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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
UB4208SS2B5A0000 5K

Order Number
11186398
Test Number
1238845

Test Date

2016-04-18

Prepared By

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Approved By

Carissa Samonte-cam, Project Handler

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, eight boards with 156 LEDs each
Mounting: High Bay
Ballast/Driver: Four Everline D23CC90HRVT-F

Luminaire



Luminaire Characteristics

Luminous Length: 46.00 in.
Luminous Width: 17.50 in.

Summary of Results

Total Luminaire Output: 32240 Lumens
Luminaire Efficacy: 152.7 lm/w
Maximum Candela: 10771 Candela

Test Conditions

Test Temperature: 25.2 °C
Voltage: 347.1 VAC
Current: 0.6300 A
Power: 211.1 W
Power Factor: 0.964
Frequency: 60 Hz
Current THD: 13.8 %

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



Distribution - Goniophotometer

Distribution Test Conditions

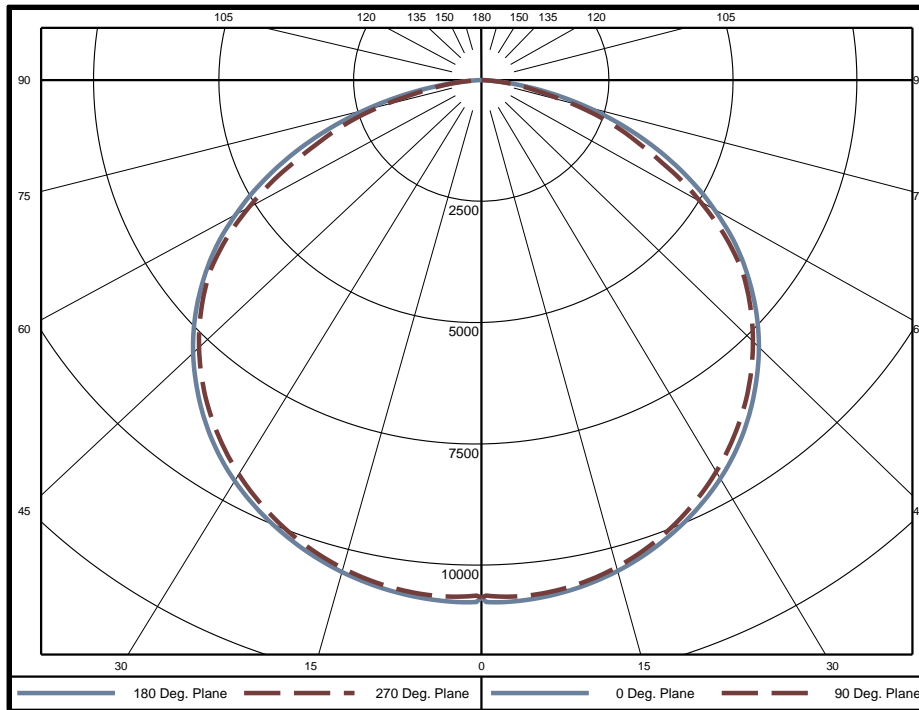
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.2 °C	347.1 VAC	0.6300 A	211.1 W	0.964	60 Hz	13.8 %

Summary of Results

Spacing Criteria
 0-180: 1.32
 90-270: 1.32

Total Lumen Output: 32240 Lumens
Luminaire Efficacy: 152.7 lm/w
Maximum Candela: 10771 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	256	0.8%	60-65	2297	7.1%	120-125	0	0.0%
5-10	763	2.4%	65-70	1841	5.7%	125-130	0	0.0%
10-15	1249	3.9%	70-75	1340	4.2%	130-135	0	0.0%
15-20	1698	5.3%	75-80	807	2.5%	135-140	0	0.0%
20-25	2097	6.5%	80-85	352	1.1%	140-145	0	0.0%
25-30	2434	7.5%	85-90	67	0.2%	145-150	0	0.0%
30-35	2699	8.4%	90-95	0	0.0%	150-155	0	0.0%
35-40	2881	8.9%	95-100	0	0.0%	155-160	0	0.0%
40-45	2974	9.2%	100-105	0	0.0%	160-165	0	0.0%
45-50	2972	9.2%	105-110	0	0.0%	165-170	0	0.0%
50-55	2869	8.9%	110-115	0	0.0%	170-175	0	0.0%
55-60	2647	8.2%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	14077	43.7%
0-60	25539	79.2%
0-90	32243	100.0%
90-180	0	0.0%



