

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: PORTFOLIO

Report Number: P183606

Luminaire Tested: **LSM45M8030D010TEP**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P183606
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P27020)
Test Lab: INNOVATION CENTER-P2
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LSM45M8030D010TEP
Description: PORTFOLIO SURFACE MOUNT LED LUMINAIRE, MEDIUM DISTRIBUTION WITH CLEAR GLASS LENS
Light Source: 80 CRI, 3000K CCT LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4838.5 lumens
Efficiency: N/A
Efficacy: 108.3 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.28 / 1.33
Luminous Opening: Circular (Dia: 1.12' x H: 0')
CIE Type: Direct

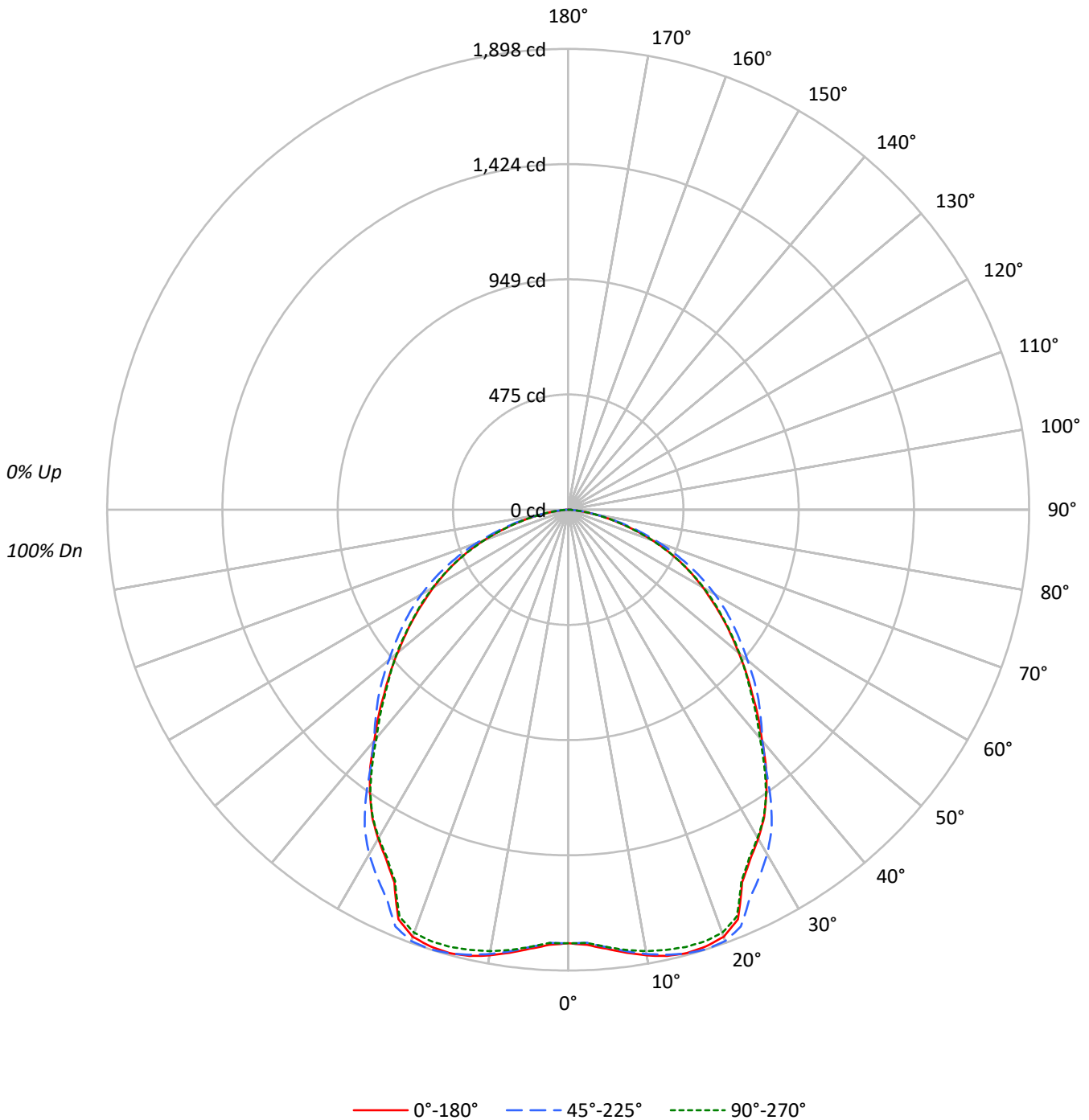
Input Watts (W): 44.68
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	80	98	90	85	79	87	82	78	84	80	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61
4	84	73	64	58	82	71	63	57	69	62	57	67	61	56	64	59	55	53
5	78	65	56	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	38	48	43	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	34	45	39	34	32
9	58	45	37	32	57	44	37	32	43	36	31	42	36	31	41	35	31	29
10	55	42	34	29	53	41	34	29	40	33	29	39	33	28	38	33	28	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19336	19336	19336
5°	19731	19654	19647
10°	20496	20432	20298
15°	21193	21207	20905
20°	21569	21784	21369
25°	20235	21119	20159
30°	19561	20485	19505
35°	18810	19218	18777
40°	17561	17569	17352
45°	16404	16966	16277
50°	15446	16237	15512
55°	14628	15672	14688
60°	13869	15108	13982
65°	13047	14169	13032
70°	11705	12642	11645
75°	9631	10384	9656
80°	7015	7496	7215
85°	4075	4311	4237



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	175.1	3.6
10°-20°	535.4	11.1
20°-30°	803.9	16.6
30°-40°	880.0	18.2
40°-50°	860.8	17.8
50°-60°	742.8	15.4
60°-70°	531.0	11.0
70°-80°	260.9	5.4
80°-90°	48.6	1.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1514.4	31.3
