

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: P183608

Luminaire Tested: **LSM70M8030D010TEP**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P183608
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: LSM70M8030D010TEP
Description: PORTFOLIO SURFACE MOUNT LED LUMINAIRE, MEDIUM DISTRIBUTION WITH CLEAR GLASS LENS
Light Source: 80 CRI, 3000K CCT LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7235.0 lumens
Efficiency: N/A
Efficacy: 96.9 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

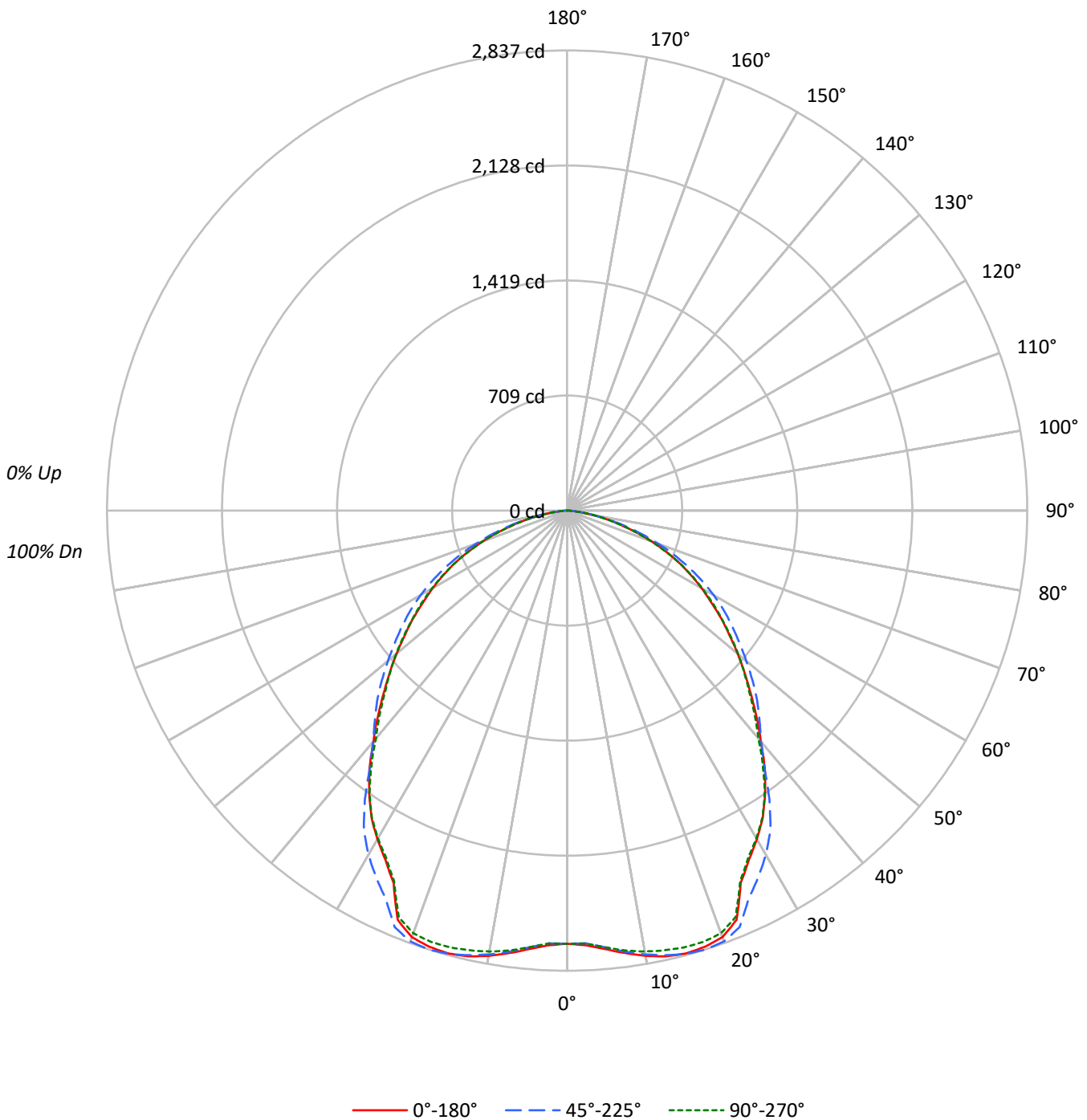
Input Watts (W): 74.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	28913	28913	28913
5°	29505	29389	29378
10°	30648	30554	30353
15°	31689	31712	31259
20°	32254	32574	31954
25°	30259	31580	30144
30°	29250	30632	29165
35°	28128	28738	28077
40°	26259	26271	25946
45°	24530	25369	24339
50°	23098	24281	23194
55°	21873	23435	21964
60°	20739	22593	20906
65°	19512	21188	19486
70°	17502	18905	17414
75°	14401	15526	14443
80°	10495	11212	10794
85°	6088	6448	6337



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	261.9	3.6
10°-20°	800.6	11.1
20°-30°	1202.1	16.6
30°-40°	1315.9	18.2
40°-50°	1287.2	17.8
50°-60°	1110.7	15.4
60°-70°	794.0	11.0
70°-80°	390.1	5.4
80°-90°	72.7	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°	2264.5	31.3
0°-40°	3580.4	49.5
0°-60°	5978.3	82.6
0°-90°	7235.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7235.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2670	2670	2670	2670	2670	
5°	2714	2737	2704	2725	2703	261
15°	2827	2865	2829	2832	2788	798
25°	2532	2682	2643	2665	2523	1180
35°	2128	2095	2174	2070	2124	1325
45°	1602	1708	1657	1689	1589	1240
55°	1159	1263	1241	1251	1163	1037
65°	762	803	827	795	760	750
75°	344	363	371	357	345	369
85°	49	52	52	51	51	68
