

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: P183610

Luminaire Tested: **LSM90M8030D010TEP**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P183610  
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: LSM90M8030D010TEP  
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: 9069.9 lumens  
Efficiency: N/A  
Efficacy: 92.9 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

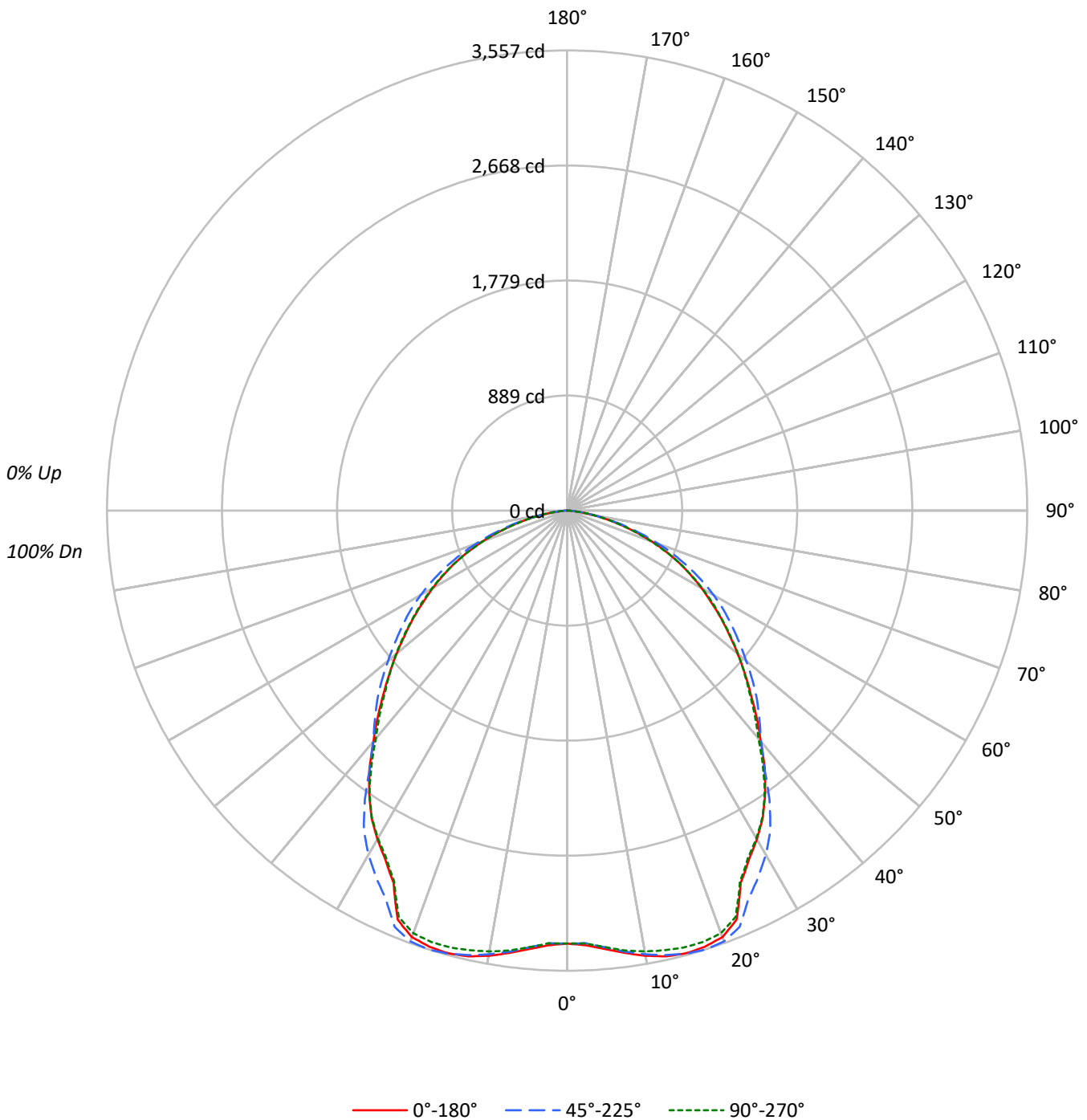
Input Watts (W): 97.58  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P183610