0°-40°	2394.4	49.5
0°-60°	3998.0	82.6
0°-90°	4838.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4838.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1786	1786	1786	1786	1786	
5°	1815	1831	1808	1822	1807	175
15°	1890	1916	1892	1894	1865	534
25°	1694	1794	1768	1782	1687	789
35°	1423	1401	1454	1384	1420	886
45°	1071	1143	1108	1130	1063	829
55°	775	845	830	836	778	693
65°	509	537	553	532	509	502
75°	230	243	248	238	231	247
85°	33	35	35	34	34	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1785.6	1785.6	1785.6	1785.6	1785.6	1785.6	1785.6	1785.6	1785.6	1785.6	1785.6
2.5°	1793.9	1808.7	1796.5	1793.9	1783.7	1808.1	1799.1	1801.0	1793.9	1795.2	1785.6
5°	1815.2	1830.6	1819.0	1815.8	1805.5	1830.6	1821.6	1822.9	1815.8	1817.7	1808.1
7.5°	1840.2	1856.3	1844.1	1842.2	1832.5	1857.6	1849.2	1850.5	1842.8	1844.1	1834.5
10°	1864.0	1881.4	1869.2	1867.9	1858.2	1885.3	1876.2	1877.5	1868.5	1869.2	1858.2
12.5°	1882.7	1900.7	1888.5	1888.5	1879.5	1905.2	1898.1	1899.4	1890.4	1890.4	1877.5
15°	1890.4	1909.0	1896.2	1898.1	1889.1	1916.1	1909.7	1910.3	1902.6	1904.5	1891.7
17.5°	1885.9	1904.5	1893.0	1894.3	1885.9	1913.5	1907.1	1909.7	1903.3	1908.4	1897.5
20°	1871.7	1888.5	1874.3	1875.6	1869.2	1896.8	1892.3	1896.8	1892.3	1900.0	1890.4
22.5°	1826.1	1841.5	1833.8	1842.2	1840.9	1870.5	1867.9	1871.7	1864.7	1868.5	1858.2
25°	1693.6	1713.6	1711.0	1734.8	1757.3	1793.9	1791.4	1792.7	1777.9	1779.2	1767.6
27.5°	1622.9	1639.6	1630.0	1631.3	1622.3	1642.8	1644.1	1676.3	1695.6	1712.9	1705.2
30°	1564.4	1577.3	1554.1	1538.0	1514.9	1535.5	1534.2	1562.5	1596.5	1637.1	1638.3
32.5°	1501.4	1505.2	1472.4	1450.6	1442.2	1464.1	1462.8	1471.2	1496.9	1540.6	1559.9
35°	1422.9	1426.2	1385.6	1379.2	1379.2	1401.1	1395.9	1398.5	1412.7	1440.9	1453.8
37.5°	1338.7	1334.2	1311.1	1312.3	1317.5	1337.4	1333.6	1333.6	1338.1	1350.9	1334.8
40°	1242.3	1247.4	1240.3	1246.8	1251.3	1270.6	1268.6	1269.9	1268.0	1260.9	1242.9
42.5°	1156.7	1169.6	1177.3	1185.0	1185.7	1204.3	1203.0	1208.2	1198.5	1179.9	1174.1
