

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: P183629

Luminaire Tested: **LSM80M9030D010TEP**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P183629  
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: LSM80M9030D010TEP  
Description: PORTFOLIO SURFACE MOUNT LED LUMINAIRE, MEDIUM DISTRIBUTION WITH CLEAR GLASS LENS  
Light Source: 90 CRI, 3000K CCT LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6722.2 lumens  
Efficiency: N/A  
Efficacy: 76.3 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

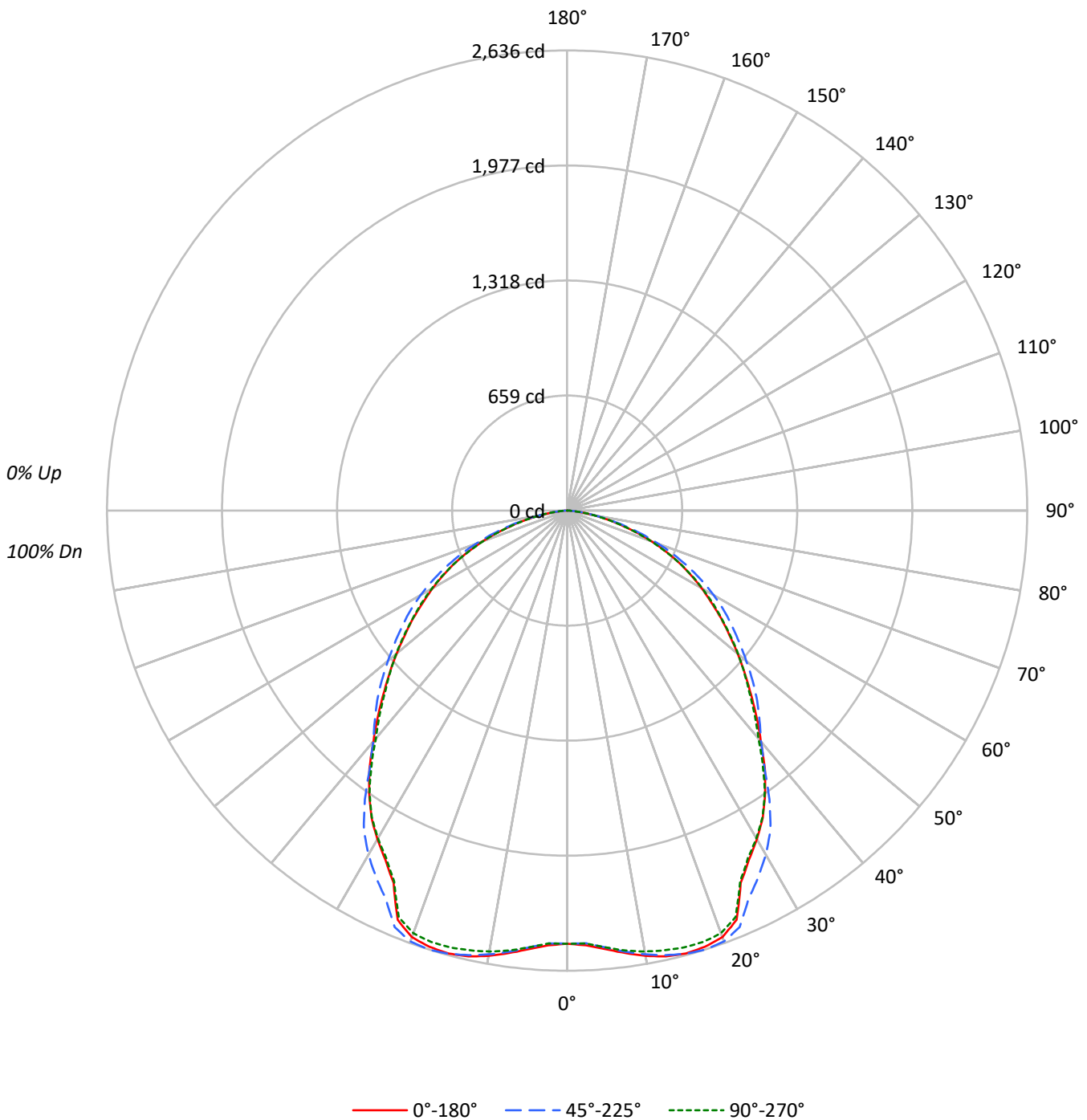
Input Watts (W): 88.06  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	26864	26864	26864
5°	27413	27306	27297
10°	28477	28388	28202
15°	29444	29464	29043
20°	29967	30266	29689
25°	28114	29342	28008
30°	27177	28461	27098
35°	26133	26700	26087
40°	24397	24410	24107
45°	22792	23571	22614
50°	21461	22559	21550
55°	20323	21773	20407
60°	19271	20992	19424
65°	18128	19686	18105
70°	16264	17565	16179
75°	13380	14426	13418
80°	9747	10420	10027
85°	5666	5989	5877



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	243.3	3.6
10°-20°	743.8	11.1
20°-30°	1116.9	16.6
30°-40°	1222.6	18.2
40°-50°	1195.9	17.8
50°-60°	1032.0	15.4
60°-70°	737.7	11.0
70°-80°	362.4	5.4
80°-90°	67.6	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°	2104.0	31.3
0°-40°	3326.6	49.5
0°-60°	5554.5	82.6
0°-90°	6722.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6722.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2481	2481	2481	2481	2481	
5°	2522	2543	2512	2532	2511	243
15°	2626	2662	2628	2631	2591	741
25°	2353	2492	2456	2476	2344	1096
35°	1977	1947	2020	1923	1973	1231
45°	1488	1587	1539	1570	1477	1152
55°	1076	1174	1153	1162	1081	963
65°	708	746	768	739	707	697
75°	320	338	345	331	321	343
85°	46	48	48	47	47	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°	2480.8	2480.8	2480.8	2480.8	2480.8	2480.8	2480.8	2480.8	2480.8	2480.8	2480.8
2.5°	2492.4	2512.9	2496.0	2492.4	2478.1	2512.0	2499.5	2502.2	2492.4	2494.2	2480.8
5°	2521.9	2543.3	2527.2	2522.8	2508.5	2543.3	2530.8	2532.6	2522.8	2525.4	2512.0
7.5°	2556.7	2579.0	2562.1	2559.4	2546.0	2580.8	2569.2	2571.0	2560.3	2562.1	2548.7
10°	2589.8	2613.9	2596.9	2595.1	2581.7	2619.2	2606.7	2608.5	2596.0	2596.9	2581.7
12.5°	2615.7	2640.7	2623.7	2623.7	2611.2	2646.9	2637.1	2638.9	2626.4	2626.4	2608.5
15°	2626.4	2652.3	2634.4	2637.1	2624.6	2662.1	2653.2	2654.1	2643.4	2646.0	2628.2