CATALOG NUMBER: LSM90M8030D010TEP

### Luminous Intensity Polar Plot





TEST NUMBER: P183610

CATALOG NUMBER: LSM90M8030D010TEP

**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°	36246	36246	36246
5°	36986	36842	36829
10°	38421	38303	38051
15°	39726	39753	39186
20°	40433	40835	40057
25°	37933	39589	37788
30°	36668	38401	36563
35°	35261	36025	35197
40°	32918	32935	32525
45°	30752	31804	30512
50°	28956	30438	29077
55°	27420	29378	27533
60°	26000	28323	26208
65°	24460	26561	24429
70°	21944	23698	21827
75°	18053	19468	18104
80°	13152	14056	13532
85°	7641	8088	7939



TEST NUMBER: P183610

CATALOG NUMBER: LSM90M8030D010TEP

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	328.3	3.6
10°-20°	1003.6	11.1
20°-30°	1507.0	16.6
30°-40°	1649.6	18.2
40°-50°	1613.6	17.8
50°-60°	1392.4	15.4
60°-70°	995.4	11.0
70°-80°	489.0	5.4
80°-90°	91.2	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°	2838.8	31.3
0°-40°	4488.4	49.5
0°-60°	7494.4	82.6
0°-90°	9069.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9069.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3347	3347	3347	3347	3347	
5°	3403	3432	3389	3416	3388	328
15°	3544	3592	3546	3550	3495	1000
25°	3175	3363	3313	3341	3163	1479
35°	2667	2626	2725	2595	2662	1661
45°	2008	2142	2077	2118	1992	1555
55°	1452	1584	1556	1568	1458	1299
65°	955	1006	1037	997	953	941
75°	432	456	465	447	433	463
85°	62	65	65	64	64	86
90°	0	0	0	0	0	



