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Indoor Distribution Test Report

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

Prepared For
LF Illumination LLC
Justin Weaver
9200 Deering Avenue
Chatsworth, CA 91311

Catalog Number
MF31DNT45L8030WTDLDUWW
Order Number
10804087
Test Number
1096486

Test Date

2015-06-09

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: Aluminum housing, faceted specular plastic reflector, no enclosure
Lamp: One white LED
Mounting: Recessed
Ballast/Driver: GE Lightech GELD60DMV1400PU

Luminaire



Luminaire Characteristics

Luminous Diameter: 4.00 in.

Summary of Results

Total Luminaire Output:	3397 Lumens
Luminaire Efficacy:	75.7 lm/w
Maximum Candela:	6681 Candela

Electrical Data

Test Temperature:	25.2 °C
Voltage:	120.0 VAC
Current:	0.3761 A
Power:	44.85 W
Power Factor:	0.994
Frequency:	60 Hz
Current THD:	7.85 %

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	120.0 VAC	0.3761 A	44.85 W	0.994	60 Hz	7.85 %

Summary of Results

Spacing Criteria

0-180: 0.79
90-270: 0.79

Total Lumen Output:

3397 Lumens

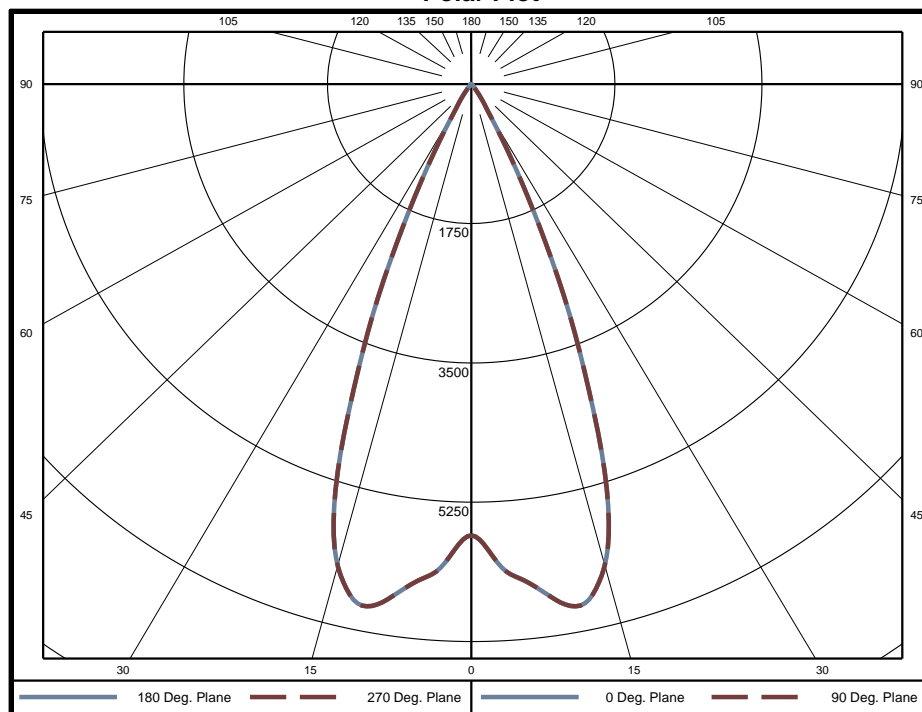
Luminaire Efficacy:

75.7 lm/w

Maximum Candela:

6681 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	144.2	4.2%	60-65	7.4	0.2%	120-125	0	0.0%
5-10	460.3	13.6%	65-70	7.5	0.2%	125-130	0	0.0%
10-15	778.2	22.9%	70-75	7.6	0.2%	130-135	0	0.0%
15-20	895.8	26.4%	75-80	7.1	0.2%	135-140	0	0.0%
20-25	650.0	19.1%	80-85	4.7	0.1%	140-145	0	0.0%
25-30	279.2	8.2%	85-90	1.3	0.0%	145-150	0	0.0%
30-35	87.8	2.6%	90-95	0	0.0%	150-155	0	0.0%
35-40	33.6	1.0%	95-100	0	0.0%	155-160	0	0.0%
40-45	11.7	0.3%	100-105	0	0.0%	160-165	0	0.0%
45-50	6.8	0.2%	105-110	0	0.0%	165-170	0	0.0%
50-55	7.0	0.2%	110-115	0	0.0%	170-175	0	0.0%
55-60	7.2	0.2%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	3329	98.0%
0-60	3362	99.0%
0-90	3397	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	5665	5665	5665	5665	5665	5665	5665	5665	5665	5665	5665	5665	5665	5665	5665	5665
5	6207	6207	6207	6207	6207	6207	6207	6207	6207	6207	6207	6207	6207	6207	6207	6207
10	6635	6635	6635	6635	6635	6635	6635	6635	6635	6635	6635	6635	6635	6635	6635	6635
15	6275	6275	6275	6275	6275	6275	6275	6275	6275	6275	6275	6275	6275	6275	6275	6275
20	4358	4358	4358	4358	4358	4358	4358	4358	4358	4358	4358	4358	4358	4358	4358	4358
25	1962	1962	1962	1962	1962	1962	1962	1962	1962	1962	1962	1962	1962	1962	1962	1962
30	501	501	501	501	501	501	501	501	501	501	501	501	501	501	501	501
35	176	176	176	176	176	176	176	176	176	176	176	176	176	176	176	176
40	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57
45	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
50	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
55	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
60	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
65	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
70	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
75	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
80	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
85	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
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)

	0	45	90
0	698700	698700	698700
45	3117	3117	3117
55	3466	3466	3466
65	4353	4353	4353
75	6941	6941	6941
85	6866	6866	6866



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	4044	4044	4044	4044	3950	3950	3950	3950	3775	3775	3775	3614	3614	3614	3467	3467	3467	3397
1	3885	3803	3729	3663	3803	3730	3664	3605	3594	3542	3494	3469	3428	3391	3353	3322	3293	3235
2	3733	3593	3477	3380	3661	3536	3431	3342	3429	3344	3270	3330	3261	3201	3238	3184	3135	3083
3	3590	3409	3269	3157	3527	3364	3236	3132	3278	3171	3083	3199	3110	3036	3125	3053	2991	2943
4	3455	3245	3091	2974	3399	3208	3066	2956	3139	3018	2923	3075	2972	2890	3015	2929	2858	2813
5	3328	3097	2936	2817	3278	3067	2917	2804	3010	2880	2781	2957	2845	2757	2908	2812	2734	2692
6	3206	2962	2797	2679	3162	2937	2783	2671	2890	2754	2653	2846	2727	2636	2804	2701	2620	2579
7	3092	2837	2672	2557	3052	2816	2661	2550	2777	2638	2538	2740	2617	2525	2705	2596	2513	2473
8	2983	2722	2558	2446	2947	2705	2549	2441	2671	2531	2431	2640	2514	2422	2610	2497	2413	2375
9	2880	2615	2453	2344	2847	2600	2446	2340	2572	2431	2333	2545	2417	2326	2519	2404	2319	2282
10	2782	2516	2357	2251	2753	2503	2350	2248	2478	2339	2242	2455	2327	2237	2433	2316	2231	2195

Cone of Light Tabulation

Mounting Height	Footcandles at Nadir	Diameter (Feet)
4.00	354	3.18
6.00	157	4.77
8.00	88.5	6.36
10.0	56.6	7.95
12.0	39.3	9.54
14.0	28.9	11.1
16.0	22.1	12.7

Cone of Light Plot

