

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: P183637

Luminaire Tested: **LSM55M9040D010TEP**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P183637
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: LSM55M9040D010TEP
Description: PORTFOLIO SURFACE MOUNT LED LUMINAIRE, MEDIUM DISTRIBUTION WITH CLEAR GLASS LENS
Light Source: 90 CRI, 4000K CCT LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

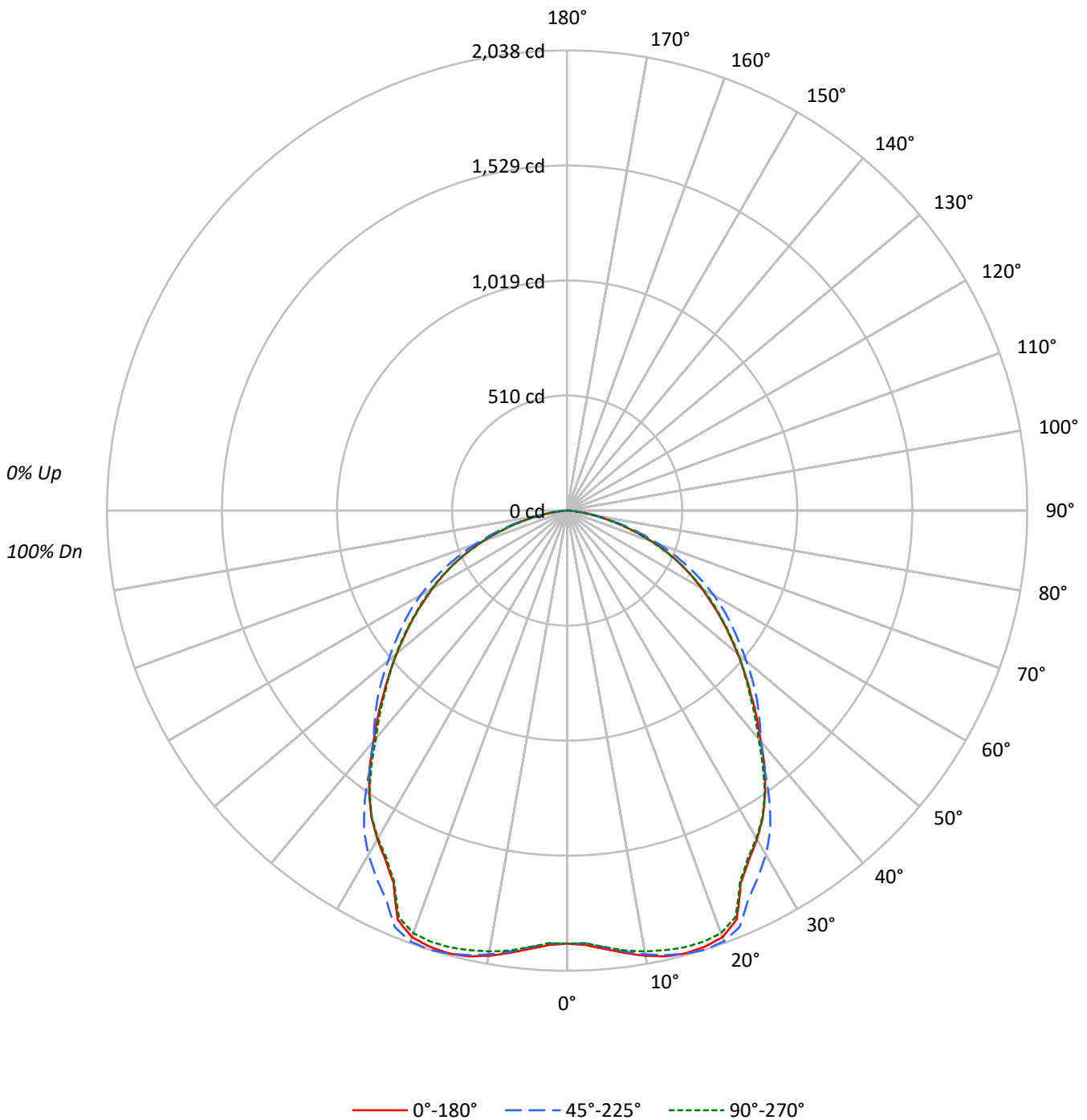
Lumens per Lamp: N/A
Luminaire Lumens: 5196.2 lumens
Efficiency: N/A
Efficacy: 92.4 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.28 / 1.33
Luminous Opening: Circular (Dia: 1.12' x H: 0')
CIE Type: Direct

Input Watts (W): 56.22
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°	20765	20765	20765
5°	21190	21107	21100
10°	22012	21943	21799
15°	22760	22774	22449
20°	23164	23395	22949
25°	21732	22681	21650
30°	21008	22001	20946
35°	20201	20639	20165
40°	18859	18869	18634
45°	17617	18221	17481
50°	16589	17438	16658
55°	15709	16831	15774
60°	14896	16226	15015
65°	14013	15217	13995
70°	12573	13576	12506
75°	10343	11150	10372
80°	7533	8051	7751
85°	4373	4634	4547



