

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: P183603

Luminaire Tested: **LSM70M8027D010TEP**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P183603
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: LSM70M8027D010TEP
Description: PORTFOLIO SURFACE MOUNT LED LUMINAIRE, MEDIUM DISTRIBUTION WITH CLEAR GLASS LENS
Light Source: 80 CRI, 2700K CCT LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6763.8 lumens
Efficiency: N/A
Efficacy: 90.5 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

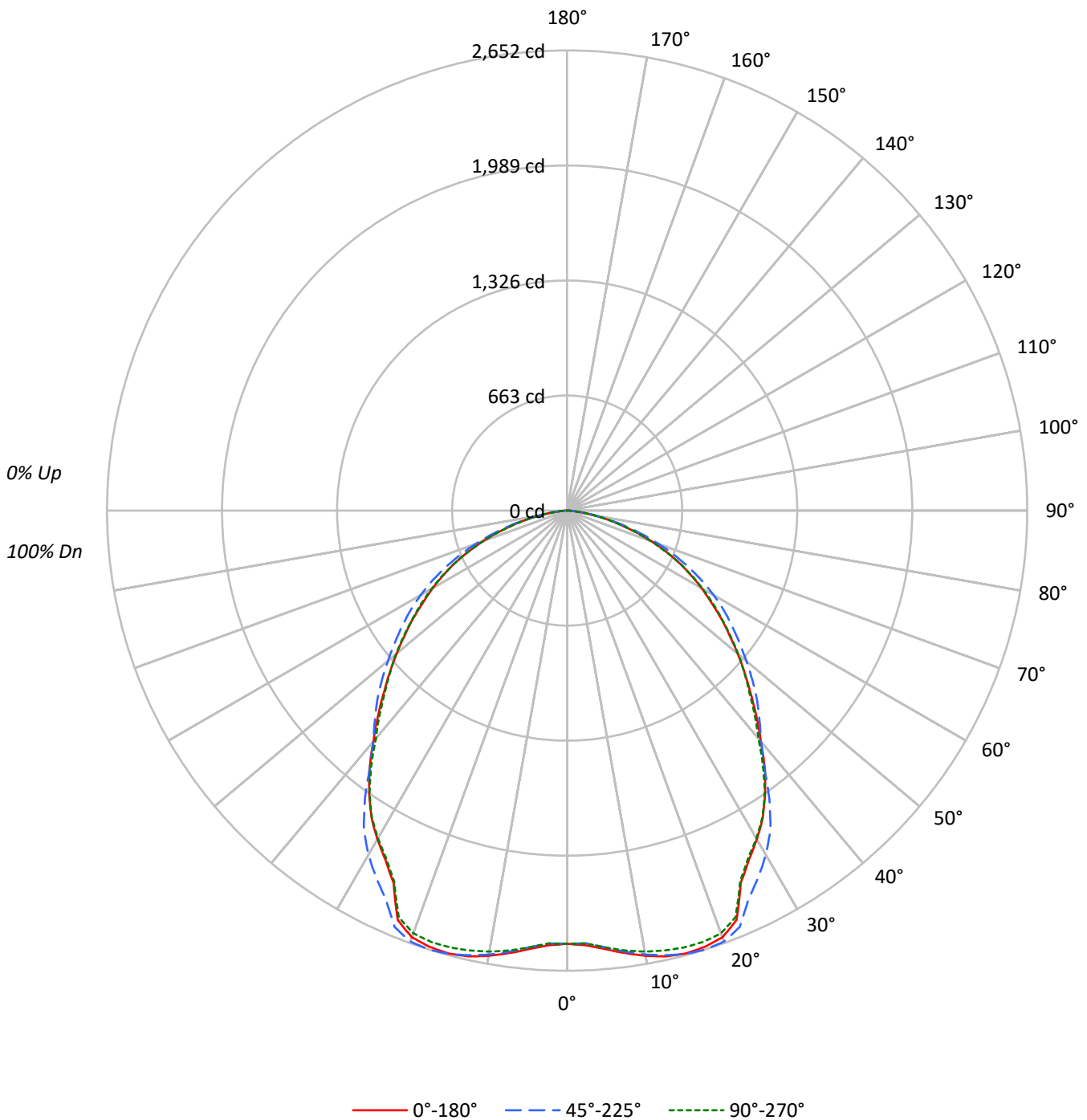
Input Watts (W): 74.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	27029	27029	27029
5°	27583	27475	27465
10°	28653	28564	28376
15°	29625	29645	29223
20°	30153	30452	29873
25°	28288	29523	28181
30°	27345	28638	27266
35°	26296	26866	26248
40°	24548	24561	24256
45°	22933	23717	22754
50°	21594	22699	21685
55°	20448	21907	20533
60°	19390	21122	19544
65°	18241	19806	18218
70°	16362	17673	16277
75°	13464	14518	13501
80°	9809	10483	10090
85°	5690	6026	5914



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	244.8	3.6
10°-20°	748.4	11.1
20°-30°	1123.8	16.6
30°-40°	1230.2	18.2
40°-50°	1203.3	17.8
50°-60°	1038.3	15.4
60°-70°	742.3	11.0
70°-80°	364.7	5.4
80°-90°	68.0	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°	2117.0	31.3
0°-40°	3347.2	49.5
0°-60°	5588.8	82.6
0°-90°	6763.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6763.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2496	2496	2496	2496	2496	
5°	2538	2559	2528	2547	2527	244
15°	2643	2679	2644	2647	2607	746
25°	2368	2508	2471	2492	2359	1103
35°	1989	1959	2032	1935	1986	1238
45°	1498	1597	1549	1579	1486	1159
55°	1083	1181	1160	1169	1088	969
65°	712	750	773	743	711	701
75°	322	340	347	334	323	345
85°	46	48	48	48	48	64
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°	2496.1	2496.1	2496.1	2496.1	2496.1	2496.1	2496.1	2496.1	2496.1	2496.1	2496.1
2.5°	2507.8	2528.5	2511.4	2507.8	2493.4	2527.6	2515.0	2517.7	2507.8	2509.6	2496.1
5°	2537.5	2559.0	2542.8	2538.4	2524.0	2559.0	2546.4	2548.2	2538.4	2541.0	2527.6
7.5°	2572.5	2595.0	2577.9	2575.2	2561.7	2596.8	2585.1	2586.9	2576.1	2577.9	2564.4
10°	2605.8	2630.0	2613.0	2611.2	2597.7	2635.4	2622.8	2624.6	2612.1	2613.0	2597.7
12.5°	2631.8	2657.0	2639.9	2639.9	2627.3	2663.3	2653.4	2655.2	2642.6	2642.6	2624.6
15°	2642.6	2668.7	2650.7	2653.4	2640.8	2678.6	2669.6	2670.5	2659.7	2662.4	2644.4