Candela Tabulation

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	10670	10670	10670	10670	10670	10670	10670	10670	10670	10670	10670	10670	10670	10670	10670	10670
5	10750	10730	10710	10680	10660	10680	10710	10730	10750	10730	10710	10680	10660	10680	10710	10730
10	10650	10630	10620	10600	10580	10600	10620	10630	10650	10630	10620	10600	10580	10600	10620	10630
15	10470	10450	10440	10410	10390	10410	10440	10450	10470	10450	10440	10410	10390	10410	10440	10450
20	10210	10190	10180	10140	10110	10140	10180	10190	10210	10190	10180	10140	10110	10140	10180	10190
25	9876	9860	9840	9781	9747	9781	9840	9860	9876	9860	9840	9781	9747	9781	9840	9860
30	9473	9456	9427	9352	9313	9352	9427	9456	9473	9456	9427	9352	9313	9352	9427	9456
35	8985	8973	8941	8852	8812	8852	8941	8973	8985	8973	8941	8852	8812	8852	8941	8973
40	8407	8405	8371	8287	8243	8287	8371	8405	8407	8405	8371	8287	8243	8287	8371	8405
45	7770	7764	7731	7655	7610	7655	7731	7764	7770	7764	7731	7655	7610	7655	7731	7764
50	7047	7040	7011	6947	6910	6947	7011	7040	7047	7040	7011	6947	6910	6947	7011	7040
55	6244	6239	6212	6160	6065	6160	6212	6239	6244	6239	6212	6160	6065	6160	6212	6239
60	5318	5342	5342	5133	5011	5133	5342	5342	5318	5342	5342	5133	5011	5133	5342	5342
65	4326	4350	4309	4005	3870	4005	4309	4350	4326	4350	4309	4005	3870	4005	4309	4350
70	3268	3305	3110	2917	2875	2917	3110	3305	3268	3305	3110	2917	2875	2917	3110	3305
75	2195	2234	1995	1886	1830	1886	1995	2234	2195	2234	1995	1886	1830	1886	1995	2234
80	1177	1122	992	924	928	924	992	1122	1177	1122	992	924	928	924	992	1122
85	355	310	317	319	316	319	317	310	355	310	317	319	316	319	317	310
90	4	7	14	19	22	19	14	7	4	7	14	19	22	19	14	7
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)

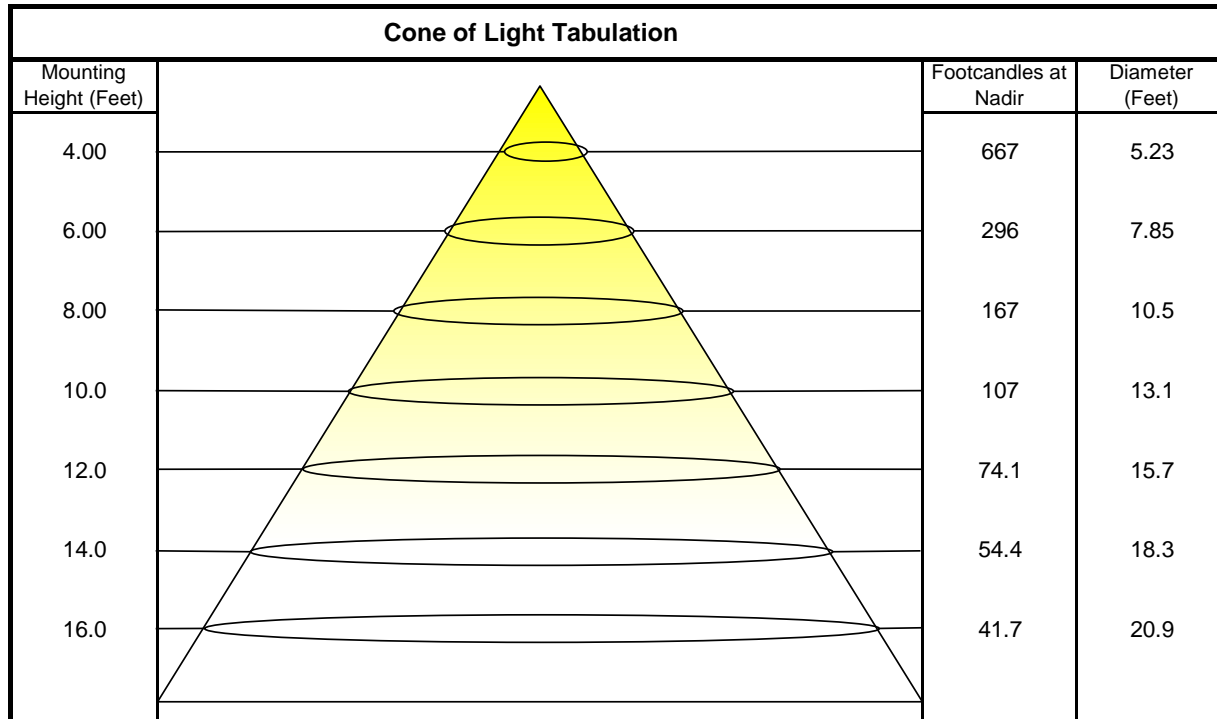
	0	45	90
0	20540	20540	20540
45	21160	21050	20720
55	20960	20850	20360
65	19710	19630	17630
75	16330	14840	13610
85	7843	7001	6974