TEST NUMBER: P183610

CATALOG NUMBER: LSM90M8030D010TEP

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	3347.2	3347.2	3347.2	3347.2	3347.2	3347.2	3347.2	3347.2	3347.2	3347.2	3347.2
2.5°	3362.8	3390.6	3367.7	3362.8	3343.5	3389.3	3372.5	3376.1	3362.8	3365.2	3347.2
5°	3402.6	3431.5	3409.8	3403.8	3384.5	3431.5	3414.7	3417.1	3403.8	3407.4	3389.3
7.5°	3449.6	3479.7	3456.8	3453.2	3435.2	3482.2	3466.5	3468.9	3454.4	3456.8	3438.8
10°	3494.2	3526.8	3503.9	3501.4	3483.4	3534.0	3517.1	3519.5	3502.6	3503.9	3483.4
12.5°	3529.2	3562.9	3540.0	3540.0	3523.1	3571.4	3558.1	3560.5	3543.6	3543.6	3519.5
15°	3543.6	3578.6	3554.5	3558.1	3541.2	3591.8	3579.8	3581.0	3566.5	3570.1	3546.0
17.5°	3535.2	3570.1	3548.5	3550.9	3535.2	3587.0	3575.0	3579.8	3567.7	3577.4	3556.9
20°	3508.7	3540.0	3513.5	3515.9	3503.9	3555.7	3547.2	3555.7	3547.2	3561.7	3543.6
22.5°	3423.1	3452.0	3437.6	3453.2	3450.8	3506.3	3501.4	3508.7	3495.4	3502.6	3483.4
25°	3174.8	3212.2	3207.3	3251.9	3294.1	3362.8	3358.0	3360.4	3332.7	3335.1	3313.4
27.5°	3042.2	3073.6	3055.5	3057.9	3041.0	3079.6	3082.0	3142.3	3178.4	3211.0	3196.5
30°	2932.5	2956.6	2913.2	2883.1	2839.7	2878.3	2875.9	2928.9	2992.8	3068.7	3071.1
32.5°	2814.4	2821.6	2760.2	2719.2	2703.5	2744.5	2742.1	2757.8	2806.0	2887.9	2924.1
35°	2667.4	2673.4	2597.5	2585.4	2585.4	2626.4	2616.7	2621.6	2648.1	2701.1	2725.2
37.5°	2509.5	2501.0	2457.6	2460.1	2469.7	2507.1	2499.8	2499.8	2508.3	2532.4	2502.2
40°	2328.7	2338.3	2325.1	2337.1	2345.5	2381.7	2378.1	2380.5	2376.9	2363.6	2329.9
42.5°	2168.4	2192.5	2206.9	2221.4	2222.6	2257.6	2255.1	2264.8	2246.7	2211.8	2200.9
45°	2008.1	2037.0	2076.8	2105.7	2108.1	2141.8	2141.8	2144.3	2106.9	2081.6	2076.8
47.5°	1863.4	1893.6	1934.5	1977.9	1985.2	2020.1	2020.1	2014.1	1974.3	1958.6	1943.0
50°	1718.8	1757.4	1795.9	1847.7	1851.4	1877.9	1879.1	1873.1	1855.0	1835.7	1806.8
52.5°	1581.4	1628.4	1665.7	1707.9	1710.3	1732.0	1727.2	1732.0	1734.5	1712.8	1677.8
55°	1452.4	1500.6	1533.2	1563.3	1569.3	1583.8	1574.1	1589.8	1604.3	1585.0	1556.1
57.5°	1319.8	1371.6	1399.4	1419.9	1424.7	1436.7	1427.1	1447.6	1466.9	1454.8	1435.5
60°	1200.5	1241.5	1260.8	1280.0	1281.3	1293.3	1284.9	1305.4	1327.1	1321.0	1307.8
62.5°	1077.6	1106.5	1120.9	1141.4	1135.4	1147.5	1151.1	1169.2	1184.8	1186.0	1175.2
65°	954.6	970.3	982.3	994.4	996.8	1006.4	1010.1	1017.3	1041.4	1043.8	1036.6
67.5°	824.4	834.1	844.9	855.8	854.6	864.2	873.9	881.1	896.8	902.8	893.1
70°	693.1	705.1	711.1	716.0	714.8	724.4	732.8	738.9	753.3	756.9	748.5
72.5°	560.5	572.5	577.3	578.6	577.3	588.2	595.4	599.0	611.1	617.1	603.9
75°	431.5	447.2	449.6	447.2	446.0	455.6	459.2	465.3	473.7	474.9	465.3
77.5°	314.6	327.8	330.3	326.6	324.2	331.5	333.9	339.9	344.7	347.1	337.5
80°	210.9	224.2	223.0	221.8	218.2	223.0	226.6	229.0	232.6	232.6	225.4
82.5°	126.6	135.0	133.8	135.0	131.4	132.6	135.0	138.6	137.4	139.8	135.0
85°	61.5	65.1	65.1	65.1	63.9	65.1	66.3	68.7	66.3	68.7	65.1
87.5°	21.7	22.9	21.7	21.7	21.7	21.7	22.9	22.9	21.7	22.9	21.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P183610

