



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

Catalog Number
LR31-14-2100-35K-HTA-U30-UNI-XXXX
Order Number
10921177
Test Number
1147376

Test Date

2015-08-21

Prepared By

Kevin Rodriguez, Technician

Approved By

Kyle Spaziani, Project Handler

The results contained in this report pertain only to the tested sample.
This report shall not be reproduced, except in full, without written approval of Underwriters Laboratories.
This report must not be used by the client to claim product certification, approval, or endorsement by
NVLAP, NIST, or any agency of the Federal Government.



Luminaire Description: White steel housing, steel reflector, frosted plastic lens enclosure
Lamp: 72 white LEDs
Mounting: Recessed
Ballast/Driver: One Universal Everline D10CC30UNVTZ-C (.789 mA)

Luminaire



Luminaire Characteristics

Luminous Length: 46.00 in.
Luminous Width: 10.00 in.

Summary of Results

Total Luminaire Output: 2016 Lumens
Luminaire Efficacy: 94.8 lm/w
Maximum Candela: 766 Candela

Electrical Data

Test Temperature: 24.0 °C
Voltage: 120.0 VAC
Current: 0.1781 A
Power: 21.27 W
Power Factor: 0.995
Frequency: 60 Hz
Current THD: 6.40 %

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
24.0 °C	120.0 VAC	0.1781 A	21.27 W	0.995	60 Hz	6.40 %

Summary of Results

Spacing Criteria

0-180: 1.20
90-270: 1.20

Total Lumen Output:

Luminaire Efficacy:

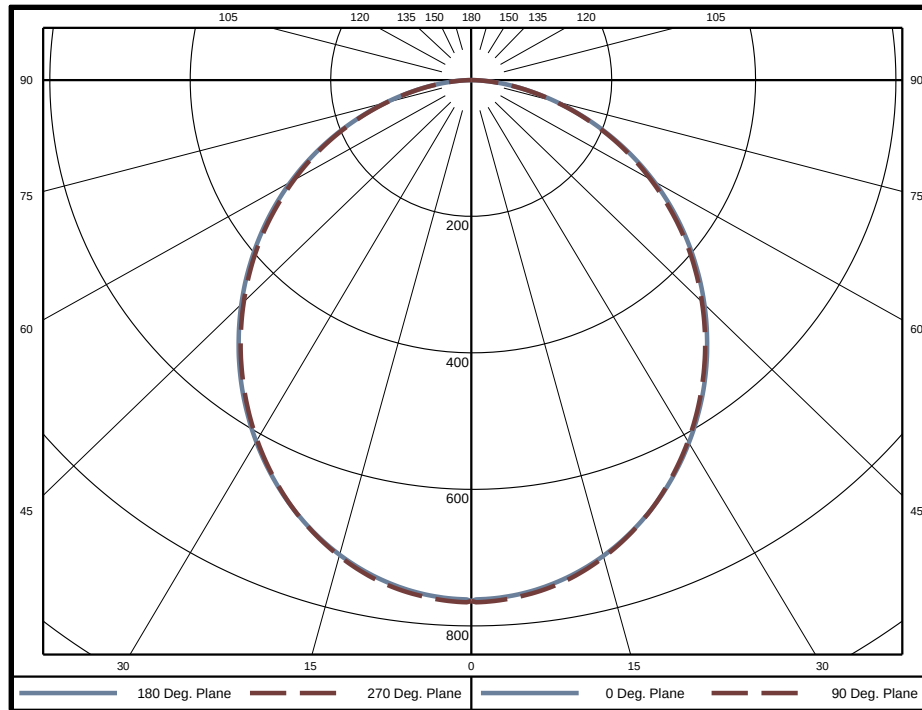
Maximum Candela:

2016 Lumens

94.8 lm/w

766 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	18.2	0.9%	60-65	130.4	6.5%	120-125	0	0.0%
5-10	53.8	2.7%	65-70	106.6	5.3%	125-130	0	0.0%
10-15	87.1	4.3%	70-75	80.5	4.0%	130-135	0	0.0%
15-20	116.8	5.8%	75-80	53.5	2.7%	135-140	0	0.0%
20-25	141.6	7.0%	80-85	28.6	1.4%	140-145	0	0.0%
25-30	160.8	8.0%	85-90	7.9	0.4%	145-150	0	0.0%
30-35	174.1	8.6%	90-95	0	0.0%	150-155	0	0.0%
35-40	181.1	9.0%	95-100	0	0.0%	155-160	0	0.0%
40-45	181.9	9.0%	100-105	0	0.0%	160-165	0	0.0%
45-50	176.9	8.8%	105-110	0	0.0%	165-170	0	0.0%
50-55	166.2	8.2%	110-115	0	0.0%	170-175	0	0.0%
55-60	150.5	7.5%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	934	46.3%
0-60	1609	79.8%
0-90	2017	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	763.7	763.7	763.7	763.7	763.7	763.7	763.7	763.7	763.7	763.7	763.7	763.7	763.7	763.7	763.7
	5	756.9	758.2	759.1	760.2	760.5	760.2	759.1	758.2	756.9	758.2	759.1	760.2	760.5	760.2	759.1
	10	743.6	744.6	745.3	746.7	747.2	746.7	745.3	744.6	743.6	744.6	745.3	746.7	747.2	746.7	745.3
	15	722.2	722.9	723.4	724.1	724.2	724.1	723.4	722.9	722.2	722.9	723.4	724.1	724.2	724.1	723.4
	20	693.1	693.5	693.5	693.5	693.6	693.5	693.5	693.5	693.1	693.5	693.5	693.5	693.6	693.5	693.5
	25	657.3	657.2	656.9	656.3	656.1	656.3	656.9	657.2	657.3	657.2	656.9	656.3	656.1	656.3	656.9
	30	615.7	615.5	614.7	613.3	613.1	613.3	614.7	615.5	615.7	615.5	614.7	613.3	613.1	613.3	614.7
	35	569.9	569.1	568.3	566.4	565.9	566.4	568.3	569.1	569.9	569.1	568.3	566.4	565.9	566.4	568.3
	40	520.1	519.2	518.2	515.8	515.6	515.8	518.2	519.2	520.1	519.2	518.2	515.8	515.6	515.8	518.2
	45	467.8	466.7	465.5	463.1	462.7	463.1	465.5	466.7	467.8	466.7	465.5	463.1	462.7	463.1	465.5
	50	413.5	411.8	410.5	408.6	408.6	408.6	410.5	411.8	413.5	411.8	410.5	408.6	408.6	408.6	410.5
	55	358.0	356.2	353.7	352.1	352.3	352.1	353.7	356.2	358.0	356.2	353.7	352.1	352.3	352.1	353.7
	60	300.8	298.9	296.5	295.2	295.2	295.2	296.5	298.9	300.8	298.9	296.5	295.2	295.2	295.2	296.5
	65	242.4	241.2	239.2	237.7	238.3	237.7	239.2	241.2	242.4	241.2	239.2	237.7	238.3	237.7	239.2
	70	183.4	183.1	181.8	180.9	180.9	180.9	181.8	183.1	183.4	183.1	181.8	180.9	180.9	180.9	181.8
	75	126.8	127.1	128.2	125.1	125.1	125.1	128.2	127.1	126.8	127.1	128.2	125.1	125.1	125.1	128.2
	80	75.5	75.8	75.1	74.3	74.1	74.3	75.1	75.8	75.5	75.8	75.1	74.3	74.1	74.3	75.1
	85	32.0	32.1	31.7	31.1	30.9	31.1	31.7	32.1	32.0	32.1	31.7	31.1	30.9	31.1	31.7
	90	0.7	1.4	1.3	1.4	1.4	1.4	1.3	1.4	0.7	1.4	1.3	1.4	1.4	1.4	1.3
	95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	2573	2573
	45	2229	2205
	55	2103	2069
	65	1932	1900
	75	1651	1629
	85	1237	1193



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	2401	2401	2401	2401	2345	2345	2345	2345	2241	2241	2241	2145	2145	2145	2058	2058	2058	2016
1	2196	2100	2015	1938	2141	2055	1977	1906	1969	1905	1846	1890	1838	1790	1817	1776	1736	1694
2	1999	1834	1698	1583	1946	1796	1671	1564	1725	1619	1528	1659	1570	1493	1598	1525	1460	1416
3	1824	1613	1450	1320	1774	1582	1430	1308	1521	1392	1285	1466	1355	1262	1414	1321	1241	1197
4	1672	1432	1256	1122	1626	1405	1241	1114	1354	1211	1098	1307	1183	1083	1264	1157	1069	1025
5	1539	1281	1101	968	1497	1259	1089	963	1216	1067	952	1176	1045	942	1139	1024	932	889
6	1422	1155	976	847	1384	1136	966	843	1100	948	836	1066	931	828	1034	914	821	779
7	1320	1049	873	750	1285	1032	865	747	1001	851	741	972	837	736	945	823	730	691
8	1229	958	787	670	1198	944	781	668	917	769	664	892	758	660	869	747	656	617
9	1149	880	715	604	1121	868	710	602	845	701	599	823	691	596	803	682	593	556
10	1078	813	654	549	1052	803	650	547	782	642	545	764	634	542	746	626	540	505

Cone of Light Tabulation

Mounting Height	Footcandles at Nadir	Diameter (Feet)
4.00	47.7	4.80
6.00	21.2	7.20
8.00	11.9	9.60
10.0	7.64	12.0
12.0	5.30	14.4
14.0	3.90	16.8
16.0	2.98	19.2

Cone of Light Plot