45°	1071.2	1086.7	1107.9	1123.3	1124.6	1142.6	1142.6	1143.9	1123.9	1110.4	1107.9
47.5°	994.1	1010.1	1032.0	1055.1	1059.0	1077.7	1077.7	1074.4	1053.2	1044.9	1036.5
50°	916.9	937.5	958.1	985.7	987.6	1001.8	1002.4	999.2	989.6	979.3	963.8
52.5°	843.6	868.7	888.6	911.1	912.4	924.0	921.4	924.0	925.3	913.7	895.0
55°	774.8	800.5	817.9	834.0	837.2	844.9	839.7	848.1	855.8	845.5	830.1
57.5°	704.1	731.7	746.5	757.4	760.0	766.4	761.3	772.2	782.5	776.1	765.8
60°	640.4	662.3	672.6	682.9	683.5	689.9	685.4	696.4	707.9	704.7	697.6
62.5°	574.8	590.3	598.0	608.9	605.7	612.1	614.1	623.7	632.1	632.7	626.9
65°	509.2	517.6	524.0	530.5	531.8	536.9	538.8	542.7	555.5	556.8	553.0
67.5°	439.8	444.9	450.7	456.5	455.9	461.0	466.2	470.0	478.4	481.6	476.5
70°	369.7	376.1	379.4	381.9	381.3	386.4	390.9	394.2	401.9	403.8	399.3
72.5°	299.0	305.4	308.0	308.6	308.0	313.8	317.6	319.6	326.0	329.2	322.1
75°	230.2	238.5	239.8	238.5	237.9	243.1	245.0	248.2	252.7	253.3	248.2
77.5°	167.8	174.9	176.2	174.3	173.0	176.8	178.1	181.3	183.9	185.2	180.0
80°	112.5	119.6	119.0	118.3	116.4	119.0	120.9	122.2	124.1	124.1	120.2
82.5°	67.5	72.0	71.4	72.0	70.1	70.7	72.0	73.9	73.3	74.6	72.0
85°	32.8	34.7	34.7	34.7	34.1	34.7	35.4	36.7	35.4	36.7	34.7
87.5°	11.6	12.2	11.6	11.6	11.6	11.6	12.2	12.2	11.6	12.2	11.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1785.6	1785.6	1785.6	1785.6	1785.6	1785.6	1785.6	1785.6	1785.6	1785.6
2.5°	1799.1	1788.8	1799.1	1794.6	1800.4	1798.4	1799.1	1806.2	1790.1	1786.2
5°	1821.6	1810.7	1821.0	1817.7	1822.2	1820.3	1821.6	1828.7	1811.9	1807.4
7.5°	1847.3	1835.7	1846.0	1841.5	1846.0	1844.1	1844.7	1850.5	1833.2	1829.3
10°	1871.1	1858.9	1867.9	1863.4	1866.0	1864.0	1865.3	1869.2	1850.5	1846.0
12.5°	1889.8	1877.5	1886.5	1881.4	1882.7	1880.1	1879.5	1881.4	1862.1	1857.0
15°	1905.2	1893.0	1899.4	1894.3	1893.6	1889.8	1888.5	1889.1	1869.8	1864.7
17.5°	1909.7	1895.5	1899.4	1893.6	1891.7	1888.5	1887.2	1888.5	1869.8	1864.7
