

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: P183611

Luminaire Tested: **LSM45M8035D010TEP**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P183611  
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: LSM45M8035D010TEP  
Description: PORTFOLIO SURFACE MOUNT LED LUMINAIRE, MEDIUM DISTRIBUTION WITH CLEAR GLASS LENS  
Light Source: 80 CRI, 3500K CCT LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5128.6 lumens  
Efficiency: N/A  
Efficacy: 114.8 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

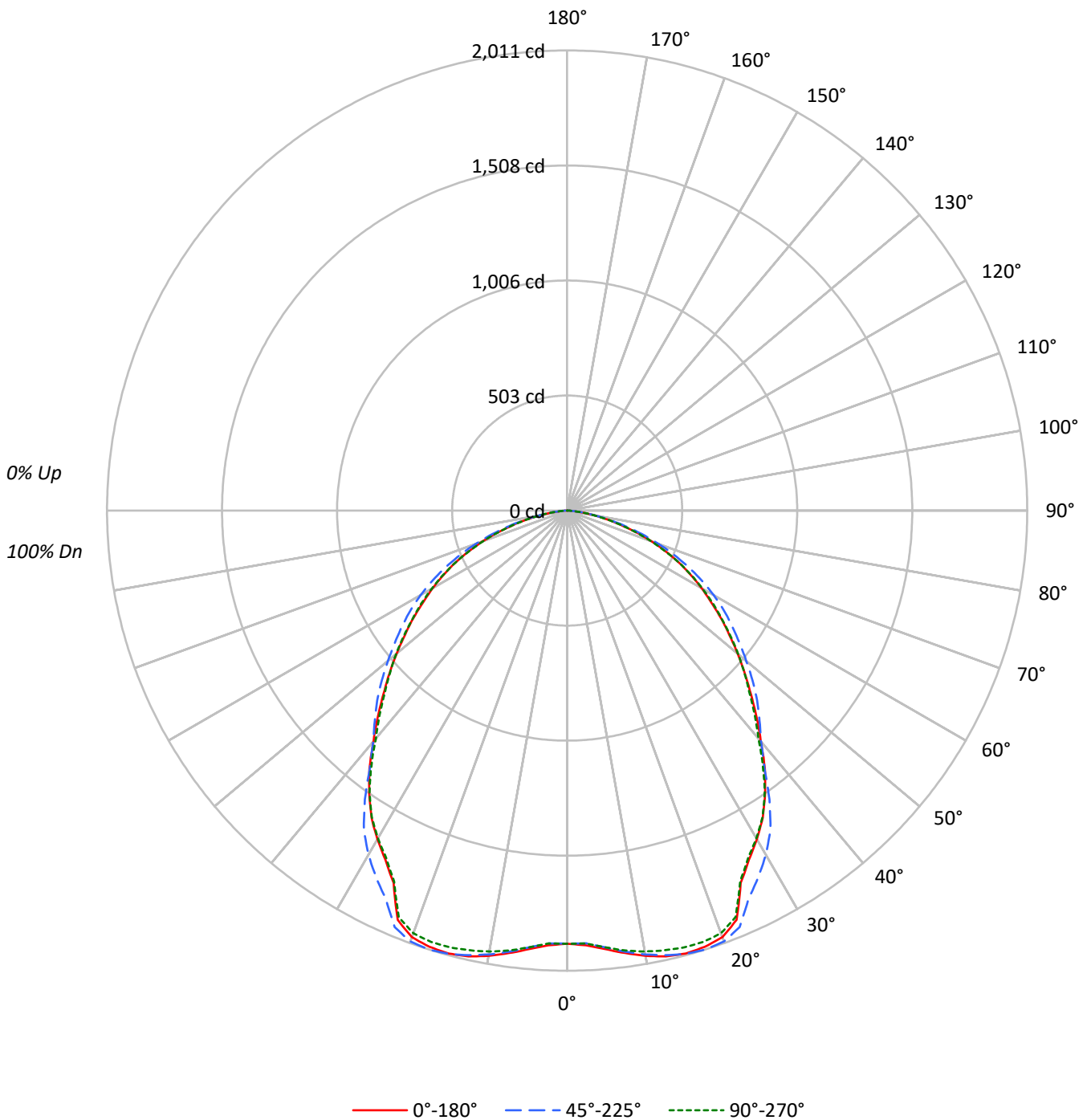
Input Watts (W): 44.68  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	20494	20494	20494
5°	20914	20832	20825
10°	21725	21658	21515
15°	22463	22479	22158
20°	22863	23090	22651
25°	21449	22386	21368
30°	20734	21714	20674
35°	19939	20371	19902
40°	18613	18623	18392
45°	17389	17983	17253
50°	16373	17210	16442
55°	15506	16612	15570
60°	14701	16016	14820
65°	13831	15018	13813
70°	12408	13399	12341
75°	10209	11008	10238
80°	7440	7945	7652
85°	4324	4572	4485



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	185.6	3.6
10°-20°	567.5	11.1
20°-30°	852.1	16.6
30°-40°	932.8	18.2
40°-50°	912.4	17.8
50°-60°	787.3	15.4
60°-70°	562.8	11.0
70°-80°	276.5	5.4
80°-90°	51.6	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°	1605.2	31.3
0°-40°	2538.0	49.5
0°-60°	4237.7	82.6
0°-90°	5128.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5128.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1893	1893	1893	1893	1893	
5°	1924	1940	1916	1932	1916	185
15°	2004	2031	2005	2007	1976	566
25°	1795	1902	1874	1889	1788	837
35°	1508	1485	1541	1467	1506	939
45°	1136	1211	1174	1198	1127	879
55°	821	896	880	887	825	735
65°	540	569	586	564	539	532
75°	244	258	263	253	245	262
85°	35	37	37	36	36	48
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°	1892.6	1892.6	1892.6	1892.6	1892.6	1892.6	1892.6	1892.6	1892.6	1892.6	1892.6
2.5°	1901.5	1917.2	1904.2	1901.5	1890.6	1916.5	1907.0	1909.0	1901.5	1902.9	1892.6
5°	1924.0	1940.4	1928.1	1924.7	1913.8	1940.4	1930.8	1932.2	1924.7	1926.7	1916.5
7.5°	1950.6	1967.6	1954.7	1952.6	1942.4	1969.0	1960.1	1961.5	1953.3	1954.7	1944.4
10°	1975.8	1994.2	1981.2	1979.9	1969.7	1998.3	1988.7	1990.1	1980.6	1981.2	1969.7
12.5°	1995.6	2014.6	2001.7	2001.7	1992.2	2019.4	2011.9	2013.3	2003.7	2003.7	1990.1
15°	2003.7	2023.5	2009.9	2011.9	2002.4	2031.0	2024.2	2024.9	2016.7	2018.7	2005.1