17.5°	2620.1	2646.0	2630.0	2631.8	2620.1	2658.6	2649.6	2653.2	2644.3	2651.4	2636.2
20°	2600.5	2623.7	2604.1	2605.8	2596.9	2635.3	2629.1	2635.3	2629.1	2639.8	2626.4
22.5°	2537.1	2558.5	2547.8	2559.4	2557.6	2598.7	2595.1	2600.5	2590.7	2596.0	2581.7
25°	2353.0	2380.7	2377.2	2410.2	2441.5	2492.4	2488.8	2490.6	2470.1	2471.8	2455.8
27.5°	2254.8	2278.0	2264.6	2266.4	2253.9	2282.5	2284.2	2328.9	2355.7	2379.8	2369.1
30°	2173.5	2191.3	2159.2	2136.8	2104.7	2133.3	2131.5	2170.8	2218.1	2274.4	2276.2
32.5°	2085.9	2091.3	2045.7	2015.4	2003.7	2034.1	2032.3	2043.9	2079.7	2140.4	2167.2
35°	1976.9	1981.4	1925.1	1916.2	1916.2	1946.6	1939.4	1943.0	1962.6	2002.0	2019.8
37.5°	1859.9	1853.7	1821.5	1823.3	1830.4	1858.1	1852.8	1852.8	1859.0	1876.9	1854.6
40°	1725.9	1733.1	1723.2	1732.2	1738.4	1765.2	1762.5	1764.3	1761.6	1751.8	1726.8
42.5°	1607.1	1625.0	1635.7	1646.4	1647.3	1673.2	1671.4	1678.6	1665.2	1639.3	1631.2
45°	1488.3	1509.7	1539.2	1560.6	1562.4	1587.4	1587.4	1589.2	1561.5	1542.8	1539.2
47.5°	1381.1	1403.4	1433.8	1466.0	1471.3	1497.2	1497.2	1492.8	1463.3	1451.7	1440.0
50°	1273.9	1302.5	1331.1	1369.5	1372.2	1391.8	1392.7	1388.2	1374.8	1360.5	1339.1
52.5°	1172.0	1206.9	1234.6	1265.8	1267.6	1283.7	1280.1	1283.7	1285.5	1269.4	1243.5
55°	1076.5	1112.2	1136.3	1158.6	1163.1	1173.8	1166.7	1178.3	1189.0	1174.7	1153.3
57.5°	978.2	1016.6	1037.2	1052.3	1055.9	1064.8	1057.7	1072.9	1087.2	1078.2	1064.0
60°	889.8	920.1	934.4	948.7	949.6	958.5	952.3	967.5	983.6	979.1	969.3
62.5°	798.6	820.1	830.8	846.0	841.5	850.5	853.1	866.5	878.1	879.0	871.0
65°	707.5	719.1	728.1	737.0	738.8	745.9	748.6	754.0	771.8	773.6	768.3
67.5°	611.0	618.2	626.2	634.3	633.4	640.5	647.7	653.0	664.6	669.1	662.0
70°	513.7	522.6	527.1	530.6	529.7	536.9	543.1	547.6	558.3	561.0	554.8
72.5°	415.4	424.3	427.9	428.8	427.9	435.9	441.3	444.0	452.9	457.4	447.6
75°	319.8	331.4	333.2	331.4	330.5	337.7	340.4	344.8	351.1	352.0	344.8
77.5°	233.2	243.0	244.8	242.1	240.3	245.7	247.5	251.9	255.5	257.3	250.1
80°	156.3	166.2	165.3	164.4	161.7	165.3	167.9	169.7	172.4	172.4	167.1
82.5°	93.8	100.1	99.2	100.1	97.4	98.3	100.1	102.7	101.8	103.6	100.1
85°	45.6	48.2	48.2	48.2	47.3	48.2	49.1	50.9	49.1	50.9	48.2
87.5°	16.1	17.0	16.1	16.1	16.1	16.1	17.0	17.0	16.1	17.0	16.1
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°	2480.8	2480.8	2480.8	2480.8	2480.8	2480.8	2480.8	2480.8	2480.8	2480.8
2.5°	2499.5	2485.2	2499.5	2493.3	2501.3	2498.6	2499.5	2509.4	2487.0	2481.7
