

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: P183634

Luminaire Tested: **LSM80M9035D010TEP**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P183634
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: LSM80M9035D010TEP
Description: PORTFOLIO SURFACE MOUNT LED LUMINAIRE, MEDIUM DISTRIBUTION WITH CLEAR GLASS LENS
Light Source: 90 CRI, 3500K CCT LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6892.5 lumens
Efficiency: N/A
Efficacy: 78.3 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

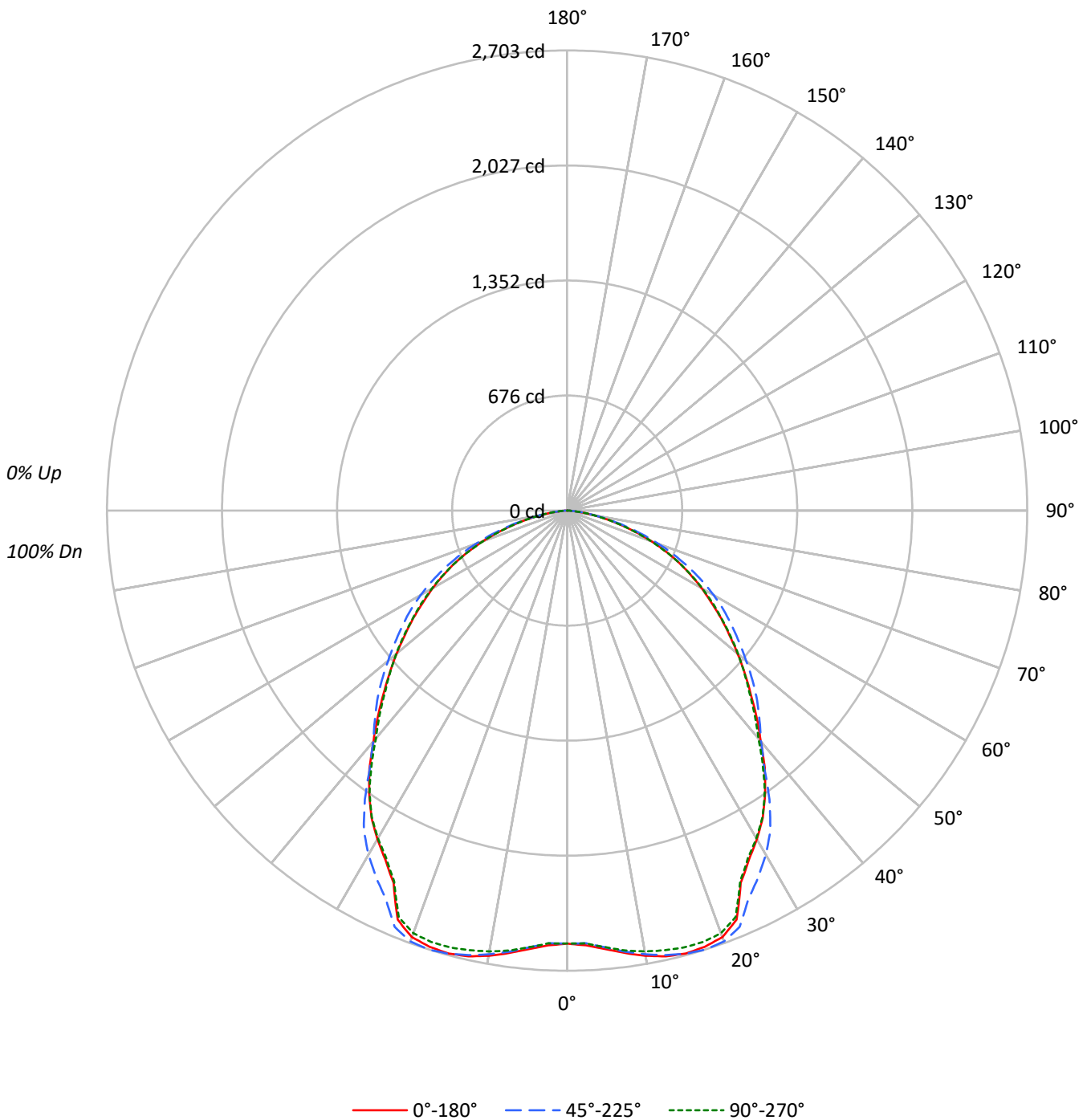
Input Watts (W): 88.06
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	27544	27544	27544
5°	28107	27998	27987
10°	29197	29107	28915
15°	30189	30209	29779
20°	30725	31032	30441
25°	28826	30084	28717
30°	27865	29182	27785
35°	26796	27377	26747
40°	25015	25027	24718
45°	23369	24169	23187
50°	22003	23130	22096
55°	20837	22325	20924
60°	19758	21523	19916
65°	18587	20183	18564
70°	16676	18009	16587
75°	13719	14794	13757
80°	9996	10682	10283
85°	5802	6150	6026



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	249.5	3.6
10°-20°	762.6	11.1
20°-30°	1145.2	16.6
30°-40°	1253.6	18.2
40°-50°	1226.2	17.8
50°-60°	1058.1	15.4
60°-70°	756.4	11.0
70°-80°	371.6	5.4
80°-90°	69.3	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°	2157.3	31.3
0°-40°	3410.9	49.5
0°-60°	5695.2	82.6
0°-90°	6892.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6892.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2544	2544	2544	2544	2544	
5°	2586	2608	2576	2596	2575	249
15°	2693	2730	2695	2698	2656	760
25°	2413	2556	2518	2539	2404	1124
35°	2027	1996	2071	1972	2023	1262
45°	1526	1628	1578	1609	1514	1182
55°	1104	1204	1182	1192	1108	987
65°	725	765	788	758	724	715
75°	328	346	354	340	329	352
85°	47	50	50	48	48	65
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°	2543.6	2543.6	2543.6	2543.6	2543.6	2543.6	2543.6	2543.6	2543.6	2543.6	2543.6
2.5°	2555.5	2576.6	2559.2	2555.5	2540.8	2575.7	2562.8	2565.6	2555.5	2557.3	2543.6
5°	2585.7	2607.7	2591.2	2586.6	2572.0	2607.7	2594.9	2596.7	2586.6	2589.4	2575.7
7.5°	2621.5	2644.4	2626.9	2624.2	2610.5	2646.2	2634.3	2636.1	2625.1	2626.9	2613.2
10°	2655.3	2680.1	2662.7	2660.8	2647.1	2685.6	2672.7	2674.6	2661.8	2662.7	2647.1
12.5°	2681.9	2707.6	2690.1	2690.1	2677.3	2714.0	2703.9	2705.7	2692.9	2692.9	2674.6
15°	2692.9	2719.5	2701.1	2703.9	2691.1	2729.5	2720.4	2721.3	2710.3	2713.0	2694.7
