

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: P183613

Luminaire Tested: **LSM70M8035D010TEP**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P183613
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: LSM70M8035D010TEP
Description: PORTFOLIO SURFACE MOUNT LED LUMINAIRE, MEDIUM DISTRIBUTION WITH CLEAR GLASS LENS
Light Source: 80 CRI, 3500K CCT LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7668.9 lumens
Efficiency: N/A
Efficacy: 102.7 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

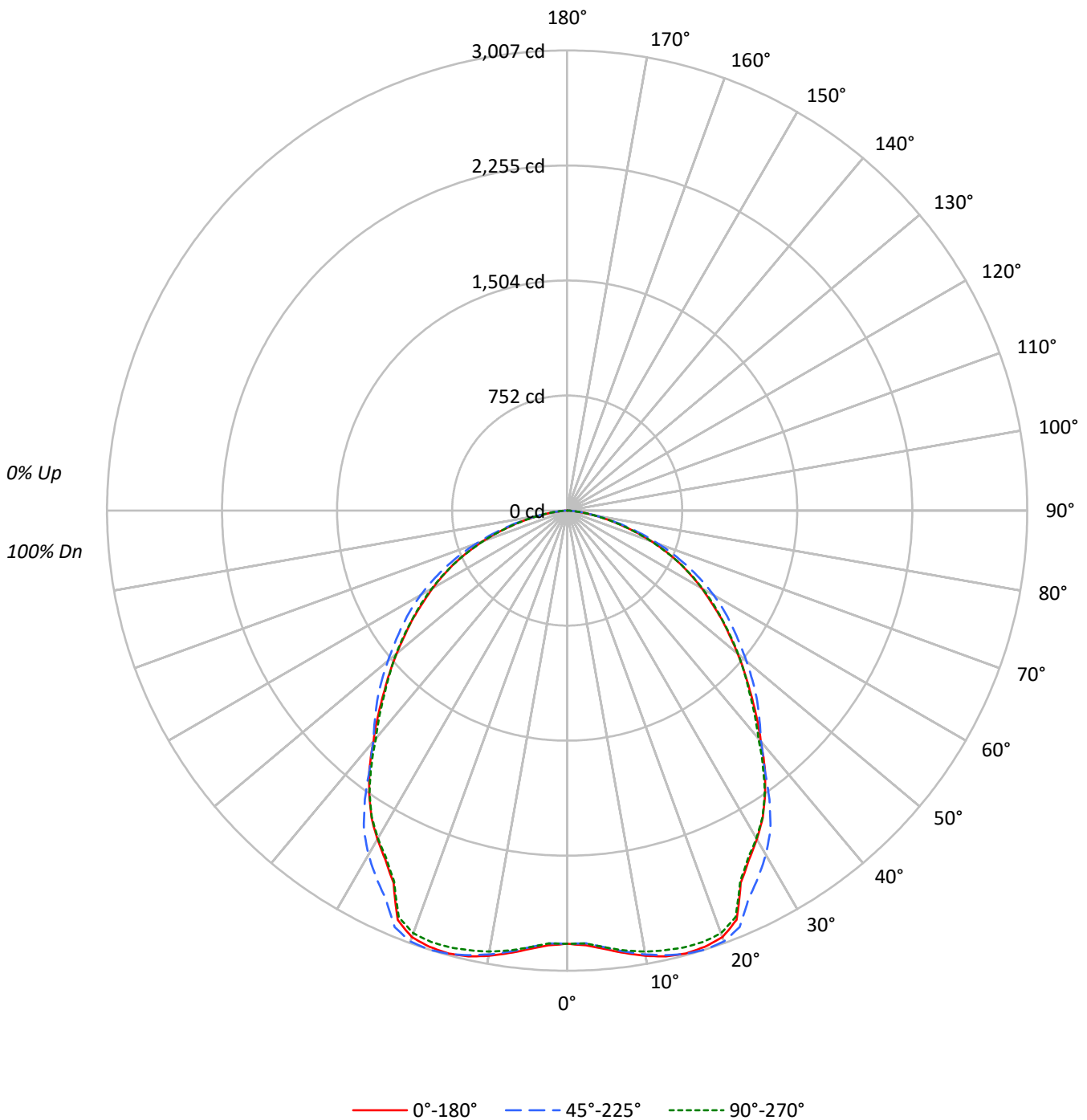
Input Watts (W): 74.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	30646	30646	30646
5°	31273	31151	31140
10°	32487	32386	32172
15°	33589	33613	33133
20°	34187	34527	33870
25°	32074	33474	31952
30°	31003	32469	30915
35°	29814	30460	29761
40°	27833	27848	27501
45°	26002	26891	25798
50°	24483	25736	24586
55°	23184	24839	23280
60°	21984	23949	22160
65°	20680	22456	20655
70°	18553	20038	18455
75°	15263	16459	15309
80°	11119	11886	11437
85°	6461	6833	6709



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	277.6	3.6
10°-20°	848.6	11.1
20°-30°	1274.2	16.6
30°-40°	1394.8	18.2
40°-50°	1364.4	17.8
50°-60°	1177.3	15.4
60°-70°	841.6	11.0
70°-80°	413.5	5.4
80°-90°	77.1	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°	2400.3	31.3
0°-40°	3795.1	49.5
0°-60°	6336.7	82.6
0°-90°	7668.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7668.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2830	2830	2830	2830	2830	
5°	2877	2902	2866	2888	2865	277
15°	2996	3037	2998	3001	2956	846
25°	2684	2843	2802	2825	2674	1251
35°	2255	2221	2304	2194	2251	1404
45°	1698	1811	1756	1791	1685	1315
55°	1228	1339	1316	1326	1233	1099
65°	807	851	876	843	806	795
75°	365	385	393	378	366	392
85°	52	55	55	54	54	72
