



UL Verification Services Inc.
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Allentown, PA 18106
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Indoor Distribution Test Report

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

*Mercury Typed Notes Added:

The LR202 (4" Depth) and the LR102 (3" Depth) use the same reflector & lens.
The LED distance to the lens is the same so the photometrics would be equal.

Prepared For **Mercury Lighting**

Stephen Bambush
20 Audrey Pl
Fairfield, NJ 07004-3416

Catalog Number
LR202-24G-7500-35K-1%-UNI-XXXX

Order Number
11321901
Test Number
1261247

Test Date

2016-06-21

Prepared By

Kevin Rodriguez, Technician

Approved By

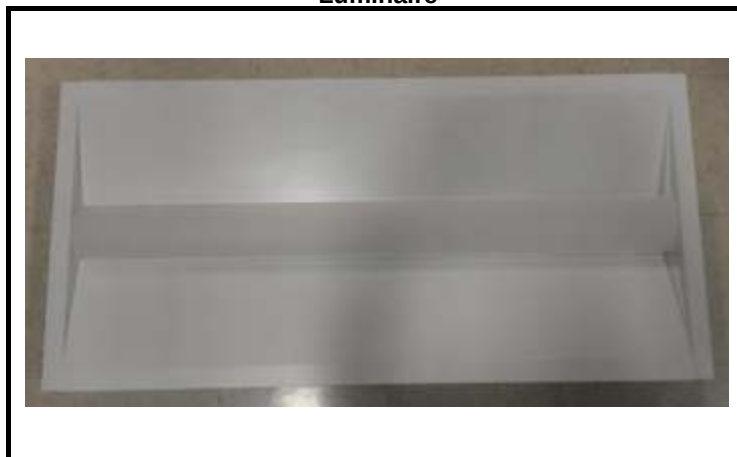
Timothy Wagner, Project Handler

The results contained in this report pertain only to the tested sample.
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Luminaire Description: Formed white enamel steel housing / reflector, frosted plastic lens enclosure
Lamp: 88 white LEDs
Mounting: Recessed
Ballast/Driver: One Philips Advance XI075C200V054BPT1

Luminaire



Luminaire Characteristics

Luminous Length: 45.00 in.
Luminous Width: 20.50 in.

Summary of Results

Total Luminaire Output:	7469 Lumens
Luminaire Efficacy:	105.2 lm/w
Maximum Candela:	2584 Candela

Test Conditions

Test Temperature:	25.1 °C
Voltage:	120.0 VAC
Current:	0.5930 A
Power:	71.03 W
Power Factor:	0.997
Frequency:	60 Hz
Current THD:	5.09 %

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
25.1 °C	120.0 VAC	0.5930 A	71.03 W	0.997	60 Hz	5.09 %

Summary of Results

Spacing Criteria

0-180: 1.17

90-270: 1.17

Total Lumen Output:

7469 Lumens

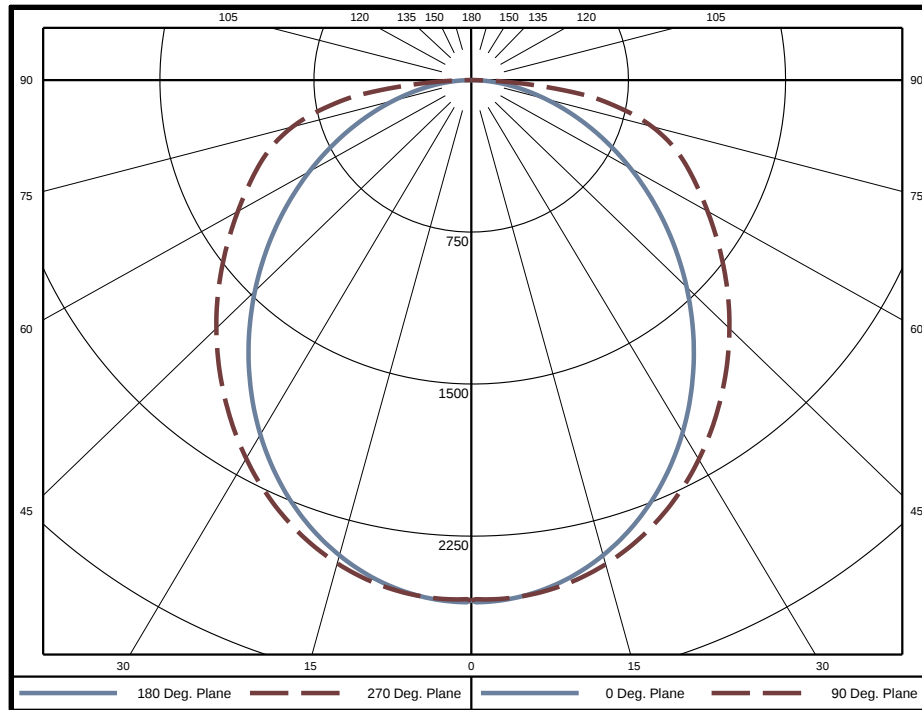
Luminaire Efficacy:

105.2 lm/w

Maximum Candela:

2584 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	61.4	0.8%	60-65	495.8	6.6%	120-125	0	0.0%
5-10	182.1	2.4%	65-70	442.2	5.9%	125-130	0	0.0%
10-15	295.5	4.0%	70-75	383.3	5.1%	130-135	0	0.0%
15-20	397.0	5.3%	75-80	310.8	4.2%	135-140	0	0.0%
20-25	482.7	6.5%	80-85	211.5	2.8%	140-145	0	0.0%
25-30	549.6	7.4%	85-90	68.5	0.9%	145-150	0	0.0%
30-35	596.1	8.0%	90-95	0	0.0%	150-155	0	0.0%
35-40	621.5	8.3%	95-100	0	0.0%	155-160	0	0.0%
40-45	626.8	8.4%	100-105	0	0.0%	160-165	0	0.0%
45-50	614.1	8.2%	105-110	0	0.0%	165-170	0	0.0%
50-55	585.6	7.8%	110-115	0	0.0%	170-175	0	0.0%
55-60	544.8	7.3%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	3186	42.7%
0-60	5557	74.4%
0-90	7469	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	2567	2567	2567	2567	2567	2567	2567	2567	2567	2567	2567	2567	2567	2567	2567
	5	2561	2571	2566	2563	2559	2563	2566	2571	2561	2571	2566	2563	2559	2563	2566
	10	2511	2524	2525	2531	2529	2531	2525	2524	2511	2524	2525	2531	2529	2531	2525
	15	2428	2445	2457	2472	2472	2472	2457	2445	2428	2445	2457	2472	2472	2472	2457
	20	2316	2339	2363	2389	2389	2389	2363	2339	2316	2339	2363	2389	2389	2389	2363
	25	2177	2206	2246	2284	2284	2284	2246	2206	2177	2206	2246	2284	2284	2284	2246
	30	2017	2053	2108	2159	2161	2159	2108	2053	2017	2053	2108	2159	2161	2159	2108
	35	1840	1882	1954	2019	2026	2019	1954	1882	1840	1882	1954	2019	2026	2019	1954
	40	1653	1699	1786	1867	1882	1867	1786	1699	1653	1699	1786	1867	1882	1867	1786
	45	1460	1511	1612	1711	1734	1711	1612	1511	1460	1511	1612	1711	1734	1711	1612
	50	1266	1320	1437	1552	1586	1552	1437	1320	1266	1320	1437	1552	1586	1552	1437
	55	1073	1132	1266	1396	1437	1396	1266	1132	1073	1132	1266	1396	1437	1396	1266
	60	886	950	1103	1247	1297	1247	1103	950	886	950	1103	1247	1297	1247	1103
	65	706	778	953	1112	1168	1112	953	778	706	778	953	1112	1168	1112	953
	70	536	621	818	986	1044	986	818	621	536	621	818	986	1044	986	818
	75	378	480	692	840	890	840	692	480	378	480	692	840	890	840	692
	80	236	354	537	634	668	634	537	354	236	354	537	634	668	634	537
	85	111	216	308	322	322	322	308	216	111	216	308	322	322	322	308
	90	0	4	7	9	9	9	7	4	0	4	7	9	9	9	7
	95	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
	105	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
	115	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
	125	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
	135	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
	145	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
	155	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
	165	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
	175	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