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	38382	38382	38382	38382	37489	37489	37489	37489	35823	35823	35823	34299	34299	34299	32899	32899	32899	32241
1	35100	33573	32205	30972	34222	32841	31595	30466	31469	30443	29503	30209	29373	28599	29048	28376	27748	27074
2	31878	29211	27004	25148	31027	28600	26570	24847	27452	25742	24265	26394	24965	23710	25415	24234	23180	22479
3	29011	25586	22935	20822	28206	25073	22614	20632	24108	21999	20263	23214	21417	19906	22386	20864	19562	18851
4	26515	22610	19750	17565	25768	22178	19506	17440	21364	19037	17195	20607	18591	16957	19904	18165	16726	16018
5	24345	20153	17223	15060	23660	19788	17034	14975	19099	16669	14806	18457	16320	14642	17857	15985	14481	13788
6	22450	18104	15188	13095	21826	17795	15038	13034	17208	14748	12914	16660	14470	12797	16148	14202	12681	12008
7	20790	16382	13525	11523	20224	16118	13405	11479	15616	13171	11391	15146	12946	11304	14705	12728	11219	10570
8	19332	14923	12151	10246	18821	14697	12053	10212	14266	11861	10146	13861	11677	10081	13480	11498	10016	9394
9	18046	13676	11000	9193	17583	13481	10919	9167	13109	10761	9116	12758	10608	9066	12427	10460	9016	8421
10	16906	12603	10028	8314	16488	12434	9961	8294	12110	9829	8254	11805	9700	8215	11516	9576	8176	7606

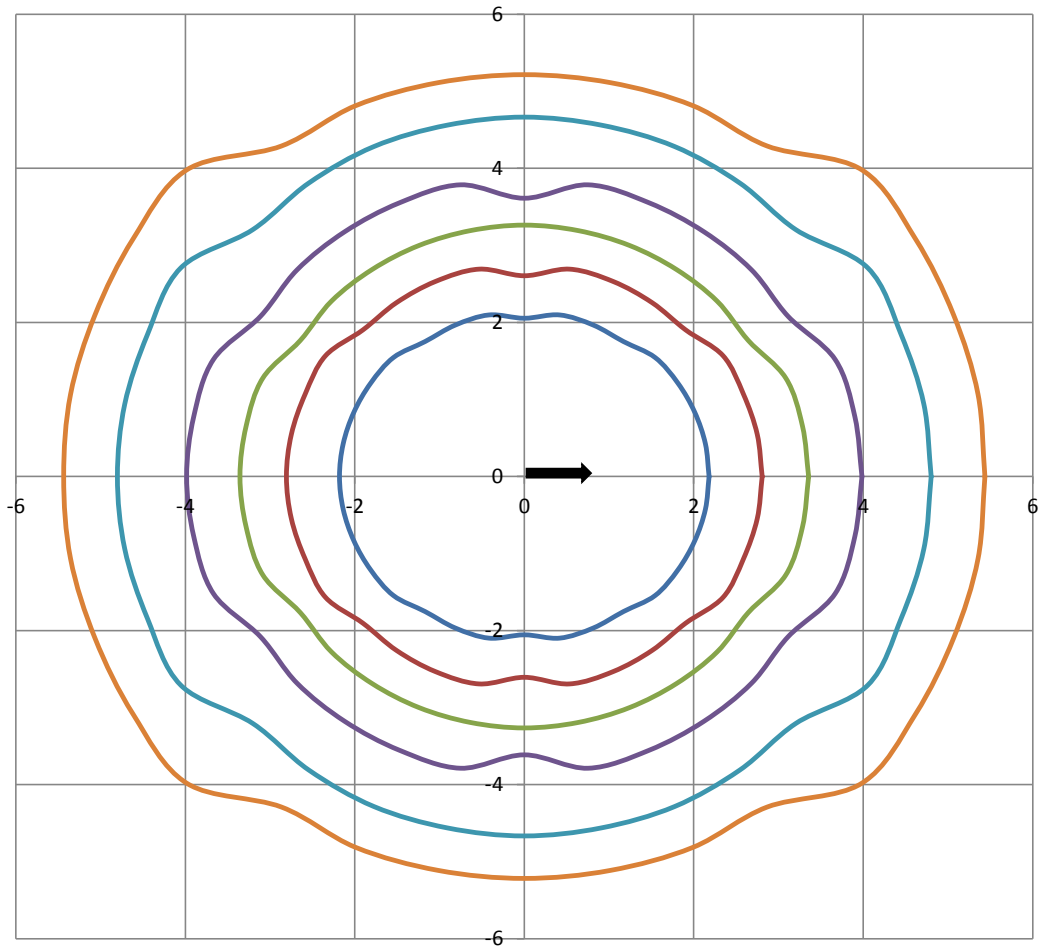
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	10670 Candela
Central Cone Intensity:	10701 Candela
Beam Flux:	25351.8 Lumens
Beam Angle (0-180):	119.8 Degrees
Beam Angle (90-270):	117.0 Degrees
Field Angle (0-180):	161.2 Degrees
Field Angle (90-270):	157.9 Degrees





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