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°	2830.1	2830.1	2830.1	2830.1	2830.1	2830.1	2830.1	2830.1	2830.1	2830.1	2830.1
2.5°	2843.4	2866.8	2847.4	2843.4	2827.1	2865.8	2851.5	2854.6	2843.4	2845.4	2830.1
5°	2877.0	2901.5	2883.1	2878.0	2861.7	2901.5	2887.2	2889.2	2878.0	2881.1	2865.8
7.5°	2916.7	2942.2	2922.9	2919.8	2904.5	2944.3	2931.0	2933.0	2920.8	2922.9	2907.6
10°	2954.5	2982.0	2962.6	2960.6	2945.3	2988.1	2973.8	2975.9	2961.6	2962.6	2945.3
12.5°	2984.0	3012.5	2993.2	2993.2	2978.9	3019.7	3008.5	3010.5	2996.2	2996.2	2975.9
15°	2996.2	3025.8	3005.4	3008.5	2994.2	3037.0	3026.8	3027.8	3015.6	3018.7	2998.3
17.5°	2989.1	3018.7	3000.3	3002.4	2989.1	3032.9	3022.7	3026.8	3016.6	3024.8	3007.4
20°	2966.7	2993.2	2970.8	2972.8	2962.6	3006.4	2999.3	3006.4	2999.3	3011.5	2996.2
22.5°	2894.3	2918.8	2906.6	2919.8	2917.8	2964.6	2960.6	2966.7	2955.5	2961.6	2945.3
25°	2684.4	2716.0	2711.9	2749.6	2785.3	2843.4	2839.3	2841.3	2817.9	2819.9	2801.6
27.5°	2572.3	2598.8	2583.5	2585.5	2571.3	2603.9	2605.9	2656.9	2687.4	2715.0	2702.7
30°	2479.5	2499.9	2463.2	2437.8	2401.1	2433.7	2431.6	2476.5	2530.5	2594.7	2596.7
32.5°	2379.7	2385.8	2333.8	2299.2	2285.9	2320.6	2318.5	2331.8	2372.5	2441.8	2472.4
35°	2255.3	2260.4	2196.2	2186.0	2186.0	2220.7	2212.5	2216.6	2239.0	2283.9	2304.2
37.5°	2121.8	2114.7	2078.0	2080.0	2088.2	2119.8	2113.7	2113.7	2120.8	2141.2	2115.7
40°	1969.0	1977.1	1965.9	1976.1	1983.2	2013.8	2010.7	2012.8	2009.7	1998.5	1970.0
42.5°	1833.4	1853.8	1866.0	1878.3	1879.3	1908.8	1906.8	1914.9	1899.7	1870.1	1860.9
45°	1697.9	1722.3	1756.0	1780.4	1782.5	1811.0	1811.0	1813.0	1781.4	1760.0	1756.0
47.5°	1575.6	1601.0	1635.7	1672.4	1678.5	1708.1	1708.1	1703.0	1669.3	1656.1	1642.8
50°	1453.3	1485.9	1518.5	1562.3	1565.4	1587.8	1588.8	1583.7	1568.4	1552.1	1527.7
52.5°	1337.1	1376.8	1408.4	1444.1	1446.1	1464.5	1460.4	1464.5	1466.5	1448.2	1418.6