5°	2530.8	2515.6	2529.9	2525.4	2531.7	2529.0	2530.8	2540.6	2517.4	2511.2
7.5°	2566.5	2550.5	2564.8	2558.5	2564.8	2562.1	2563.0	2571.0	2546.9	2541.5
10°	2599.6	2582.6	2595.1	2588.9	2592.4	2589.8	2591.6	2596.9	2571.0	2564.8
12.5°	2625.5	2608.5	2621.0	2613.9	2615.7	2612.1	2611.2	2613.9	2587.1	2579.9
15°	2646.9	2630.0	2638.9	2631.8	2630.9	2625.5	2623.7	2624.6	2597.8	2590.7
17.5°	2653.2	2633.5	2638.9	2630.9	2628.2	2623.7	2621.9	2623.7	2597.8	2590.7
20°	2640.7	2617.5	2620.1	2610.3	2606.7	2603.2	2603.2	2605.8	2580.8	2576.4
22.5°	2597.8	2578.2	2584.4	2578.2	2574.6	2571.0	2564.8	2558.5	2526.3	2520.1
25°	2472.7	2459.3	2482.6	2486.1	2476.3	2457.6	2422.7	2395.9	2349.5	2344.1
27.5°	2380.7	2353.0	2325.3	2290.5	2270.0	2261.9	2267.3	2277.1	2253.0	2244.0
30°	2278.0	2218.1	2164.5	2128.8	2115.4	2113.6	2135.1	2161.0	2165.4	2167.2
32.5°	2150.2	2074.3	2033.2	2021.6	2012.7	2010.0	2017.1	2046.6	2065.4	2082.4
35°	2005.5	1952.8	1931.4	1932.3	1923.3	1919.8	1915.3	1933.2	1952.8	1973.4
37.5°	1870.6	1847.4	1841.2	1844.7	1834.9	1829.5	1824.2	1828.6	1834.9	1842.0
40°	1743.8	1749.1	1752.7	1755.4	1742.9	1739.3	1734.8	1733.1	1722.3	1705.4
42.5°	1635.7	1650.0	1666.1	1666.1	1652.7	1650.9	1651.8	1646.4	1614.2	1591.0
45°	1542.8	1548.1	1575.8	1581.2	1569.6	1566.9	1567.8	1550.8	1499.9	1476.7
47.5°	1451.7	1454.3	1479.4	1491.9	1479.4	1476.7	1479.4	1443.6	1388.2	1376.6
50°	1359.6	1366.8	1377.5	1389.1	1377.5	1376.6	1373.9	1340.0	1285.5	1279.2
52.5°	1266.7	1281.0	1275.7	1278.4	1271.2	1272.1	1274.8	1239.9	1189.9	1179.2
55°	1172.0	1185.4	1172.0	1164.9	1162.2	1164.9	1170.3	1138.1	1098.8	1080.9
57.5°	1078.2	1086.3	1072.0	1057.7	1053.2	1059.5	1064.0	1037.2	1003.2	989.8
60°	980.9	979.1	967.5	954.1	945.1	952.3	959.4	935.3	904.9	896.9
62.5°	878.1	876.4	862.1	850.5	841.5	846.9	854.0	830.8	810.3	803.1
65°	772.7	770.9	755.8	746.8	738.8	740.6	748.6	727.2	714.7	706.6
67.5°	670.9	664.6	649.5	644.1	634.3	637.8	643.2	626.2	614.6	607.5
70°	563.7	558.3	544.9	539.6	531.5	533.3	538.7	528.0	515.5	511.0
72.5°	454.7	453.8	441.3	434.2	429.7	430.6	435.1	429.7	418.1	414.5
75°	349.3	352.0	342.1	335.9	331.4	331.4	336.8	337.7	325.2	320.7
77.5°	257.3	257.3	249.2	250.1	243.0	243.0	246.6	250.1	236.7	234.1
80°	172.4	171.5	168.8	166.2	162.6	163.5	166.2	170.6	159.9	160.8
82.5°	101.8	101.8	101.8	100.1	97.4	96.5	100.1	103.6	96.5	96.5
85°	50.0	49.1	49.1	49.1	47.3	46.5	49.1	50.9	46.5	47.3
87.5°	17.0	16.1	16.1	17.0	16.1	16.1	16.1	16.1	15.2	16.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)