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°	2670.0	2670.0	2670.0	2670.0	2670.0	2670.0	2670.0	2670.0	2670.0	2670.0	2670.0
2.5°	2682.5	2704.6	2686.4	2682.5	2667.1	2703.7	2690.2	2693.1	2682.5	2684.4	2670.0
5°	2714.3	2737.3	2720.0	2715.2	2699.8	2737.3	2723.9	2725.8	2715.2	2718.1	2703.7
7.5°	2751.8	2775.8	2757.5	2754.6	2740.2	2777.7	2765.2	2767.1	2755.6	2757.5	2743.1
10°	2787.3	2813.3	2795.0	2793.1	2778.7	2819.1	2805.6	2807.5	2794.1	2795.0	2778.7
12.5°	2815.2	2842.1	2823.9	2823.9	2810.4	2848.9	2838.3	2840.2	2826.7	2826.7	2807.5
15°	2826.7	2854.6	2835.4	2838.3	2824.8	2865.2	2855.6	2856.6	2845.0	2847.9	2828.7
17.5°	2820.0	2847.9	2830.6	2832.5	2820.0	2861.4	2851.7	2855.6	2846.0	2853.7	2837.3
20°	2798.9	2823.9	2802.7	2804.6	2795.0	2836.4	2829.6	2836.4	2829.6	2841.2	2826.7
22.5°	2730.6	2753.7	2742.1	2754.6	2752.7	2796.9	2793.1	2798.9	2788.3	2794.1	2778.7
25°	2532.5	2562.3	2558.5	2594.1	2627.7	2682.5	2678.7	2680.6	2658.5	2660.4	2643.1
27.5°	2426.8	2451.8	2437.3	2439.3	2425.8	2456.6	2458.5	2506.6	2535.4	2561.4	2549.8
30°	2339.3	2358.5	2323.9	2299.9	2265.2	2296.0	2294.1	2336.4	2387.4	2447.9	2449.8
32.5°	2245.1	2250.8	2201.8	2169.1	2156.6	2189.3	2187.4	2199.9	2238.3	2303.7	2332.5
35°	2127.8	2132.6	2072.0	2062.4	2062.4	2095.1	2087.4	2091.2	2112.4	2154.7	2173.9
37.5°	2001.8	1995.1	1960.5	1962.4	1970.1	1999.9	1994.1	1994.1	2000.8	2020.1	1996.0
40°	1857.6	1865.3	1854.7	1864.3	1871.0	1899.9	1897.0	1898.9	1896.0	1885.5	1858.5
42.5°	1729.7	1748.9	1760.5	1772.0	1773.0	1800.8	1798.9	1806.6	1792.2	1764.3	1755.7
45°	1601.8	1624.9	1656.6	1679.7	1681.6	1708.5	1708.5	1710.5	1680.7	1660.5	1656.6
47.5°	1486.4	1510.5	1543.2	1577.8	1583.6	1611.4	1611.4	1606.6	1574.9	1562.4	1549.9
50°	1371.1	1401.8	1432.6	1473.9	1476.8	1498.0	1498.9	1494.1	1479.7	1464.3	1441.3
52.5°	1261.5	1299.0	1328.8	1362.4	1364.3	1381.6	1377.8	1381.6	1383.6	1366.3	1338.4