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.1	3.6
10°-20°	575.0	11.1
20°-30°	863.4	16.6
30°-40°	945.1	18.2
40°-50°	924.5	17.8
50°-60°	797.7	15.4
60°-70°	570.3	11.0
70°-80°	280.1	5.4
80°-90°	52.2	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°	1626.4	31.3
0°-40°	2571.4	49.5
0°-60°	4293.6	82.6
0°-90°	5196.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5196.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1918	1918	1918	1918	1918	
5°	1949	1966	1942	1957	1941	188
15°	2030	2058	2032	2034	2002	573
25°	1819	1927	1898	1914	1812	848
35°	1528	1505	1561	1487	1525	951
45°	1150	1227	1190	1213	1142	891
55°	832	907	892	898	836	744
65°	547	577	594	571	546	539
75°	247	261	266	256	248	265
85°	35	37	37	37	37	49
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°	1917.6	1917.6	1917.6	1917.6	1917.6	1917.6	1917.6	1917.6	1917.6	1917.6	1917.6
2.5°	1926.6	1942.5	1929.3	1926.6	1915.5	1941.8	1932.1	1934.2	1926.6	1928.0	1917.6
5°	1949.4	1965.9	1953.5	1950.1	1939.0	1965.9	1956.3	1957.7	1950.1	1952.1	1941.8
7.5°	1976.3	1993.6	1980.4	1978.4	1968.0	1994.9	1986.0	1987.4	1979.1	1980.4	1970.1
10°	2001.9	2020.5	2007.4	2006.0	1995.6	2024.6	2015.0	2016.4	2006.7	2007.4	1995.6
12.5°	2021.9	2041.2	2028.1	2028.1	2018.4	2046.0	2038.5	2039.8	2030.2	2030.2	2016.4
15°	2030.2	2050.2	2036.4	2038.5	2028.8	2057.8	2050.9	2051.6	2043.3	2045.4	2031.5
17.5°	2025.3	2045.4	2032.9	2034.3	2025.3	2055.0	2048.1	2050.9	2044.0	2049.5	2037.8
20°	2010.1	2028.1	2012.9	2014.3	2007.4	2037.1	2032.2	2037.1	2032.2	2040.5	2030.2
22.5°	1961.1	1977.7	1969.4	1978.4	1977.0	2008.8	2006.0	2010.1	2002.5	2006.7	1995.6
25°	1818.9	1840.3	1837.5	1863.1	1887.2	1926.6	1923.8	1925.2	1909.3	1910.7	1898.3
27.5°	1742.9	1760.9	1750.5	1751.9	1742.2	1764.3	1765.7	1800.2	1820.9	1839.6	1831.3
30°	1680.1	1693.9	1669.0	1651.8	1626.9	1649.0	1647.6	1678.0	1714.6	1758.1	1759.5
32.5°	1612.4	1616.5	1581.3	1557.8	1548.9	1572.3	1571.0	1579.9	1607.6	1654.5	1675.2
35°	1528.1	1531.6	1488.1	1481.2	1481.2	1504.7	1499.1	1501.9	1517.1	1547.5	1561.3
37.5°	1437.7	1432.9	1408.0	1409.4	1414.9	1436.3	1432.2	1432.2	1437.0	1450.8	1433.5
40°	1334.1	1339.6	1332.0	1338.9	1343.8	1364.5	1362.4	1363.8	1361.7	1354.1	1334.8
42.5°	1242.3	1256.1	1264.4	1272.7	1273.3	1293.4	1292.0	1297.5	1287.2	1267.1	1260.9
45°	1150.4	1167.0	1189.8	1206.4	1207.7	1227.1	1227.1	1228.5	1207.1	1192.6	1189.8
47.5°	1067.6	1084.8	1108.3	1133.2	1137.3	1157.3	1157.3	1153.9	1131.1	1122.1	1113.1
50°	984.7	1006.8	1028.9	1058.6	1060.7	1075.9	1076.5	1073.1	1062.7	1051.7	1035.1
52.5°	906.0	932.9	954.3	978.5	979.9	992.3	989.5	992.3	993.7	981.2	961.2
55°	832.1	859.7	878.4	895.6	899.1	907.4	901.8	910.8	919.1	908.1	891.5
57.5°	756.1	785.8	801.7	813.4	816.2	823.1	817.6	829.3	840.4	833.5	822.4
60°	687.8	711.2	722.3	733.3	734.0	740.9	736.1	747.8	760.3	756.8	749.2
62.5°	617.3	633.9	642.2	653.9	650.5	657.4	659.5	669.8	678.8	679.5	673.3
65°	546.9	555.9	562.8	569.7	571.1	576.6	578.7	582.8	596.6	598.0	593.9
67.5°	472.3	477.8	484.1	490.3	489.6	495.1	500.6	504.8	513.8	517.2	511.7
70°	397.1	404.0	407.4	410.2	409.5	415.0	419.8	423.3	431.6	433.7	428.8
