



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

## Photometric Indoor 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  
LS2-4-5400-35K-S50-UNI-XXXX  
Project Number  
10455369  
Test Number  
728043

Test Date

2014-09-02

Prepared By

A handwritten signature in black ink, appearing to read 'Bhavik Shah'.

Bhavik Shah, Technician

Approved By

A handwritten signature in black ink, appearing to read 'Kyle Spaziani'.

Kyle Spaziani, 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, no enclosure  
Catalog Number: LS2-4-5400-35K-S50-UNI-XXXX  
Lamp: 120 white LEDs  
Mounting: Surface  
Ballast/Driver: One Osram Optotronic OT50W/PRG1400C/UNV/DIM/L

Luminaire



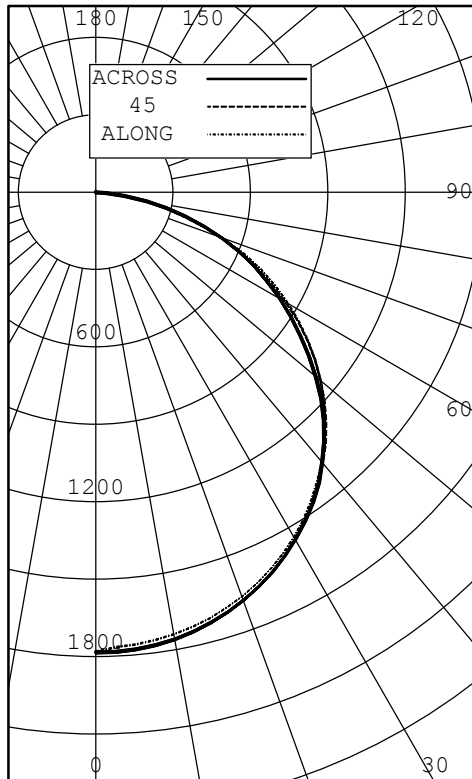
Test Conditions

Test Temperature:	24.8 °C
Voltage:	120.0 VAC
Current:	0.4572 A
Power:	54.66 W
Power Factor:	0.997
Frequency:	60 Hz
Current THD:	7.65 %



INTENSITY (CANDLEPOWER) SUMMARY

OUTPUT  
LUMENS



ANGLE	ALONG	22.5	45	67.5	ACROSS	OUTPUT LUMENS
0	1784	1784	1784	1784	1784	
5	1761	1781	1782	1783	1780	172
10	1741	1762	1763	1763	1760	
15	1710	1729	1730	1729	1728	487
20	1666	1684	1682	1682	1682	
25	1609	1626	1622	1624	1623	747
30	1540	1553	1550	1552	1551	
35	1458	1468	1465	1469	1469	916
40	1363	1372	1369	1370	1366	
45	1257	1264	1263	1255	1250	968
50	1137	1142	1138	1120	1114	
55	1005	1010	1003	977	967	886
60	861	868	849	832	822	
65	707	710	691	683	675	683
70	531	541	527	521	521	
75	340	360	361	360	360	379
80	191	191	204	207	201	
85	55	68	60	46	40	78
90	0	0	0	0	0	

ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	1405	26.43
0-40	2321	43.66
0-60	4175	78.54
0-90	5316	100.00
40-90	2995	56.34
60-90	1141	21.46
90-180	0	0.00
0-180	5316	100.00

EFFICACY (LUMENS PER WATT): 97.2

\*\*\* THIS IS AN ABSOLUTE TEST \*\*\*

LUMINOUS LENGTH: 44.380 INS  
 WIDTH: 2.750 INS

LUMINANCE SUMMARY CD./SQ.M.

S/MH: 1.3  
 SC: 1.3

ANGLE	ALONG	45	ACROSS
45	22575	22765	22532
55	22260	22285	21494
65	21235	20825	20372
75	16661	17720	17747
85	7956	8773	5807

TESTED IN ACCORDANCE WITH IES PROCEDURES.