17.5°	2636.3	2662.4	2646.2	2648.0	2636.3	2675.0	2666.0	2669.6	2660.6	2667.8	2652.5
20°	2616.6	2639.9	2620.1	2621.9	2613.0	2651.6	2645.3	2651.6	2645.3	2656.1	2642.6
22.5°	2552.7	2574.3	2563.5	2575.2	2573.4	2614.8	2611.2	2616.6	2606.7	2612.1	2597.7
25°	2367.6	2395.4	2391.8	2425.1	2456.6	2507.8	2504.2	2506.0	2485.3	2487.1	2470.9
27.5°	2268.7	2292.1	2278.6	2280.4	2267.8	2296.6	2298.4	2343.3	2370.3	2394.5	2383.7
30°	2186.9	2204.9	2172.5	2150.0	2117.7	2146.5	2144.7	2184.2	2231.8	2288.5	2290.3
32.5°	2098.8	2104.2	2058.4	2027.8	2016.1	2046.7	2044.9	2056.6	2092.5	2153.6	2180.6
35°	1989.2	1993.6	1937.0	1928.0	1928.0	1958.6	1951.4	1955.0	1974.8	2014.3	2032.3
37.5°	1871.4	1865.1	1832.8	1834.6	1841.7	1869.6	1864.2	1864.2	1870.5	1888.5	1866.0
40°	1736.6	1743.8	1733.9	1742.9	1749.2	1776.1	1773.4	1775.2	1772.5	1762.6	1737.5
42.5°	1617.0	1635.0	1645.8	1656.6	1657.5	1683.5	1681.7	1688.9	1675.5	1649.4	1641.3
45°	1497.5	1519.1	1548.7	1570.3	1572.1	1597.3	1597.3	1599.1	1571.2	1552.3	1548.7
47.5°	1389.6	1412.1	1442.7	1475.0	1480.4	1506.5	1506.5	1502.0	1472.3	1460.6	1448.9
50°	1281.8	1310.5	1339.3	1377.9	1380.6	1400.4	1401.3	1396.8	1383.3	1368.9	1347.4
52.5°	1179.3	1214.3	1242.2	1273.7	1275.5	1291.6	1288.1	1291.6	1293.4	1277.3	1251.2
55°	1083.1	1119.1	1143.3	1165.8	1170.3	1181.1	1173.9	1185.6	1196.4	1182.0	1160.4
57.5°	984.2	1022.9	1043.6	1058.8	1062.4	1071.4	1064.2	1079.5	1093.9	1084.9	1070.5
60°	895.3	925.8	940.2	954.6	955.5	964.5	958.2	973.5	989.6	985.1	975.3
62.5°	803.6	825.1	835.9	851.2	846.7	855.7	858.4	871.9	883.6	884.5	876.4
65°	711.9	723.6	732.6	741.6	743.3	750.5	753.2	758.6	776.6	778.4	773.0
67.5°	614.8	622.0	630.1	638.2	637.3	644.5	651.7	657.1	668.7	673.2	666.0
70°	516.8	525.8	530.3	533.9	533.0	540.2	546.5	551.0	561.8	564.5	558.2
72.5°	418.0	427.0	430.5	431.4	430.5	438.6	444.0	446.7	455.7	460.2	450.3
75°	321.8	333.5	335.3	333.5	332.6	339.8	342.5	347.0	353.2	354.1	347.0
77.5°	234.6	244.5	246.3	243.6	241.8	247.2	249.0	253.5	257.1	258.9	251.7
80°	157.3	167.2	166.3	165.4	162.7	166.3	169.0	170.8	173.5	173.5	168.1
82.5°	94.4	100.7	99.8	100.7	98.0	98.9	100.7	103.4	102.5	104.3	100.7
85°	45.8	48.5	48.5	48.5	47.6	48.5	49.4	51.2	49.4	51.2	48.5
87.5°	16.2	17.1	16.2	16.2	16.2	16.2	17.1	17.1	16.2	17.1	16.2
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°	2496.1	2496.1	2496.1	2496.1	2496.1	2496.1	2496.1	2496.1	2496.1	2496.1
2.5°	2515.0	2500.6	2515.0	2508.7	2516.8	2514.1	2515.0	2524.9	2502.4	2497.0