Average Luminance (cd/m²)
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	4313	4313
	45	3468	3831
	55	3144	3708
	65	2807	3788
	75	2452	4490
	85	2134	5927



Utilization of Lumens - Zonal Cavity Method

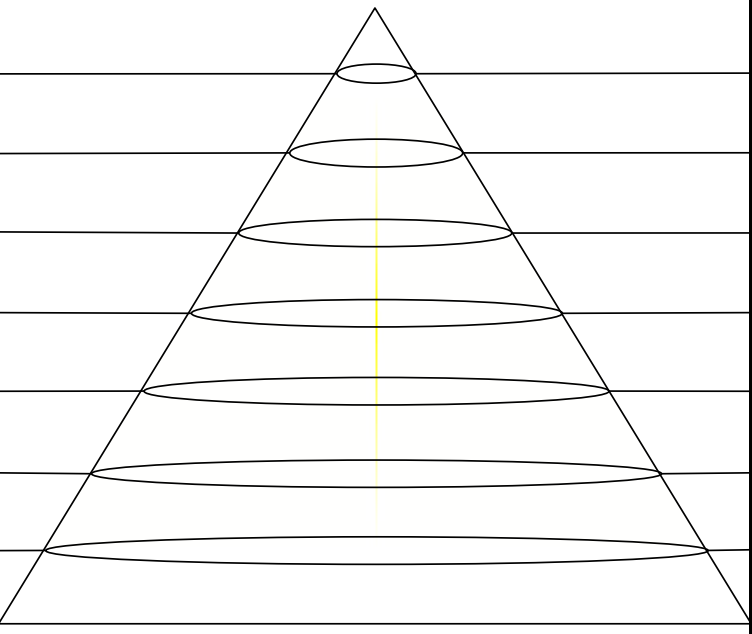
Effective Floor Cavity Reflectance 20%																		
Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																	
0	8892	8892	8892	8892	8685	8685	8685	8685	8299	8299	8299	7946	7946	7946	7622	7622	7622	7469
1	8036	7641	7288	6969	7827	7469	7147	6855	7147	6881	6636	6852	6633	6431	6579	6403	6238	6075
2	7273	6612	6066	5606	7070	6468	5965	5538	6198	5774	5407	5949	5594	5281	5719	5424	5161	4992
3	6613	5783	5141	4629	6422	5663	5067	4586	5436	4924	4502	5226	4789	4422	5031	4661	4344	4174
4	6048	5114	4431	3909	5872	5013	4374	3880	4822	4265	3825	4645	4162	3771	4480	4063	3718	3550
5	5560	4567	3873	3360	5399	4482	3829	3341	4320	3744	3303	4170	3663	3265	4030	3585	3228	3065
6	5135	4112	3425	2932	4989	4040	3390	2918	3903	3323	2891	3775	3258	2864	3655	3196	2838	2679
7	4763	3729	3059	2590	4631	3668	3031	2580	3551	2977	2560	3441	2925	2540	3338	2874	2520	2368
8	4436	3405	2757	2311	4316	3352	2734	2304	3252	2690	2289	3157	2647	2274	3069	2605	2259	2113
9	4146	3127	2503	2081	4039	3082	2484	2075	2995	2447	2064	2913	2412	2052	2836	2377	2041	1902
10	3890	2887	2288	1889	3792	2848	2272	1884	2773	2241	1875	2702	2212	1866	2635	2183	1857	1724

