

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: P183639

Luminaire Tested: **LSM80M9040D010TEP**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P183639
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: LSM80M9040D010TEP
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: 7117.0 lumens
Efficiency: N/A
Efficacy: 80.8 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

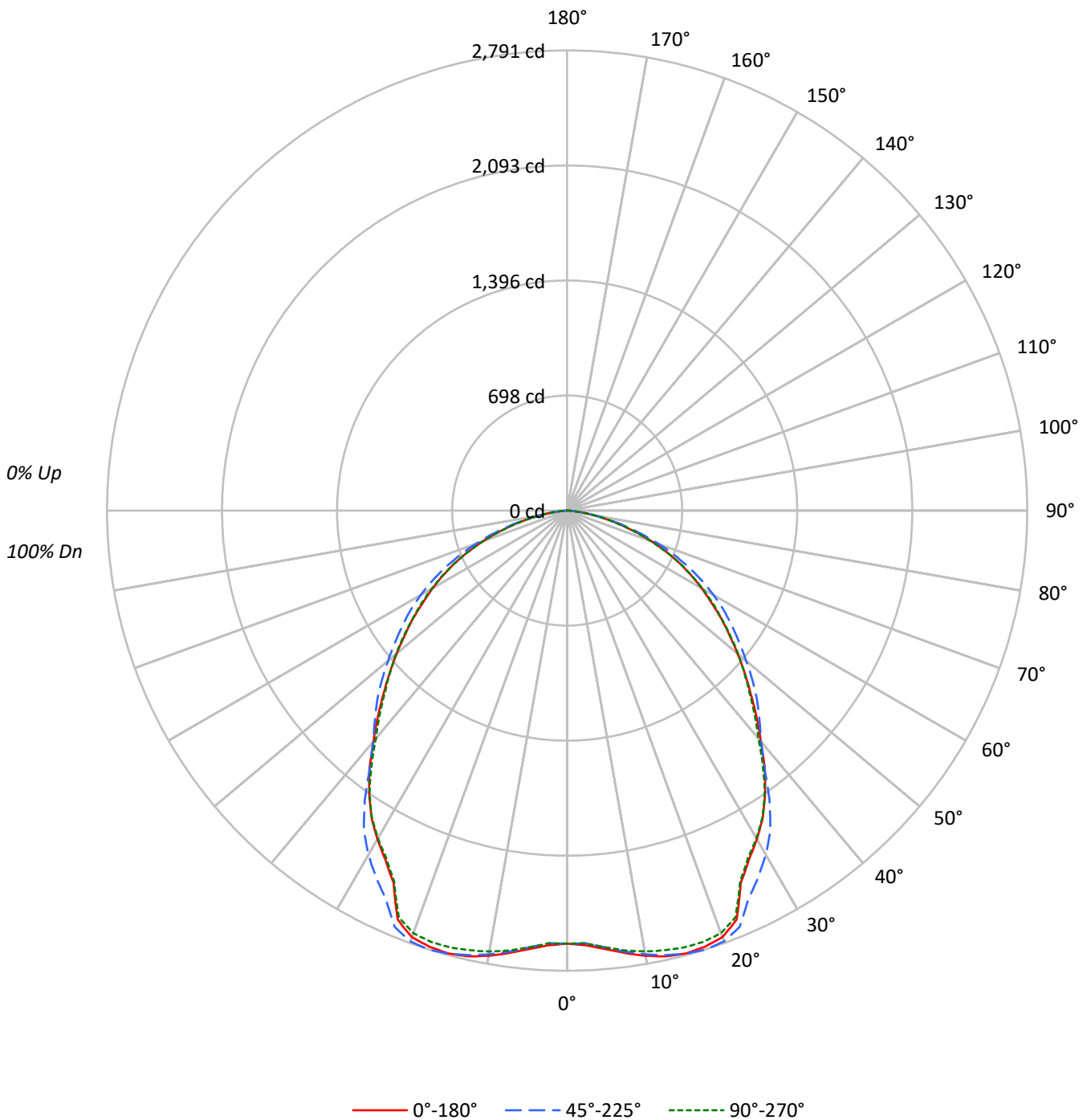
Input Watts (W): 88.06
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	28442	28442	28442
5°	29023	28910	28899
10°	30149	30055	29858
15°	31172	31194	30749
20°	31727	32043	31433
25°	29765	31065	29653
30°	28773	30133	28690
35°	27668	28268	27619
40°	25830	25843	25522
45°	24130	24956	23942
50°	22721	23883	22817
55°	21517	23052	21605
60°	20401	22225	20566
65°	19194	20842	19168
70°	17217	18594	17129
75°	14167	15275	14204
80°	10321	11031	10614
85°	5989	6349	6225



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.6	3.6
10°-20°	787.5	11.1
20°-30°	1182.5	16.6
30°-40°	1294.4	18.2
40°-50°	1266.2	17.8
50°-60°	1092.6	15.4
60°-70°	781.1	11.0
70°-80°	383.7	5.4
80°-90°	71.5	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°	2227.6	31.3
0°-40°	3522.0	49.5
0°-60°	5880.7	82.6
0°-90°	7117.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7117.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2626	2626	2626	2626	2626	
5°	2670	2693	2660	2680	2659	257
15°	2781	2818	2782	2785	2743	785
25°	2491	2639	2600	2622	2482	1161
35°	2093	2061	2138	2036	2089	1303
45°	1576	1681	1630	1662	1563	1220
55°	1140	1243	1221	1230	1144	1020
65°	749	790	813	782	748	738
75°	339	358	365	351	340	363
85°	48	51	51	50	50	67
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°	2626.5	2626.5	2626.5	2626.5	2626.5	2626.5	2626.5	2626.5	2626.5	2626.5	2626.5
2.5°	2638.8	2660.5	2642.5	2638.8	2623.6	2659.6	2646.3	2649.2	2638.8	2640.7	2626.5
5°	2670.0	2692.7	2675.6	2670.9	2655.8	2692.7	2679.4	2681.3	2670.9	2673.8	2659.6
7.5°	2706.9	2730.5	2712.5	2709.7	2695.5	2732.4	2720.1	2722.0	2710.6	2712.5	2698.3
10°	2741.9	2767.4	2749.4	2747.5	2733.3	2773.1	2759.8	2761.7	2748.5	2749.4	2733.3
12.5°	2769.3	2795.8	2777.8	2777.8	2764.5	2802.4	2792.0	2793.9	2780.6	2780.6	2761.7
15°	2780.6	2808.1	2789.1	2792.0	2778.7	2818.5	2809.0	2809.9	2798.6	2801.4	2782.5
17.5°	2774.0	2801.4	2784.4	2786.3	2774.0	2814.7	2805.2	2809.0	2799.5	2807.1	2791.0