CATALOG NUMBER: LSM90M8030D010TEP

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	3347.2	3347.2	3347.2	3347.2	3347.2	3347.2	3347.2	3347.2	3347.2	3347.2
2.5°	3372.5	3353.2	3372.5	3364.0	3374.9	3371.3	3372.5	3385.7	3355.6	3348.4
5°	3414.7	3394.2	3413.5	3407.4	3415.9	3412.3	3414.7	3427.9	3396.6	3388.1
7.5°	3462.9	3441.2	3460.5	3452.0	3460.5	3456.8	3458.1	3468.9	3436.4	3429.1
10°	3507.5	3484.6	3501.4	3493.0	3497.8	3494.2	3496.6	3503.9	3468.9	3460.5
12.5°	3542.4	3519.5	3536.4	3526.8	3529.2	3524.3	3523.1	3526.8	3490.6	3481.0
15°	3571.4	3548.5	3560.5	3550.9	3549.7	3542.4	3540.0	3541.2	3505.1	3495.4
17.5°	3579.8	3553.3	3560.5	3549.7	3546.0	3540.0	3537.6	3540.0	3505.1	3495.4
20°	3562.9	3531.6	3535.2	3521.9	3517.1	3512.3	3512.3	3515.9	3482.2	3476.1
22.5°	3505.1	3478.5	3487.0	3478.5	3473.7	3468.9	3460.5	3452.0	3408.6	3400.2
25°	3336.3	3318.2	3349.6	3354.4	3341.1	3315.8	3268.8	3232.7	3170.0	3162.7
27.5°	3212.2	3174.8	3137.4	3090.4	3062.7	3051.9	3059.1	3072.4	3039.8	3027.8
30°	3073.6	2992.8	2920.5	2872.3	2854.2	2851.8	2880.7	2915.7	2921.7	2924.1
32.5°	2901.2	2798.7	2743.3	2727.6	2715.6	2712.0	2721.6	2761.4	2786.7	2809.6
35°	2705.9	2634.8	2605.9	2607.1	2595.0	2590.2	2584.2	2608.3	2634.8	2662.5
37.5°	2523.9	2492.6	2484.2	2489.0	2475.7	2468.5	2461.3	2467.3	2475.7	2485.4
40°	2352.8	2360.0	2364.8	2368.4	2351.6	2346.8	2340.7	2338.3	2323.8	2300.9
42.5°	2206.9	2226.2	2247.9	2247.9	2229.8	2227.4	2228.6	2221.4	2178.0	2146.7
45°	2081.6	2088.8	2126.2	2133.4	2117.7	2114.1	2115.3	2092.4	2023.7	1992.4
47.5°	1958.6	1962.3	1996.0	2012.9	1996.0	1992.4	1996.0	1947.8	1873.1	1857.4
50°	1834.5	1844.1	1858.6	1874.3	1858.6	1857.4	1853.8	1808.0	1734.5	1726.0
52.5°	1709.1	1728.4	1721.2	1724.8	1715.2	1716.4	1720.0	1673.0	1605.5	1591.0
55°	1581.4	1599.5	1581.4	1571.7	1568.1	1571.7	1579.0	1535.6	1482.5	1458.4
57.5°	1454.8	1465.7	1446.4	1427.1	1421.1	1429.5	1435.5	1399.4	1353.6	1335.5
60°	1323.4	1321.0	1305.4	1287.3	1275.2	1284.9	1294.5	1262.0	1221.0	1210.1
62.5°	1184.8	1182.4	1163.1	1147.5	1135.4	1142.6	1152.3	1120.9	1093.2	1083.6
65°	1042.6	1040.2	1019.7	1007.6	996.8	999.2	1010.1	981.1	964.3	953.4
67.5°	905.2	896.8	876.3	869.0	855.8	860.6	867.8	844.9	829.3	819.6
70°	760.6	753.3	735.2	728.0	717.2	719.6	726.8	712.3	695.5	689.4
72.5°	613.5	612.3	595.4	585.8	579.8	581.0	587.0	579.8	564.1	559.3
75°	471.3	474.9	461.6	453.2	447.2	447.2	454.4	455.6	438.7	432.7
77.5°	347.1	347.1	336.3	337.5	327.8	327.8	332.7	337.5	319.4	315.8
80°	232.6	231.4	227.8	224.2	219.4	220.6	224.2	230.2	215.8	217.0
82.5°	137.4	137.4	137.4	135.0	131.4	130.2	135.0	139.8	130.2	130.2
85°	67.5	66.3	66.3	66.3	63.9	62.7	66.3	68.7	62.7	63.9
87.5°	22.9	21.7	21.7	22.9	21.7	21.7	21.7	21.7	20.5	21.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)