72.5°	321.1	328.0	330.8	331.5	330.8	337.0	341.1	343.2	350.1	353.6	346.0
75°	247.2	256.2	257.6	256.2	255.5	261.0	263.1	266.5	271.4	272.1	266.5
77.5°	180.2	187.8	189.2	187.1	185.8	189.9	191.3	194.7	197.5	198.9	193.3
80°	120.8	128.4	127.7	127.1	125.0	127.7	129.8	131.2	133.3	133.3	129.1
82.5°	72.5	77.3	76.6	77.3	75.3	76.0	77.3	79.4	78.7	80.1	77.3
85°	35.2	37.3	37.3	37.3	36.6	37.3	38.0	39.4	38.0	39.4	37.3
87.5°	12.4	13.1	12.4	12.4	12.4	12.4	13.1	13.1	12.4	13.1	12.4
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°	1917.6	1917.6	1917.6	1917.6	1917.6	1917.6	1917.6	1917.6	1917.6	1917.6
2.5°	1932.1	1921.1	1932.1	1927.3	1933.5	1931.4	1932.1	1939.7	1922.4	1918.3
5°	1956.3	1944.5	1955.6	1952.1	1957.0	1954.9	1956.3	1963.9	1945.9	1941.1
7.5°	1983.9	1971.5	1982.5	1977.7	1982.5	1980.4	1981.1	1987.4	1968.7	1964.6
10°	2009.5	1996.3	2006.0	2001.2	2003.9	2001.9	2003.2	2007.4	1987.4	1982.5
12.5°	2029.5	2016.4	2026.0	2020.5	2021.9	2019.1	2018.4	2020.5	1999.8	1994.3
15°	2046.0	2032.9	2039.8	2034.3	2033.6	2029.5	2028.1	2028.8	2008.1	2002.5
17.5°	2050.9	2035.7	2039.8	2033.6	2031.5	2028.1	2026.7	2028.1	2008.1	2002.5
20°	2041.2	2023.3	2025.3	2017.7	2015.0	2012.2	2012.2	2014.3	1994.9	1991.5
22.5°	2008.1	1992.9	1997.7	1992.9	1990.1	1987.4	1982.5	1977.7	1952.8	1948.0
25°	1911.4	1901.0	1919.0	1921.8	1914.2	1899.7	1872.7	1852.0	1816.1	1812.0
27.5°	1840.3	1818.9	1797.5	1770.5	1754.6	1748.4	1752.6	1760.2	1741.5	1734.6
30°	1760.9	1714.6	1673.2	1645.5	1635.2	1633.8	1650.4	1670.4	1673.9	1675.2
32.5°	1662.1	1603.4	1571.7	1562.7	1555.8	1553.7	1559.2	1582.0	1596.5	1609.6
35°	1550.2	1509.5	1492.9	1493.6	1486.7	1484.0	1480.5	1494.3	1509.5	1525.4
37.5°	1446.0	1428.0	1423.2	1426.0	1418.4	1414.2	1410.1	1413.5	1418.4	1423.9
40°	1347.9	1352.1	1354.8	1356.9	1347.2	1344.5	1341.0	1339.6	1331.3	1318.2
42.5°	1264.4	1275.4	1287.8	1287.8	1277.5	1276.1	1276.8	1272.7	1247.8	1229.8
45°	1192.6	1196.7	1218.1	1222.2	1213.3	1211.2	1211.9	1198.8	1159.4	1141.5
47.5°	1122.1	1124.2	1143.5	1153.2	1143.5	1141.5	1143.5	1115.9	1073.1	1064.1
50°	1051.0	1056.5	1064.8	1073.8	1064.8	1064.1	1062.0	1035.8	993.7	988.8
52.5°	979.2	990.2	986.1	988.2	982.6	983.3	985.4	958.5	919.8	911.5
55°	906.0	916.3	906.0	900.5	898.4	900.5	904.6	879.7	849.4	835.5
57.5°	833.5	839.7	828.6	817.6	814.1	819.0	822.4	801.7	775.5	765.1
60°	758.2	756.8	747.8	737.5	730.6	736.1	741.6	723.0	699.5	693.3
62.5°	678.8	677.4	666.4	657.4	650.5	654.6	660.1	642.2	626.3	620.8
65°	597.3	595.9	584.2	577.3	571.1	572.5	578.7	562.1	552.4	546.2
67.5°	518.6	513.8	502.0	497.9	490.3	493.0	497.2	484.1	475.1	469.6
70°	435.7	431.6	421.2	417.1	410.9	412.2	416.4	408.1	398.4	395.0
72.5°	351.5	350.8	341.1	335.6	332.1	332.8	336.3	332.1	323.2	320.4
75°	270.0	272.1	264.5	259.6	256.2	256.2	260.3	261.0	251.4	247.9
77.5°	198.9	198.9	192.7	193.3	187.8	187.8	190.6	193.3	183.0	180.9
80°	133.3	132.6	130.5	128.4	125.7	126.4	128.4	131.9	123.6	124.3
82.5°	78.7	78.7	78.7	77.3	75.3	74.6	77.3	80.1	74.6	74.6
85°	38.7	38.0	38.0	38.0	36.6	35.9	38.0	39.4	35.9	36.6
87.5°	13.1	12.4	12.4	13.1	12.4	12.4	12.4	12.4	11.7	12.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)