20°	2753.2	2777.8	2757.0	2758.9	2749.4	2790.1	2783.5	2790.1	2783.5	2794.8	2780.6
22.5°	2686.0	2708.7	2697.4	2709.7	2707.8	2751.3	2747.5	2753.2	2742.8	2748.5	2733.3
25°	2491.2	2520.5	2516.8	2551.7	2584.8	2638.8	2635.0	2636.9	2615.1	2617.0	2600.0
27.5°	2387.2	2411.8	2397.6	2399.5	2386.2	2416.5	2418.4	2465.7	2494.1	2519.6	2508.2
30°	2301.1	2320.0	2286.0	2262.3	2228.3	2258.6	2256.7	2298.3	2348.4	2408.0	2409.9
32.5°	2208.4	2214.1	2165.9	2133.7	2121.4	2153.6	2151.7	2164.0	2201.8	2266.1	2294.5
35°	2093.0	2097.8	2038.2	2028.7	2028.7	2060.9	2053.3	2057.1	2077.9	2119.5	2138.4
37.5°	1969.1	1962.5	1928.5	1930.4	1937.9	1967.2	1961.6	1961.6	1968.2	1987.1	1963.5
40°	1827.3	1834.8	1824.4	1833.9	1840.5	1868.9	1866.0	1867.9	1865.1	1854.7	1828.2
42.5°	1701.5	1720.4	1731.7	1743.1	1744.0	1771.5	1769.6	1777.1	1763.0	1735.5	1727.0
45°	1575.7	1598.4	1629.6	1652.3	1654.2	1680.7	1680.7	1682.6	1653.2	1633.4	1629.6
47.5°	1462.2	1485.8	1518.0	1552.0	1557.7	1585.1	1585.1	1580.4	1549.2	1536.9	1524.6
50°	1348.7	1379.0	1409.2	1449.9	1452.7	1473.5	1474.5	1469.8	1455.6	1440.4	1417.7
52.5°	1240.9	1277.8	1307.1	1340.2	1342.1	1359.1	1355.3	1359.1	1361.0	1344.0	1316.5
55°	1139.7	1177.5	1203.0	1226.7	1231.4	1242.8	1235.2	1247.5	1258.8	1243.7	1221.0
57.5°	1035.6	1076.3	1098.1	1114.1	1117.9	1127.4	1119.8	1135.9	1151.0	1141.6	1126.4
60°	942.0	974.2	989.3	1004.4	1005.4	1014.8	1008.2	1024.3	1041.3	1036.6	1026.2
62.5°	845.5	868.2	879.6	895.7	890.9	900.4	903.2	917.4	929.7	930.7	922.1
65°	749.1	761.4	770.8	780.3	782.2	789.7	792.6	798.2	817.2	819.1	813.4
67.5°	646.9	654.5	663.0	671.5	670.6	678.1	685.7	691.4	703.7	708.4	700.8
70°	543.8	553.3	558.0	561.8	560.9	568.4	575.0	579.8	591.1	594.0	587.3
72.5°	439.8	449.3	453.0	454.0	453.0	461.5	467.2	470.1	479.5	484.2	473.8
75°	338.6	350.9	352.8	350.9	349.9	357.5	360.3	365.1	371.7	372.6	365.1
77.5°	246.9	257.3	259.1	256.3	254.4	260.1	262.0	266.7	270.5	272.4	264.8
80°	165.5	175.9	175.0	174.0	171.2	175.0	177.8	179.7	182.5	182.5	176.9
82.5°	99.3	105.9	105.0	105.9	103.1	104.0	105.9	108.8	107.8	109.7	105.9
85°	48.2	51.1	51.1	51.1	50.1	51.1	52.0	53.9	52.0	53.9	51.1
87.5°	17.0	18.0	17.0	17.0	17.0	17.0	18.0	18.0	17.0	18.0	17.0
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°	2626.5	2626.5	2626.5	2626.5	2626.5	2626.5	2626.5	2626.5	2626.5	2626.5
2.5°	2646.3	2631.2	2646.3	2639.7	2648.2	2645.4	2646.3	2656.7	2633.1	2627.4
5°	2679.4	2663.3	2678.5	2673.8	2680.4	2677.5	2679.4	2689.8	2665.2	2658.6