5°	2546.4	2531.2	2545.5	2541.0	2547.3	2544.6	2546.4	2556.3	2533.0	2526.7
7.5°	2582.4	2566.2	2580.6	2574.3	2580.6	2577.9	2578.8	2586.9	2562.6	2557.2
10°	2615.7	2598.6	2611.2	2604.9	2608.5	2605.8	2607.6	2613.0	2586.9	2580.6
12.5°	2641.7	2624.6	2637.2	2630.0	2631.8	2628.2	2627.3	2630.0	2603.1	2595.9
15°	2663.3	2646.2	2655.2	2648.0	2647.1	2641.7	2639.9	2640.8	2613.9	2606.7
17.5°	2669.6	2649.8	2655.2	2647.1	2644.4	2639.9	2638.1	2639.9	2613.9	2606.7
20°	2657.0	2633.6	2636.3	2626.4	2622.8	2619.2	2619.2	2621.9	2596.8	2592.3
22.5°	2613.9	2594.1	2600.4	2594.1	2590.5	2586.9	2580.6	2574.3	2541.9	2535.7
25°	2488.0	2474.5	2497.9	2501.5	2491.6	2472.7	2437.7	2410.7	2364.0	2358.6
27.5°	2395.4	2367.6	2339.7	2304.7	2284.0	2275.9	2281.3	2291.2	2266.9	2257.9
30°	2292.1	2231.8	2177.9	2142.0	2128.5	2126.7	2148.3	2174.3	2178.8	2180.6
32.5°	2163.5	2087.1	2045.8	2034.1	2025.1	2022.4	2029.6	2059.3	2078.1	2095.2
35°	2017.9	1964.9	1943.3	1944.2	1935.2	1931.6	1927.1	1945.1	1964.9	1985.6
37.5°	1882.2	1858.8	1852.5	1856.1	1846.2	1840.8	1835.5	1839.9	1846.2	1853.4
40°	1754.6	1759.9	1763.5	1766.2	1753.7	1750.1	1745.6	1743.8	1733.0	1715.9
42.5°	1645.8	1660.2	1676.4	1676.4	1662.9	1661.1	1662.0	1656.6	1624.2	1600.9
45°	1552.3	1557.7	1585.6	1591.0	1579.3	1576.6	1577.5	1560.4	1509.2	1485.8
47.5°	1460.6	1463.3	1488.5	1501.1	1488.5	1485.8	1488.5	1452.5	1396.8	1385.1
50°	1368.0	1375.2	1386.0	1397.7	1386.0	1385.1	1382.4	1348.3	1293.4	1287.2
52.5°	1274.6	1289.0	1283.6	1286.3	1279.1	1280.0	1282.7	1247.6	1197.3	1186.5
55°	1179.3	1192.8	1179.3	1172.1	1169.4	1172.1	1177.5	1145.1	1105.6	1087.6
57.5°	1084.9	1093.0	1078.6	1064.2	1059.7	1066.0	1070.5	1043.6	1009.4	995.9
60°	986.9	985.1	973.5	960.0	951.0	958.2	965.4	941.1	910.5	902.4
62.5°	883.6	881.8	867.4	855.7	846.7	852.1	859.3	835.9	815.3	808.1
65°	777.5	775.7	760.4	751.4	743.3	745.1	753.2	731.7	719.1	711.0
67.5°	675.0	668.7	653.5	648.1	638.2	641.8	647.2	630.1	618.4	611.2
70°	567.2	561.8	548.3	542.9	534.8	536.6	542.0	531.2	518.6	514.1
72.5°	457.5	456.6	444.0	436.8	432.3	433.2	437.7	432.3	420.7	417.1
75°	351.5	354.1	344.3	338.0	333.5	333.5	338.9	339.8	327.2	322.7
77.5°	258.9	258.9	250.8	251.7	244.5	244.5	248.1	251.7	238.2	235.5
80°	173.5	172.6	169.9	167.2	163.6	164.5	167.2	171.7	160.9	161.8
82.5°	102.5	102.5	102.5	100.7	98.0	97.1	100.7	104.3	97.1	97.1
85°	50.3	49.4	49.4	49.4	47.6	46.7	49.4	51.2	46.7	47.6
87.5°	17.1	16.2	16.2	17.1	16.2	16.2	16.2	16.2	15.3	16.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)