55°	1158.6	1197.0	1223.0	1247.0	1251.8	1263.4	1255.7	1268.2	1279.7	1264.3	1241.3
57.5°	1052.8	1094.2	1116.3	1132.6	1136.5	1146.1	1138.4	1154.7	1170.1	1160.5	1145.1
60°	957.6	990.3	1005.7	1021.1	1022.1	1031.7	1024.9	1041.3	1058.6	1053.8	1043.2
62.5°	859.6	882.6	894.2	910.5	905.7	915.3	918.2	932.6	945.1	946.1	937.4
65°	761.5	774.0	783.6	793.2	795.1	802.8	805.7	811.5	830.7	832.6	826.9
67.5°	657.7	665.3	674.0	682.6	681.7	689.4	697.1	702.8	715.3	720.1	712.5
70°	552.8	562.5	567.3	571.1	570.2	577.8	584.6	589.4	600.9	603.8	597.1
72.5°	447.1	456.7	460.5	461.5	460.5	469.2	475.0	477.9	487.5	492.3	481.7
75°	344.2	356.7	358.6	356.7	355.7	363.4	366.3	371.1	377.9	378.8	371.1
77.5°	250.9	261.5	263.4	260.6	258.6	264.4	266.3	271.1	275.0	276.9	269.2
80°	168.3	178.8	177.9	176.9	174.0	177.9	180.8	182.7	185.6	185.6	179.8
82.5°	101.0	107.7	106.7	107.7	104.8	105.8	107.7	110.6	109.6	111.5	107.7
85°	49.0	51.9	51.9	51.9	51.0	51.9	52.9	54.8	52.9	54.8	51.9
87.5°	17.3	18.3	17.3	17.3	17.3	17.3	18.3	18.3	17.3	18.3	17.3
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°	2670.0	2670.0	2670.0	2670.0	2670.0	2670.0	2670.0	2670.0	2670.0	2670.0
2.5°	2690.2	2674.8	2690.2	2683.5	2692.1	2689.3	2690.2	2700.8	2676.8	2671.0
5°	2723.9	2707.5	2722.9	2718.1	2724.8	2721.9	2723.9	2734.4	2709.4	2702.7
7.5°	2762.3	2745.0	2760.4	2753.7	2760.4	2757.5	2758.5	2767.1	2741.2	2735.4
10°	2797.9	2779.6	2793.1	2786.4	2790.2	2787.3	2789.2	2795.0	2767.1	2760.4
12.5°	2825.8	2807.5	2821.0	2813.3	2815.2	2811.4	2810.4	2813.3	2784.4	2776.7
15°	2848.9	2830.6	2840.2	2832.5	2831.6	2825.8	2823.9	2824.8	2796.0	2788.3
17.5°	2855.6	2834.4	2840.2	2831.6	2828.7	2823.9	2821.9	2823.9	2796.0	2788.3
20°	2842.1	2817.1	2820.0	2809.4	2805.6	2801.7	2801.7	2804.6	2777.7	2772.9
22.5°	2796.0	2774.8	2781.6	2774.8	2771.0	2767.1	2760.4	2753.7	2719.1	2712.3
25°	2661.4	2646.9	2671.9	2675.8	2665.2	2645.0	2607.5	2578.7	2528.7	2522.9