7.5°	2717.3	2700.2	2715.4	2708.7	2715.4	2712.5	2713.5	2722.0	2696.5	2690.8
10°	2752.3	2734.3	2747.5	2740.9	2744.7	2741.9	2743.7	2749.4	2722.0	2715.4
12.5°	2779.7	2761.7	2775.0	2767.4	2769.3	2765.5	2764.5	2767.4	2739.0	2731.4
15°	2802.4	2784.4	2793.9	2786.3	2785.4	2779.7	2777.8	2778.7	2750.4	2742.8
17.5°	2809.0	2788.2	2793.9	2785.4	2782.5	2777.8	2775.9	2777.8	2750.4	2742.8
20°	2795.8	2771.2	2774.0	2763.6	2759.8	2756.0	2756.0	2758.9	2732.4	2727.7
22.5°	2750.4	2729.6	2736.2	2729.6	2725.8	2722.0	2715.4	2708.7	2674.7	2668.1
25°	2618.0	2603.8	2628.4	2632.1	2621.7	2601.9	2565.0	2536.6	2487.4	2481.8
27.5°	2520.5	2491.2	2461.9	2425.0	2403.3	2394.7	2400.4	2410.8	2385.3	2375.8
30°	2411.8	2348.4	2291.7	2253.8	2239.6	2237.7	2260.4	2287.9	2292.6	2294.5
32.5°	2276.5	2196.1	2152.6	2140.3	2130.9	2128.0	2135.6	2166.8	2186.7	2204.6
35°	2123.3	2067.5	2044.8	2045.7	2036.3	2032.5	2027.8	2046.7	2067.5	2089.3
37.5°	1980.5	1955.9	1949.3	1953.1	1942.7	1937.0	1931.3	1936.0	1942.7	1950.2
40°	1846.2	1851.9	1855.6	1858.5	1845.2	1841.5	1836.7	1834.8	1823.5	1805.5
42.5°	1731.7	1746.9	1763.9	1763.9	1749.7	1747.8	1748.8	1743.1	1709.0	1684.5
45°	1633.4	1639.1	1668.4	1674.1	1661.8	1658.9	1659.9	1641.9	1588.0	1563.4
47.5°	1536.9	1539.7	1566.2	1579.5	1566.2	1563.4	1566.2	1528.4	1469.8	1457.5
50°	1439.5	1447.1	1458.4	1470.7	1458.4	1457.5	1454.6	1418.7	1361.0	1354.4
52.5°	1341.1	1356.3	1350.6	1353.4	1345.9	1346.8	1349.6	1312.8	1259.8	1248.4
55°	1240.9	1255.1	1240.9	1233.3	1230.5	1233.3	1239.0	1204.9	1163.3	1144.4
57.5°	1141.6	1150.1	1135.0	1119.8	1115.1	1121.7	1126.4	1098.1	1062.1	1047.9
60°	1038.5	1036.6	1024.3	1010.1	1000.6	1008.2	1015.8	990.2	958.1	949.6
62.5°	929.7	927.8	912.7	900.4	890.9	896.6	904.2	879.6	857.8	850.3
65°	818.1	816.2	800.1	790.7	782.2	784.1	792.6	769.9	756.6	748.1
67.5°	710.3	703.7	687.6	681.9	671.5	675.3	681.0	663.0	650.7	643.1
70°	596.8	591.1	576.9	571.3	562.7	564.6	570.3	559.0	545.7	541.0
72.5°	481.4	480.5	467.2	459.7	454.9	455.9	460.6	454.9	442.6	438.8
75°	369.8	372.6	362.2	355.6	350.9	350.9	356.6	357.5	344.3	339.5
77.5°	272.4	272.4	263.9	264.8	257.3	257.3	261.0	264.8	250.6	247.8
80°	182.5	181.6	178.8	175.9	172.1	173.1	175.9	180.6	169.3	170.2
82.5°	107.8	107.8	107.8	105.9	103.1	102.1	105.9	109.7	102.1	102.1
85°	53.0	52.0	52.0	52.0	50.1	49.2	52.0	53.9	49.2	50.1
87.5°	18.0	17.0	17.0	18.0	17.0	17.0	17.0	17.0	16.1	17.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)