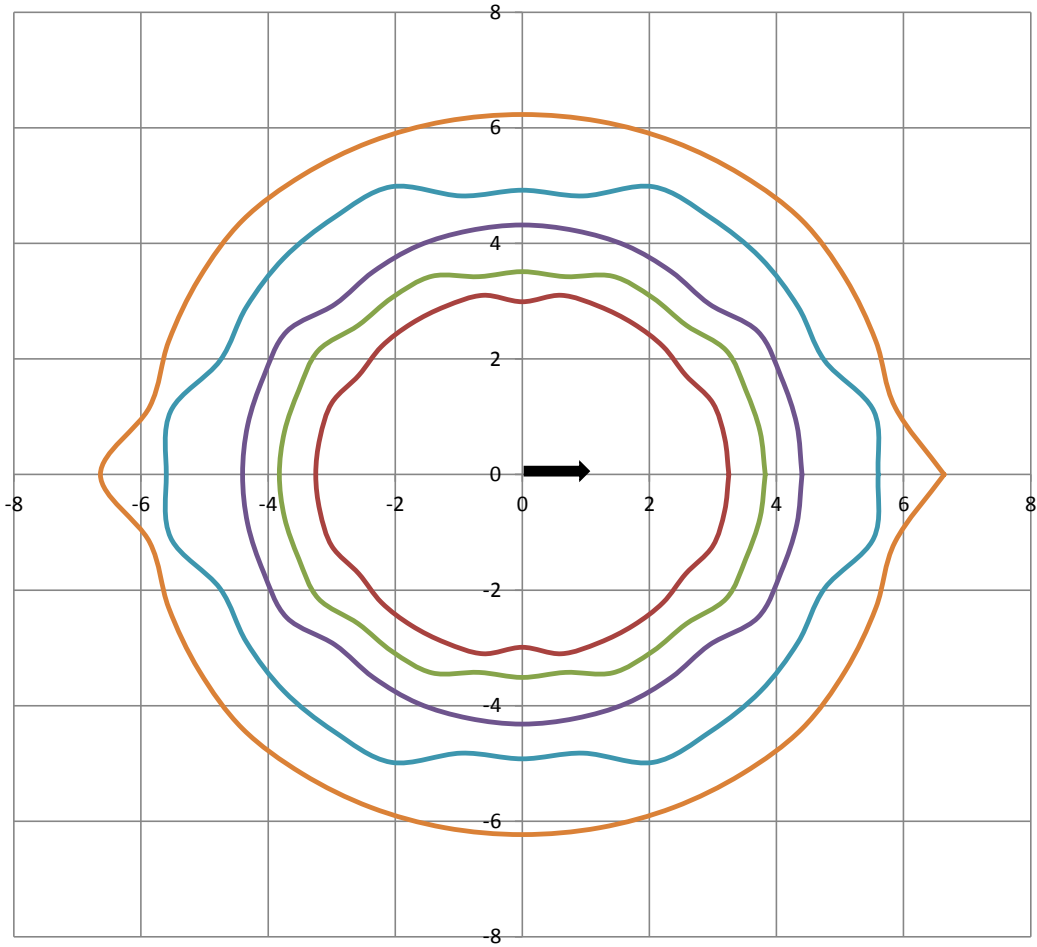
Cone of Light Plot





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

