

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: P#

Luminaire Tested: **LD4C80D010 EX4C809040 4LBCSSQMMS**

Issue Date: 5/25/2022

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P209253)
Test Lab: INNOVATION CENTER
Issue Date: 5/25/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C80D010 EX4C809040 4LBCSSQMMMS
Description: 4 INCH 8000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MMS FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

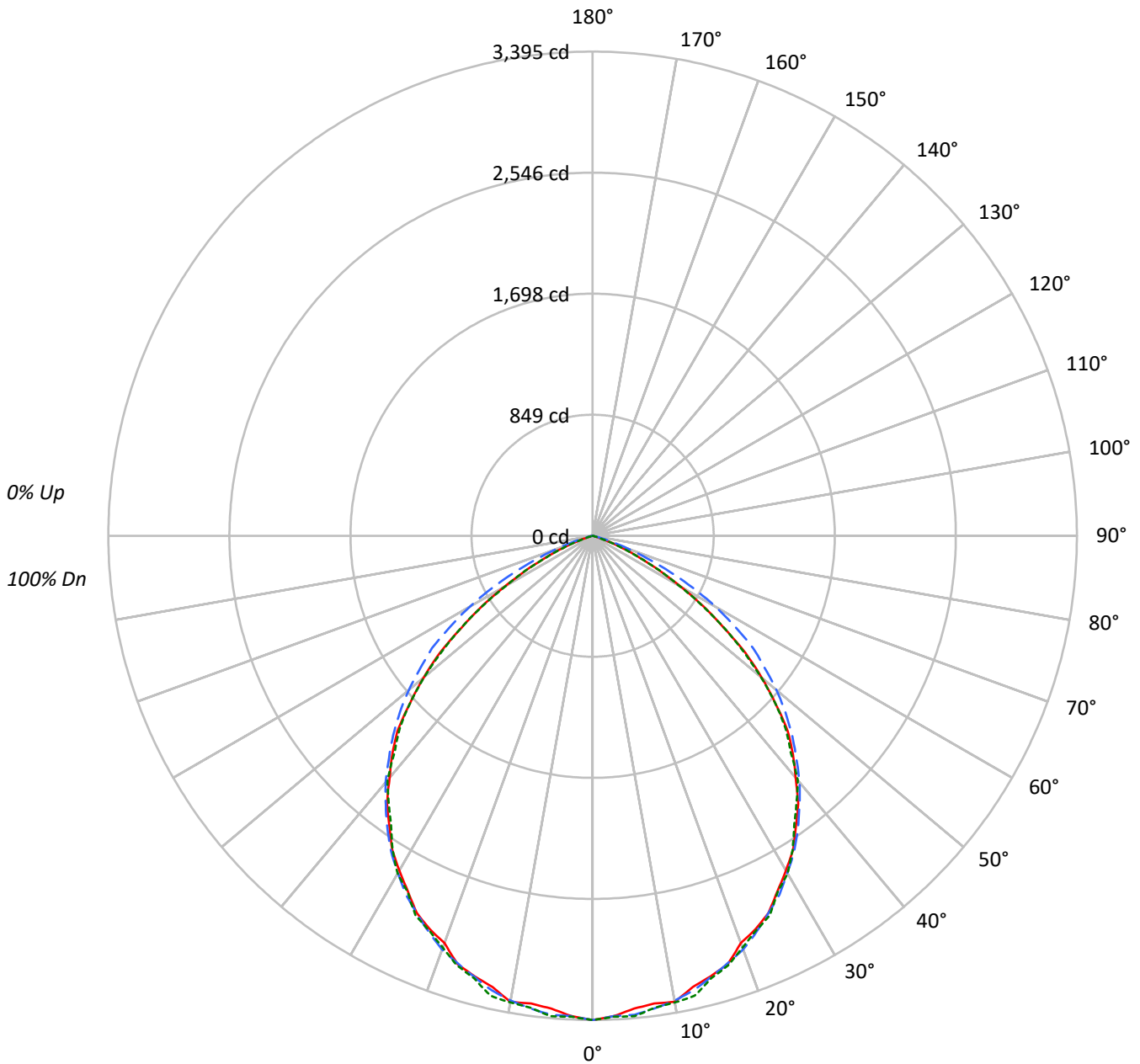
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7253.0 lumens
Efficiency: N/A
Efficacy: 81.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 89.5
Input Voltage (V):
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									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	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	111	108	104	101	109	105	102	100	101	99	96	97	95	94	94	92	91	89																			
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77																			
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	67																			
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61	59																			
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52																			
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46																			
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41																			
8	65	53	45	40	64	52	45	39	51	44	39	50	44	39	49	43	39	37																			
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	33																			
10	57	45	38	33	56	44	37	33	44	37	32	43	37	32	42	36	32	31																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	327618	327618	327618
5°	322332	326526	327456
10°	325109	324168	325569
15°	319417	319886	320855
20°	311987	316936	315458
25°	310640	310640	312695
30°	301981	304132	304678
35°	292558	295409	290285
40°	278832	284286	281855
45°	263892	269828	261258
50°	232400	252665	230959
55°	188225	231223	189049
60°	137728	191723	134949
65°	83699	136531	81485
70°	32641	73491	31315
75°	3579	19796	3579
80°	2723	2723	2723
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	320.5	4.4
10°-20°	906.9	12.5
20°-30°	1345.6	18.6
30°-40°	1559.2	21.5
40°-50°	1494.9	20.6
50°-60°	1099.2	15.2
60°-70°	474.7	6.5
70°-80°	51.2	0.7
80°-90°	0.7	0.0
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°	2573.0	35.5
0°-40°	4132.3	57.0
0°-60°	6726.4	92.7
0°-90°	7253.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7253.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3395	3395	3395	3395	3395	
5°	3328	3362	3371	3376	3381	317
15°	3198	3217	3202	3207	3212	901
25°	2918	2913	2918	2923	2937	1336
35°	2484	2498	2508	2503	2464	1553