Beam and Field Information

CIE Type:	Direct
Center Beam Intensity:	2567 Candela
Central Cone Intensity:	2570 Candela
Beam Flux:	5021.2 Lumens
Beam Angle (0-180):	99.1 Degrees
Beam Angle (90-270):	121.0 Degrees
Field Angle (0-180):	158.4 Degrees
Field Angle (90-270):	171.7 Degrees

Cone of Light Tabulation

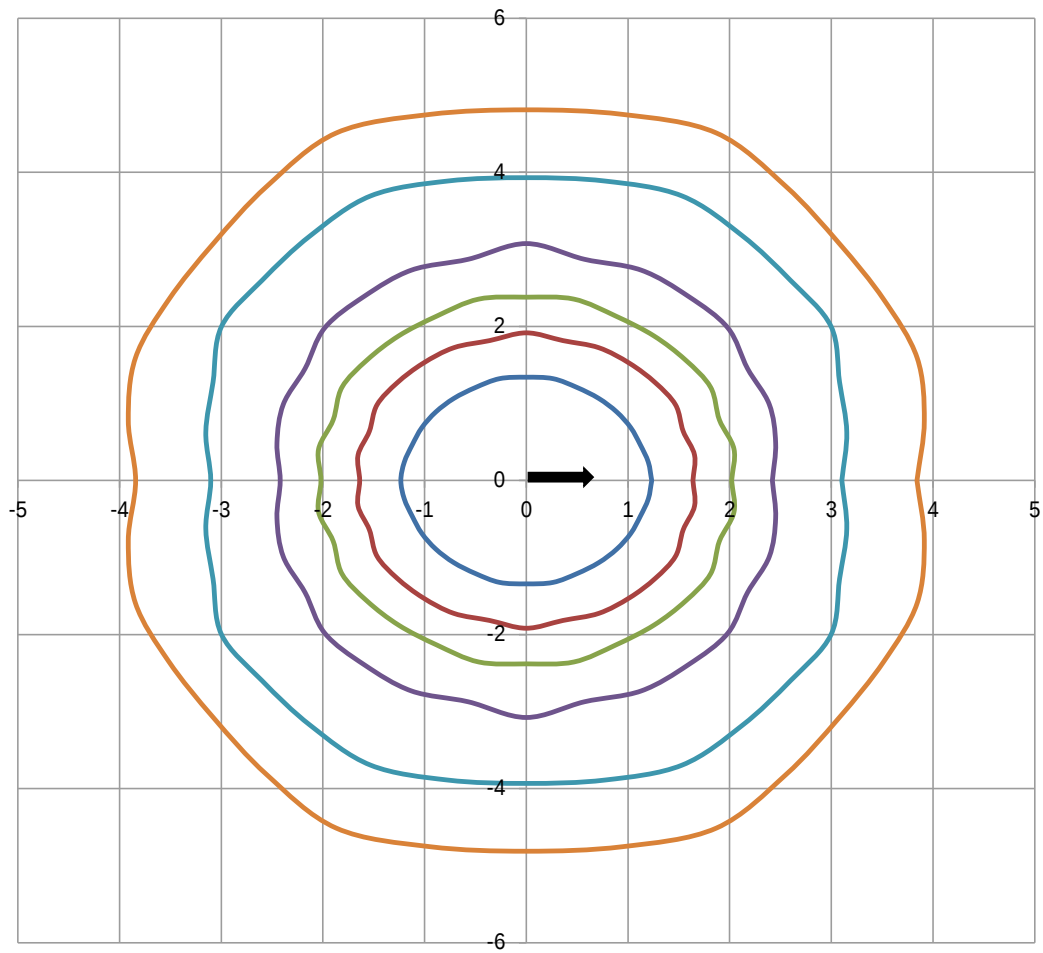
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		160	4.88
6.00		71.3	7.31
8.00		40.1	9.75
10.0		25.7	12.2
12.0		17.8	14.6
14.0		13.1	17.1
16.0		10.0	19.5





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

— 5 fc — 2 fc — 1 fc — 0.5 fc — 0.2 fc — 0.1 fc