55°	1228.0	1268.8	1296.3	1321.8	1326.9	1339.1	1331.0	1344.2	1356.5	1340.2	1315.7
57.5°	1115.9	1159.8	1183.2	1200.5	1204.6	1214.8	1206.6	1224.0	1240.3	1230.1	1213.8
60°	1015.1	1049.7	1066.0	1082.3	1083.3	1093.5	1086.4	1103.7	1122.1	1117.0	1105.8
62.5°	911.1	935.6	947.8	965.1	960.0	970.2	973.3	988.6	1001.8	1002.8	993.6
65°	807.1	820.4	830.6	840.8	842.8	851.0	854.0	860.1	880.5	882.6	876.4
67.5°	697.1	705.2	714.4	723.6	722.6	730.7	738.9	745.0	758.2	763.3	755.2
70°	586.0	596.2	601.3	605.4	604.3	612.5	619.6	624.7	637.0	640.0	632.9
72.5°	473.9	484.1	488.2	489.2	488.2	497.3	503.4	506.5	516.7	521.8	510.6
75°	364.8	378.1	380.1	378.1	377.1	385.2	388.3	393.4	400.5	401.5	393.4
77.5°	266.0	277.2	279.2	276.2	274.1	280.3	282.3	287.4	291.5	293.5	285.4
80°	178.3	189.6	188.5	187.5	184.5	188.5	191.6	193.6	196.7	196.7	190.6
82.5°	107.0	114.1	113.1	114.1	111.1	112.1	114.1	117.2	116.2	118.2	114.1
85°	52.0	55.0	55.0	55.0	54.0	55.0	56.1	58.1	56.1	58.1	55.0
87.5°	18.3	19.4	18.3	18.3	18.3	18.3	19.4	19.4	18.3	19.4	18.3
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°	2830.1	2830.1	2830.1	2830.1	2830.1	2830.1	2830.1	2830.1	2830.1	2830.1
2.5°	2851.5	2835.2	2851.5	2844.4	2853.6	2850.5	2851.5	2862.7	2837.3	2831.1
5°	2887.2	2869.9	2886.2	2881.1	2888.2	2885.2	2887.2	2898.4	2871.9	2864.8
7.5°	2928.0	2909.6	2925.9	2918.8	2925.9	2922.9	2923.9	2933.0	2905.5	2899.4
10°	2965.7	2946.3	2960.6	2953.4	2957.5	2954.5	2956.5	2962.6	2933.0	2925.9
12.5°	2995.2	2975.9	2990.1	2982.0	2984.0	2979.9	2978.9	2982.0	2951.4	2943.2
15°	3019.7	3000.3	3010.5	3002.4	3001.3	2995.2	2993.2	2994.2	2963.6	2955.5
17.5°	3026.8	3004.4	3010.5	3001.3	2998.3	2993.2	2991.1	2993.2	2963.6	2955.5
20°	3012.5	2986.0	2989.1	2977.9	2973.8	2969.7	2969.7	2972.8	2944.3	2939.2
22.5°	2963.6	2941.2	2948.3	2941.2	2937.1	2933.0	2925.9	2918.8	2882.1	2875.0
25°	2820.9	2805.7	2832.2	2836.2	2825.0	2803.6	2763.9	2733.3	2680.3	2674.2