17.5°	1999.0	2018.7	2006.5	2007.8	1999.0	2028.3	2021.5	2024.2	2017.4	2022.8	2011.2
20°	1984.0	2001.7	1986.7	1988.1	1981.2	2010.6	2005.8	2010.6	2005.8	2014.0	2003.7
22.5°	1935.6	1951.9	1943.8	1952.6	1951.3	1982.6	1979.9	1984.0	1976.5	1980.6	1969.7
25°	1795.2	1816.3	1813.6	1838.8	1862.7	1901.5	1898.8	1900.1	1884.5	1885.8	1873.6
27.5°	1720.2	1737.9	1727.7	1729.1	1719.5	1741.3	1742.7	1776.8	1797.2	1815.6	1807.5
30°	1658.2	1671.8	1647.3	1630.3	1605.7	1627.5	1626.2	1656.2	1692.3	1735.2	1736.6
32.5°	1591.4	1595.5	1560.7	1537.6	1528.7	1551.9	1550.5	1559.4	1586.6	1633.0	1653.4
35°	1508.3	1511.7	1468.7	1461.9	1461.9	1485.1	1479.6	1482.4	1497.4	1527.3	1541.0
37.5°	1419.0	1414.2	1389.7	1391.0	1396.5	1417.6	1413.5	1413.5	1418.3	1431.9	1414.9
40°	1316.7	1322.2	1314.7	1321.5	1326.3	1346.7	1344.7	1346.1	1344.0	1336.5	1317.4
42.5°	1226.1	1239.7	1247.9	1256.1	1256.8	1276.5	1275.2	1280.6	1270.4	1250.6	1244.5
45°	1135.5	1151.8	1174.3	1190.7	1192.0	1211.1	1211.1	1212.5	1191.3	1177.0	1174.3
47.5°	1053.7	1070.7	1093.9	1118.4	1122.5	1142.3	1142.3	1138.9	1116.4	1107.5	1098.6
50°	971.9	993.7	1015.5	1044.8	1046.9	1061.8	1062.5	1059.1	1048.9	1038.0	1021.6
52.5°	894.2	920.8	941.9	965.7	967.1	979.4	976.7	979.4	980.7	968.5	948.7
55°	821.3	848.5	866.9	884.0	887.4	895.5	890.1	899.0	907.1	896.2	879.9
57.5°	746.3	775.6	791.3	802.9	805.6	812.4	806.9	818.5	829.4	822.6	811.7
60°	678.8	702.0	712.9	723.8	724.5	731.3	726.5	738.1	750.4	747.0	739.5
62.5°	609.3	625.7	633.8	645.4	642.0	648.8	650.9	661.1	670.0	670.6	664.5
65°	539.8	548.6	555.5	562.3	563.6	569.1	571.1	575.2	588.9	590.2	586.1
67.5°	466.2	471.6	477.8	483.9	483.2	488.7	494.1	498.2	507.1	510.5	505.0
70°	391.9	398.7	402.1	404.8	404.2	409.6	414.4	417.8	426.0	428.0	423.2
72.5°	316.9	323.7	326.5	327.1	326.5	332.6	336.7	338.7	345.5	349.0	341.5
75°	244.0	252.9	254.2	252.9	252.2	257.6	259.7	263.1	267.8	268.5	263.1
77.5°	177.9	185.4	186.7	184.7	183.3	187.4	188.8	192.2	194.9	196.3	190.8
80°	119.3	126.8	126.1	125.4	123.4	126.1	128.1	129.5	131.5	131.5	127.4
82.5°	71.6	76.3	75.7	76.3	74.3	75.0	76.3	78.4	77.7	79.1	76.3
85°	34.8	36.8	36.8	36.8	36.1	36.8	37.5	38.8	37.5	38.8	36.8
87.5°	12.3	12.9	12.3	12.3	12.3	12.3	12.9	12.9	12.3	12.9	12.3
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°	1892.6	1892.6	1892.6	1892.6	1892.6	1892.6	1892.6	1892.6	1892.6	1892.6
2.5°	1907.0	1896.1	1907.0	1902.2	1908.3	1906.3	1907.0	1914.5	1897.4	1893.3