17.5°	2686.5	2713.0	2696.6	2698.4	2686.5	2725.9	2716.7	2720.4	2711.2	2718.5	2703.0
20°	2666.3	2690.1	2670.0	2671.8	2662.7	2702.1	2695.6	2702.1	2695.6	2706.6	2692.9
22.5°	2601.3	2623.3	2612.3	2624.2	2622.4	2664.5	2660.8	2666.3	2656.3	2661.8	2647.1
25°	2412.6	2441.0	2437.3	2471.2	2503.3	2555.5	2551.8	2553.7	2532.6	2534.4	2517.9
27.5°	2311.9	2335.7	2321.9	2323.8	2310.9	2340.3	2342.1	2387.9	2415.4	2440.1	2429.1
30°	2228.5	2246.8	2213.9	2191.0	2158.0	2187.3	2185.5	2225.8	2274.3	2332.0	2333.8
32.5°	2138.7	2144.2	2097.5	2066.4	2054.5	2085.6	2083.8	2095.7	2132.3	2194.6	2222.1
35°	2027.0	2031.6	1973.9	1964.7	1964.7	1995.9	1988.5	1992.2	2012.3	2052.6	2071.0
37.5°	1907.0	1900.6	1867.6	1869.5	1876.8	1905.2	1899.7	1899.7	1906.1	1924.4	1901.5
40°	1769.6	1776.9	1766.9	1776.0	1782.4	1809.9	1807.2	1809.0	1806.3	1796.2	1770.5
42.5°	1647.8	1666.1	1677.1	1688.1	1689.0	1715.6	1713.7	1721.1	1707.3	1680.8	1672.5
45°	1526.0	1548.0	1578.2	1600.2	1602.0	1627.6	1627.6	1629.5	1601.1	1581.8	1578.2
47.5°	1416.1	1439.0	1470.1	1503.1	1508.6	1535.1	1535.1	1530.6	1500.3	1488.4	1476.5
50°	1306.1	1335.5	1364.8	1404.2	1406.9	1427.1	1428.0	1423.4	1409.6	1395.0	1373.0
52.5°	1201.7	1237.4	1265.8	1297.9	1299.7	1316.2	1312.6	1316.2	1318.1	1301.6	1275.0
55°	1103.7	1140.4	1165.1	1188.0	1192.6	1203.6	1196.2	1208.1	1219.1	1204.5	1182.5
57.5°	1003.0	1042.4	1063.4	1079.0	1082.7	1091.8	1084.5	1100.1	1114.7	1105.6	1090.9
60°	912.3	943.4	958.1	972.7	973.7	982.8	976.4	992.0	1008.5	1003.9	993.8
62.5°	818.9	840.8	851.8	867.4	862.8	872.0	874.7	888.5	900.4	901.3	893.1
65°	725.4	737.3	746.5	755.7	757.5	764.8	767.6	773.1	791.4	793.2	787.7
67.5°	626.5	633.8	642.1	650.3	649.4	656.7	664.1	669.6	681.5	686.0	678.7
70°	526.7	535.8	540.4	544.1	543.2	550.5	556.9	561.5	572.5	575.2	568.8
72.5°	425.9	435.1	438.7	439.7	438.7	447.0	452.5	455.2	464.4	469.0	458.9
75°	327.9	339.8	341.6	339.8	338.9	346.2	349.0	353.6	360.0	360.9	353.6
77.5°	239.1	249.1	251.0	248.2	246.4	251.9	253.7	258.3	262.0	263.8	256.5
80°	160.3	170.4	169.5	168.5	165.8	169.5	172.2	174.0	176.8	176.8	171.3
82.5°	96.2	102.6	101.7	102.6	99.8	100.8	102.6	105.3	104.4	106.3	102.6
85°	46.7	49.5	49.5	49.5	48.5	49.5	50.4	52.2	50.4	52.2	49.5
87.5°	16.5	17.4	16.5	16.5	16.5	16.5	17.4	17.4	16.5	17.4	16.5
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°	2543.6	2543.6	2543.6	2543.6	2543.6	2543.6	2543.6	2543.6	2543.6	2543.6
2.5°	2562.8	2548.2	2562.8	2556.4	2564.7	2561.9	2562.8	2572.9	2550.0	2544.5
