



UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300



Indoor Distribution Test Report

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

Prepared For
Mercury Lighting

Stephen Bambush
20 Audrey Pl
Fairfield, NJ 07004-3416
United States

Catalog Number
LR402-24G-6200-35K-1%-UNI

Order Number
11170243
Test Number
1215245

Test Date

2016-02-25

Prepared By

Javier Caban, Technician

Approved By

Kyle Spaziani, Project Handler

The results contained in this report pertain only to the tested sample.
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Luminaire Description: White steel housing / reflector, frosted plastic lens enclosure
Lamp: 144 white LEDs
Mounting: Recessed
Ballast/Driver: One Universal Everline D15CC55UNVTW-LS

Luminaire



Luminaire Characteristics

Luminous Length: 47.00 in.
Luminous Width: 23.00 in.

Summary of Results

Total Luminaire Output: 6019 Lumens
Luminaire Efficacy: 96 lm/w
Maximum Candela: 2130 Candela

Electrical Data

Test Temperature: 24.6 °C
Voltage: 120.0 VAC
Current: 0.5237 A
Power: 62.71 W
Power Factor: 0.998
Frequency: 60 Hz
Current THD: 4.72 %

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
24.6 °C	120.0 VAC	0.5237 A	62.71 W	0.998	60 Hz	4.72 %

Summary of Results

Spacing Criteria

0-180: 1.17
90-270: 1.17

Total Lumen Output:

6019 Lumens

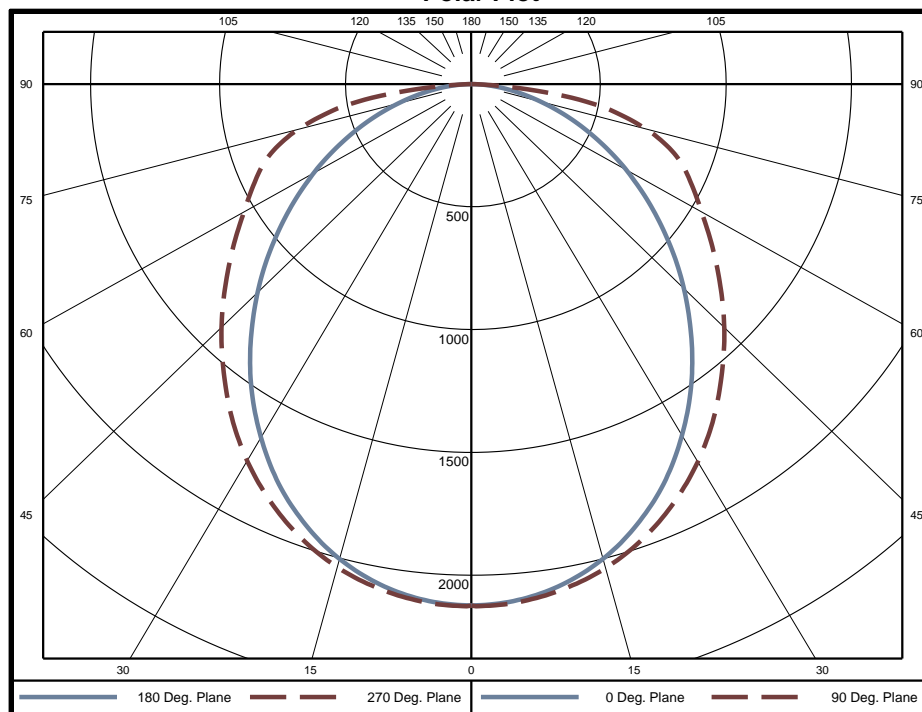
Luminaire Efficacy:

96.0 lm/w

Maximum Candela:

2130 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	50.6	0.8%	60-65	398.0	6.6%	120-125	0	0.0%
5-10	149.9	2.5%	65-70	357.0	5.9%	125-130	0	0.0%
10-15	243.1	4.0%	70-75	309.2	5.1%	130-135	0	0.0%
15-20	326.4	5.4%	75-80	245.0	4.1%	135-140	0	0.0%
20-25	396.3	6.6%	80-85	154.5	2.6%	140-145	0	0.0%
25-30	450.2	7.5%	85-90	37.8	0.6%	145-150	0	0.0%
30-35	486.7	8.1%	90-95	0	0.0%	150-155	0	0.0%
35-40	505.2	8.4%	95-100	0	0.0%	155-160	0	0.0%
40-45	507.1	8.4%	100-105	0	0.0%	160-165	0	0.0%
45-50	494.7	8.2%	105-110	0	0.0%	165-170	0	0.0%
50-55	470.2	7.8%	110-115	0	0.0%	170-175	0	0.0%
55-60	436.4	7.3%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	2608	43.3%
0-60	4517	75.0%
0-90	6018	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	2124	2124	2124	2124	2124	2124	2124	2124	2124	2124	2124	2124	2124	2124	2124	2124
5	2109	2117	2106	2112	2118	2112	2106	2117	2109	2117	2106	2112	2118	2112	2106	2117
10	2069	2078	2072	2082	2088	2082	2072	2078	2069	2078	2072	2082	2088	2082	2072	2078
15	2003	2014	2015	2031	2040	2031	2015	2014	2003	2014	2015	2031	2040	2031	2015	2014
20	1910	1926	1934	1958	1970	1958	1934	1926	1910	1926	1934	1958	1970	1958	1934	1926
25	1797	1814	1835	1867	1882	1867	1835	1814	1797	1814	1835	1867	1882	1867	1835	1814
30	1660	1684	1716	1759	1778	1759	1716	1684	1660	1684	1716	1759	1778	1759	1716	1684
35	1512	1539	1584	1638	1659	1638	1584	1539	1512	1539	1584	1638	1659	1638	1584	1539
40	1352	1384	1441	1506	1532	1506	1441	1384	1352	1384	1441	1506	1532	1506	1441	1384
45	1189	1224	1295	1374	1405	1374	1295	1224	1189	1224	1295	1374	1405	1374	1295	1224
50	1026	1065	1152	1243	1276	1243	1152	1065	1026	1065	1152	1243	1276	1243	1152	1065
55	866	909	1012	1117	1156	1117	1012	909	866	909	1012	1117	1156	1117	1012	909
60	712	759	880	1000	1045	1000	880	759	712	759	880	1000	1045	1000	880	759
65	563	621	762	901	951	901	762	621	563	621	762	901	951	901	762	621
70	424	494	662	807	857	807	662	494	424	494	662	807	857	807	662	494
75	292	378	560	679	712	679	560	378	292	378	560	679	712	679	560	378
80	178	275	416	493	514	493	416	275	178	275	416	493	514	493	416	275
85	81	155	205	199	191	199	205	155	81	155	205	199	191	199	205	155
90	0	3	2	1	1	1	2	3	0	3	2	1	1	1	2	3
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	3045	3045	3045
45	2411	2626	2849
55	2164	2529	2889
65	1910	2586	3227
75	1618	3100	3944
85	1326	3364	3138



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	7165	7165	7165	7165	6998	6998	6998	6998	6687	6687	6687	6403	6403	6403	6141	6141	6141	6019
1	6489	6178	5899	5647	6322	6040	5785	5554	5781	5570	5377	5543	5371	5211	5324	5185	5055	4925
2	5877	5351	4917	4551	5715	5236	4836	4496	5019	4681	4389	4819	4536	4288	4634	4400	4191	4055
3	5347	4684	4171	3763	5194	4587	4111	3728	4405	3996	3660	4236	3888	3595	4080	3785	3532	3395
4	4892	4145	3598	3180	4750	4064	3553	3157	3910	3465	3112	3768	3381	3069	3635	3302	3026	2891
5	4498	3703	3147	2737	4369	3634	3112	2721	3505	3044	2690	3384	2978	2660	3271	2916	2630	2499
6	4156	3335	2785	2390	4038	3277	2757	2379	3167	2703	2357	3064	2651	2335	2968	2601	2313	2187
7	3855	3026	2489	2113	3749	2977	2467	2104	2883	2423	2088	2795	2381	2072	2712	2340	2056	1934
8	3591	2764	2244	1887	3495	2722	2226	1881	2641	2190	1868	2565	2155	1856	2494	2122	1844	1727
9	3357	2539	2038	1700	3271	2503	2023	1695	2433	1994	1686	2367	1965	1676	2305	1937	1667	1555
10	3150	2345	1864	1543	3071	2314	1851	1540	2253	1826	1532	2196	1803	1525	2142	1779	1517	1411

Cone of Light Tabulation

Mounting Height	Footcandles at Nadir	Diameter (Feet)
4.00	133	4.83
6.00	59.0	7.24
8.00	33.2	9.65
10.0	21.2	12.1
12.0	14.7	14.5
14.0	10.8	16.9
16.0	8.30	19.3

Cone of Light Plot