20°	1900.7	1884.0	1885.9	1878.8	1876.2	1873.7	1873.7	1875.6	1857.6	1854.4
22.5°	1869.8	1855.7	1860.2	1855.7	1853.1	1850.5	1846.0	1841.5	1818.4	1813.9
25°	1779.8	1770.2	1786.9	1789.4	1782.4	1768.9	1743.8	1724.5	1691.1	1687.2
27.5°	1713.6	1693.6	1673.7	1648.6	1633.8	1628.1	1631.9	1639.0	1621.6	1615.2
30°	1639.6	1596.5	1558.0	1532.2	1522.6	1521.3	1536.7	1555.4	1558.6	1559.9
32.5°	1547.7	1493.0	1463.4	1455.1	1448.7	1446.7	1451.9	1473.1	1486.6	1498.8
35°	1443.5	1405.6	1390.1	1390.8	1384.4	1381.8	1378.6	1391.4	1405.6	1420.4
37.5°	1346.4	1329.7	1325.2	1327.8	1320.7	1316.8	1313.0	1316.2	1320.7	1325.8
40°	1255.1	1259.0	1261.5	1263.5	1254.5	1251.9	1248.7	1247.4	1239.7	1227.5
42.5°	1177.3	1187.6	1199.2	1199.2	1189.5	1188.2	1188.9	1185.0	1161.9	1145.2
45°	1110.4	1114.3	1134.2	1138.1	1129.7	1127.8	1128.4	1116.2	1079.6	1062.9
47.5°	1044.9	1046.8	1064.8	1073.8	1064.8	1062.9	1064.8	1039.1	999.2	990.8
50°	978.6	983.8	991.5	999.9	991.5	990.8	988.9	964.5	925.3	920.8
52.5°	911.8	922.0	918.2	920.1	915.0	915.6	917.5	892.5	856.5	848.7
55°	843.6	853.2	843.6	838.5	836.5	838.5	842.3	819.2	790.9	778.0
57.5°	776.1	781.9	771.6	761.3	758.1	762.6	765.8	746.5	722.1	712.4
60°	706.0	704.7	696.4	686.7	680.3	685.4	690.6	673.2	651.4	645.6
62.5°	632.1	630.8	620.5	612.1	605.7	609.6	614.7	598.0	583.2	578.0
65°	556.2	554.9	544.0	537.5	531.8	533.0	538.8	523.4	514.4	508.6
67.5°	482.9	478.4	467.5	463.6	456.5	459.1	463.0	450.7	442.4	437.2
70°	405.7	401.9	392.2	388.4	382.6	383.9	387.7	380.0	371.0	367.8
72.5°	327.3	326.6	317.6	312.5	309.3	309.9	313.1	309.3	300.9	298.3
75°	251.4	253.3	246.3	241.8	238.5	238.5	242.4	243.1	234.0	230.8
77.5°	185.2	185.2	179.4	180.0	174.9	174.9	177.5	180.0	170.4	168.5
80°	124.1	123.5	121.5	119.6	117.0	117.7	119.6	122.8	115.1	115.7
82.5°	73.3	73.3	73.3	72.0	70.1	69.4	72.0	74.6	69.4	69.4
85°	36.0	35.4	35.4	35.4	34.1	33.4	35.4	36.7	33.4	34.1
87.5°	12.2	11.6	11.6	12.2	11.6	11.6	11.6	11.6	10.9	11.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)