5°	2594.9	2579.3	2594.0	2589.4	2595.8	2593.1	2594.9	2605.0	2581.1	2574.7
7.5°	2631.5	2615.0	2629.7	2623.3	2629.7	2626.9	2627.9	2636.1	2611.4	2605.9
10°	2665.4	2648.0	2660.8	2654.4	2658.1	2655.3	2657.2	2662.7	2636.1	2629.7
12.5°	2692.0	2674.6	2687.4	2680.1	2681.9	2678.2	2677.3	2680.1	2652.6	2645.3
15°	2714.0	2696.6	2705.7	2698.4	2697.5	2692.0	2690.1	2691.1	2663.6	2656.3
17.5°	2720.4	2700.2	2705.7	2697.5	2694.7	2690.1	2688.3	2690.1	2663.6	2656.3
20°	2707.6	2683.7	2686.5	2676.4	2672.7	2669.1	2669.1	2671.8	2646.2	2641.6
22.5°	2663.6	2643.4	2649.8	2643.4	2639.8	2636.1	2629.7	2623.3	2590.3	2583.9
25°	2535.4	2521.6	2545.4	2549.1	2539.0	2519.8	2484.1	2456.6	2409.0	2403.5
27.5°	2441.0	2412.6	2384.2	2348.5	2327.4	2319.2	2324.7	2334.8	2310.0	2300.9
30°	2335.7	2274.3	2219.3	2182.7	2169.0	2167.1	2189.1	2215.7	2220.3	2222.1
32.5°	2204.7	2126.8	2084.7	2072.8	2063.6	2060.9	2068.2	2098.4	2117.7	2135.1
35°	2056.3	2002.3	1980.3	1981.2	1972.0	1968.4	1963.8	1982.1	2002.3	2023.3
37.5°	1918.0	1894.2	1887.8	1891.4	1881.4	1875.9	1870.4	1875.0	1881.4	1888.7
40°	1787.9	1793.4	1797.1	1799.8	1787.0	1783.4	1778.8	1776.9	1766.0	1748.6
42.5°	1677.1	1691.8	1708.2	1708.2	1694.5	1692.7	1693.6	1688.1	1655.1	1631.3
45°	1581.8	1587.3	1615.7	1621.2	1609.3	1606.6	1607.5	1590.1	1537.9	1514.1
47.5°	1488.4	1491.2	1516.8	1529.6	1516.8	1514.1	1516.8	1480.2	1423.4	1411.5
50°	1394.1	1401.4	1412.4	1424.3	1412.4	1411.5	1408.7	1373.9	1318.1	1311.6
52.5°	1298.8	1313.5	1308.0	1310.7	1303.4	1304.3	1307.1	1271.3	1220.0	1209.1
55°	1201.7	1215.5	1201.7	1194.4	1191.7	1194.4	1199.9	1166.9	1126.6	1108.3
57.5°	1105.6	1113.8	1099.1	1084.5	1079.9	1086.3	1090.9	1063.4	1028.6	1014.9
60°	1005.7	1003.9	992.0	978.2	969.1	976.4	983.7	959.0	927.9	919.6
62.5°	900.4	898.5	883.9	872.0	862.8	868.3	875.6	851.8	830.8	823.4
65°	792.3	790.5	774.9	765.7	757.5	759.3	767.6	745.6	732.8	724.5
67.5°	687.9	681.5	665.9	660.4	650.3	654.0	659.5	642.1	630.2	622.8
70°	578.0	572.5	558.7	553.2	545.0	546.8	552.3	541.3	528.5	523.9
72.5°	466.2	465.3	452.5	445.2	440.6	441.5	446.1	440.6	428.7	425.0
75°	358.1	360.9	350.8	344.4	339.8	339.8	345.3	346.2	333.4	328.8
77.5°	263.8	263.8	255.6	256.5	249.1	249.1	252.8	256.5	242.7	240.0
80°	176.8	175.9	173.1	170.4	166.7	167.6	170.4	174.9	164.0	164.9
82.5°	104.4	104.4	104.4	102.6	99.8	98.9	102.6	106.3	98.9	98.9
85°	51.3	50.4	50.4	50.4	48.5	47.6	50.4	52.2	47.6	48.5
87.5°	17.4	16.5	16.5	17.4	16.5	16.5	16.5	16.5	15.6	16.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)