INTENSITY (CANDLEPOWER) DATA  
IN 2.5 DEGREE STEPS

ANGLE	PLANE						OUTPUT LUMENS
	ALONG	22.5	45	67.5	ACROSS	AVERAGE	
0.0	1784	1784	1784	1784	1784	1784	
2.5	1766	1786	1787	1788	1785	1784	
5.0	1761	1781	1782	1783	1780	1779	172
7.5	1752	1773	1774	1774	1772	1771	
10.0	1741	1762	1763	1763	1760	1759	
12.5	1727	1746	1748	1748	1746	1745	
15.0	1710	1729	1730	1729	1728	1727	487
17.5	1689	1707	1708	1707	1707	1705	
20.0	1666	1684	1682	1682	1682	1681	
22.5	1639	1657	1654	1654	1654	1653	
25.0	1609	1626	1622	1624	1623	1622	747
27.5	1576	1591	1588	1589	1589	1588	
30.0	1540	1553	1550	1552	1551	1550	
32.5	1500	1512	1509	1512	1512	1510	
35.0	1458	1468	1465	1469	1469	1466	916
37.5	1412	1422	1418	1422	1420	1419	
40.0	1363	1372	1369	1370	1366	1369	
42.5	1311	1319	1318	1314	1310	1316	
45.0	1257	1264	1263	1255	1250	1259	968
47.5	1198	1205	1202	1188	1185	1197	
50.0	1137	1142	1138	1120	1114	1132	
52.5	1073	1077	1071	1050	1041	1064	
55.0	1005	1010	1003	977	967	994	886
57.5	935	941	928	905	895	922	
60.0	861	868	849	832	822	848	
62.5	785	791	770	759	749	772	
65.0	707	710	691	683	675	694	683
67.5	624	627	609	603	599	613	
70.0	531	541	527	521	521	529	
72.5	427	452	445	441	442	443	
75.0	340	360	361	360	360	358	379
77.5	263	271	278	281	282	276	
80.0	191	191	204	207	201	199	
82.5	112	124	135	120	112	123	
85.0	55	68	60	46	40	55	78
87.5	11	19	12	7	1	11	
90.0	0	0	0	0	0	0	



COEFFICIENTS OF UTILIZATION

ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE = .20

CC WALL	90				80				70				50				30				10				0
	70	50	30	10	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																									
0	1.221	.221	.221	.22	1.191	.191	.191	.19	1.161	.161	.161	.16	1.111	.111	.111	.11	1.061	.061	.061	.06	1.021	.021	.021	.02	1.00
1	1.121	.071	.030	.99	1.101	.051	.010	.97	1.071	.030	.990	.96	0.990	.960	.93	0.950	.920	.90	0.910	.890	.87	0.85			
2	1.030	.950	.880	.82	1.000	.930	.860	.81	0.980	.910	.850	.80	0.870	.820	.78	0.840	.800	.76	0.810	.780	.75	0.73			
3	0.940	.830	.750	.68	0.920	.820	.740	.68	0.890	.800	.730	.67	0.770	.710	.66	0.750	.690	.65	0.720	.680	.64	0.62			
4	0.870	.740	.650	.59	0.840	.730	.650	.58	0.820	.720	.640	.58	0.690	.620	.57	0.670	.610	.56	0.650	.600	.56	0.54			
5	0.800	.660	.570	.50	0.780	.650	.560	.50	0.750	.640	.560	.50	0.620	.550	.49	0.600	.540	.49	0.580	.530	.48	0.46			
6	0.730	.590	.500	.44	0.710	.580	.500	.43	0.690	.570	.490	.43	0.550	.480	.43	0.540	.470	.42	0.520	.460	.42	0.40			
7	0.670	.530	.440	.38	0.650	.520	.430	.38	0.640	.510	.430	.37	0.500	.420	.37	0.480	.410	.36	0.470	.410	.36	0.34			
8	0.620	.480	.390	.33	0.610	.470	.390	.33	0.590	.460	.380	.33	0.450	.380	.33	0.440	.370	.32	0.430	.370	.32	0.30			
9	0.580	.440	.350	.29	0.560	.430	.350	.29	0.550	.420	.340	.29	0.410	.340	.29	0.400	.330	.28	0.390	.330	.28	0.26			
10	0.530	.400	.310	.26	0.520	.390	.310	.26	0.510	.380	.310	.25	0.370	.300	.25	0.360	.300	.25	0.360	.290	.25	0.23			

THE ABOVE COEFFICIENTS HAVE BEEN CALCULATED BASED ON LUMINAIRE LUMENS  
 BECAUSE IN AN ABSOLUTE TEST THE BARE LAMP LUMENS ARE UNKNOWN.  
 LIGHTING DESIGN CALCULATIONS MADE USING THESE COEFFICIENTS SHOULD  
 THEREFORE USE THE LUMINAIRE LUMENS IN THE CALCULATION FORMULA

LABORATORY RESULTS MAY NOT BE REPRESENTATIVE OF FIELD PERFORMANCE.  
 BALLAST AND FIELD FACTORS HAVE NOT BEEN APPLIED.

TEST DISTANCE EXCEEDS FIVE TIMES THE GREATEST  
 LUMINOUS OPENING OF LUMINAIRE.