27.5°	2562.3	2532.5	2502.7	2465.2	2443.1	2434.5	2440.2	2450.8	2424.8	2415.2
30°	2451.8	2387.4	2329.7	2291.2	2276.8	2274.9	2297.9	2325.8	2330.6	2332.5
32.5°	2314.3	2232.6	2188.3	2175.8	2166.2	2163.3	2171.0	2202.7	2222.9	2241.2
35°	2158.5	2101.8	2078.7	2079.7	2070.1	2066.2	2061.4	2080.6	2101.8	2123.9
37.5°	2013.3	1988.3	1981.6	1985.5	1974.9	1969.1	1963.3	1968.1	1974.9	1982.6
40°	1876.8	1882.6	1886.4	1889.3	1875.8	1872.0	1867.2	1865.3	1853.7	1835.5
42.5°	1760.5	1775.9	1793.2	1793.2	1778.7	1776.8	1777.8	1772.0	1737.4	1712.4
45°	1660.5	1666.2	1696.0	1701.8	1689.3	1686.4	1687.4	1669.1	1614.3	1589.3
47.5°	1562.4	1565.3	1592.2	1605.7	1592.2	1589.3	1592.2	1553.7	1494.1	1481.6
50°	1463.4	1471.1	1482.6	1495.1	1482.6	1481.6	1478.8	1442.2	1383.6	1376.8
52.5°	1363.4	1378.8	1373.0	1375.9	1368.2	1369.1	1372.0	1334.5	1280.7	1269.2
55°	1261.5	1275.9	1261.5	1253.8	1250.9	1253.8	1259.5	1224.9	1182.6	1163.4
57.5°	1160.5	1169.2	1153.8	1138.4	1133.6	1140.3	1145.1	1116.3	1079.7	1065.3
60°	1055.7	1053.8	1041.3	1026.9	1017.2	1024.9	1032.6	1006.7	974.0	965.3
62.5°	945.1	943.2	927.8	915.3	905.7	911.5	919.2	894.2	872.1	864.4
65°	831.7	829.8	813.4	803.8	795.1	797.1	805.7	782.6	769.2	760.5
67.5°	722.1	715.3	699.0	693.2	682.6	686.5	692.3	674.0	661.5	653.8
70°	606.7	600.9	586.5	580.7	572.1	574.0	579.8	568.2	554.8	550.0
72.5°	489.4	488.4	475.0	467.3	462.5	463.4	468.2	462.5	450.0	446.1
75°	375.9	378.8	368.2	361.5	356.7	356.7	362.5	363.4	350.0	345.2
77.5°	276.9	276.9	268.3	269.2	261.5	261.5	265.4	269.2	254.8	251.9
80°	185.6	184.6	181.7	178.8	175.0	176.0	178.8	183.6	172.1	173.1
82.5°	109.6	109.6	109.6	107.7	104.8	103.8	107.7	111.5	103.8	103.8
85°	53.8	52.9	52.9	52.9	51.0	50.0	52.9	54.8	50.0	51.0
87.5°	18.3	17.3	17.3	18.3	17.3	17.3	17.3	17.3	16.3	17.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)