27.5°	2716.0	2684.4	2652.8	2613.0	2589.6	2580.4	2586.5	2597.8	2570.2	2560.0
30°	2598.8	2530.5	2469.3	2428.6	2413.3	2411.3	2435.7	2465.3	2470.4	2472.4
32.5°	2453.0	2366.4	2319.5	2306.3	2296.1	2293.0	2301.2	2334.8	2356.2	2375.6
35°	2287.9	2227.8	2203.4	2204.4	2194.2	2190.1	2185.0	2205.4	2227.8	2251.3
37.5°	2134.1	2107.6	2100.4	2104.5	2093.3	2087.2	2081.1	2086.2	2093.3	2101.4
40°	1989.3	1995.5	1999.5	2002.6	1988.3	1984.2	1979.1	1977.1	1964.9	1945.5
42.5°	1866.0	1882.3	1900.7	1900.7	1885.4	1883.3	1884.4	1878.3	1841.6	1815.1
45°	1760.0	1766.1	1797.7	1803.9	1790.6	1787.6	1788.6	1769.2	1711.1	1684.6
47.5°	1656.1	1659.1	1687.7	1701.9	1687.7	1684.6	1687.7	1646.9	1583.7	1570.5
50°	1551.1	1559.3	1571.5	1584.7	1571.5	1570.5	1567.4	1528.7	1466.5	1459.4
52.5°	1445.1	1461.4	1455.3	1458.4	1450.2	1451.2	1454.3	1414.5	1357.5	1345.2
55°	1337.1	1352.4	1337.1	1328.9	1325.9	1328.9	1335.1	1298.4	1253.5	1233.1
57.5°	1230.1	1239.3	1223.0	1206.6	1201.6	1208.7	1213.8	1183.2	1144.5	1129.2
60°	1119.0	1117.0	1103.7	1088.4	1078.2	1086.4	1094.5	1067.0	1032.4	1023.2
62.5°	1001.8	999.8	983.5	970.2	960.0	966.1	974.3	947.8	924.3	916.2
65°	881.5	879.5	862.2	852.0	842.8	844.9	854.0	829.6	815.3	806.1
67.5°	765.4	758.2	740.9	734.8	723.6	727.7	733.8	714.4	701.2	693.0
70°	643.1	637.0	621.7	615.6	606.4	608.4	614.5	602.3	588.0	582.9
72.5°	518.7	517.7	503.4	495.3	490.2	491.2	496.3	490.2	477.0	472.9
75°	398.5	401.5	390.3	383.2	378.1	378.1	384.2	385.2	371.0	365.9
77.5°	293.5	293.5	284.3	285.4	277.2	277.2	281.3	285.4	270.1	267.0
80°	196.7	195.7	192.6	189.6	185.5	186.5	189.6	194.7	182.4	183.4
82.5°	116.2	116.2	116.2	114.1	111.1	110.1	114.1	118.2	110.1	110.1
85°	57.1	56.1	56.1	56.1	54.0	53.0	56.1	58.1	53.0	54.0
87.5°	19.4	18.3	18.3	19.4	18.3	18.3	18.3	18.3	17.3	18.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)