5°	1930.8	1919.2	1930.1	1926.7	1931.5	1929.5	1930.8	1938.3	1920.6	1915.8
7.5°	1958.1	1945.8	1956.7	1951.9	1956.7	1954.7	1955.4	1961.5	1943.1	1939.0
10°	1983.3	1970.3	1979.9	1975.1	1977.8	1975.8	1977.2	1981.2	1961.5	1956.7
12.5°	2003.1	1990.1	1999.7	1994.2	1995.6	1992.8	1992.2	1994.2	1973.8	1968.3
15°	2019.4	2006.5	2013.3	2007.8	2007.1	2003.1	2001.7	2002.4	1981.9	1976.5
17.5°	2024.2	2009.2	2013.3	2007.1	2005.1	2001.7	2000.3	2001.7	1981.9	1976.5
20°	2014.6	1996.9	1999.0	1991.5	1988.7	1986.0	1986.0	1988.1	1969.0	1965.6
22.5°	1981.9	1966.9	1971.7	1966.9	1964.2	1961.5	1956.7	1951.9	1927.4	1922.6
25°	1886.5	1876.3	1894.0	1896.7	1889.2	1874.9	1848.3	1827.9	1792.5	1788.4
27.5°	1816.3	1795.2	1774.1	1747.5	1731.8	1725.7	1729.8	1737.3	1718.9	1712.0
30°	1737.9	1692.3	1651.4	1624.1	1613.9	1612.5	1628.9	1648.7	1652.1	1653.4
32.5°	1640.5	1582.5	1551.2	1542.3	1535.5	1533.5	1538.9	1561.4	1575.7	1588.7
35°	1530.1	1489.9	1473.5	1474.2	1467.4	1464.6	1461.2	1474.9	1489.9	1505.5
37.5°	1427.2	1409.4	1404.7	1407.4	1399.9	1395.8	1391.7	1395.1	1399.9	1405.3
40°	1330.4	1334.5	1337.2	1339.2	1329.7	1327.0	1323.6	1322.2	1314.0	1301.1
42.5°	1247.9	1258.8	1271.1	1271.1	1260.9	1259.5	1260.2	1256.1	1231.6	1213.8
45°	1177.0	1181.1	1202.2	1206.3	1197.5	1195.4	1196.1	1183.2	1144.3	1126.6
47.5°	1107.5	1109.6	1128.6	1138.2	1128.6	1126.6	1128.6	1101.4	1059.1	1050.3
50°	1037.3	1042.8	1050.9	1059.8	1050.9	1050.3	1048.2	1022.3	980.7	976.0
52.5°	966.4	977.3	973.2	975.3	969.8	970.5	972.6	946.0	907.8	899.6
55°	894.2	904.4	894.2	888.7	886.7	888.7	892.8	868.3	838.3	824.7
57.5°	822.6	828.8	817.9	806.9	803.5	808.3	811.7	791.3	765.4	755.2
60°	748.3	747.0	738.1	727.9	721.1	726.5	732.0	713.6	690.4	684.3
62.5°	670.0	668.6	657.7	648.8	642.0	646.1	651.6	633.8	618.2	612.7
65°	589.5	588.2	576.6	569.8	563.6	565.0	571.1	554.8	545.2	539.1
67.5°	511.8	507.1	495.5	491.4	483.9	486.6	490.7	477.8	468.9	463.5
70°	430.1	426.0	415.7	411.7	405.5	406.9	411.0	402.8	393.3	389.8
72.5°	346.9	346.2	336.7	331.2	327.8	328.5	331.9	327.8	319.0	316.2
75°	266.5	268.5	261.0	256.3	252.9	252.9	256.9	257.6	248.1	244.7
77.5°	196.3	196.3	190.2	190.8	185.4	185.4	188.1	190.8	180.6	178.6
80°	131.5	130.9	128.8	126.8	124.0	124.7	126.8	130.2	122.0	122.7
82.5°	77.7	77.7	77.7	76.3	74.3	73.6	76.3	79.1	73.6	73.6
85°	38.2	37.5	37.5	37.5	36.1	35.4	37.5	38.8	35.4	36.1
87.5°	12.9	12.3	12.3	12.9	12.3	12.3	12.3	12.3	11.6	12.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)