45°	1934	1939	1977	1948	1915	1470
55°	1119	1235	1374	1230	1124	1007
65°	367	458	598	453	357	377
75°	10	15	53	10	10	30
85°	0	0	0	0	0	1
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°	3395.4	3395.4	3395.4	3395.4	3395.4	3395.4	3395.4	3395.4	3395.4	3395.4	3395.4
2.5°	3371.2	3409.7	3414.6	3390.4	3380.8	3366.4	3400.1	3376.1	3385.7	3376.1	3371.2
5°	3327.9	3371.2	3376.1	3376.1	3366.4	3361.5	3376.1	3371.2	3366.4	3356.8	3371.2
7.5°	3308.6	3332.6	3356.8	3327.9	3342.2	3337.5	3371.2	3356.8	3351.9	3351.9	3342.2
10°	3318.2	3313.3	3332.6	3303.7	3313.3	3303.7	3332.6	3332.6	3322.9	3313.3	3308.6
12.5°	3240.9	3279.5	3279.5	3274.7	3265.1	3250.5	3279.5	3298.9	3269.8	3269.8	3265.1
15°	3197.6	3207.2	3212.0	3212.0	3207.2	3216.9	3231.2	3212.0	3216.9	3192.7	3202.3
17.5°	3149.4	3130.1	3144.5	3134.8	3139.7	3149.4	3168.7	3168.7	3139.7	3134.8	3144.5
20°	3038.4	3096.3	3101.2	3072.2	3077.0	3077.0	3110.8	3081.9	3101.2	3077.0	3086.6
22.5°	2985.3	3023.8	3028.8	2990.2	3014.2	2985.3	3019.1	2975.6	3023.8	2990.2	3004.6
25°	2917.8	2913.1	2927.4	2908.1	2913.1	2913.1	2937.1	2917.8	2932.3	2913.1	2917.8
27.5°	2807.0	2845.6	2840.6	2821.4	2831.0	2826.3	2874.5	2821.4	2850.3	2826.3	2835.9
30°	2710.4	2744.2	2734.6	2715.3	2715.3	2700.7	2753.9	2739.3	2734.6	2734.6	2729.7
32.5°	2614.0	2618.9	2609.2	2614.0	2618.9	2599.6	2642.9	2623.6	2618.9	2623.6	2628.5
35°	2483.7	2483.7	2493.3	2479.0	2498.3	2498.3	2536.8	2512.6	2507.9	2493.3	2507.9
37.5°	2368.0	2353.6	2358.4	2358.4	2368.0	2377.6	2396.9	2387.3	2387.3	2372.9	2382.6
40°	2213.7	2204.1	2218.4	2218.4	2233.0	2233.0	2252.3	2242.6	2257.0	2257.0	2257.0
42.5°	2078.7	2078.7	2069.1	2083.5	2088.4	2083.5	2117.3	2112.4	2117.3	2107.7	2112.4
45°	1933.9	1933.9	1924.3	1919.5	1943.6	1938.8	1977.4	1962.8	1982.1	1972.5	1977.4
47.5°	1736.2	1760.4	1745.8	1760.4	1789.3	1794.2	1818.2	1808.6	1827.8	1813.5	1832.8
50°	1548.2	1548.2	1562.6	1581.9	1610.8	1615.7	1644.6	1663.9	1673.6	1678.3	1683.2
52.5°	1350.5	1345.5	1360.1	1384.1	1408.3	1427.6	1456.5	1485.5	1504.7	1533.7	1519.1
55°	1118.9	1128.5	1143.1	1172.0	1210.6	1234.6	1258.8	1297.3	1331.2	1345.5	1374.5
57.5°	921.1	911.5	921.1	959.7	1003.2	1022.4	1056.3	1094.9	1143.1	1172.0	1181.6
60°	713.7	718.6	728.3	762.1	795.8	824.7	839.2	901.8	945.3	974.2	993.5
62.5°	525.8	535.4	545.1	574.0	607.6	631.8	655.9	709.0	747.5	776.5	795.8
65°	366.6	371.3	385.9	400.2	434.1	458.1	477.4	520.9	559.4	583.6	598.0
67.5°	226.7	231.4	241.1	260.5	284.5	303.8	323.1	352.0	385.9	409.9	414.8
70°	115.7	120.6	125.3	139.9	159.2	168.8	183.2	207.4	231.4	250.7	260.5
72.5°	38.6	38.6	43.5	53.1	62.8	72.4	77.1	101.3	120.6	130.3	135.0
75°	9.6	9.6	9.6	9.6	9.6	14.6	14.6	28.9	38.6	48.2	53.1
77.5°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	9.6	9.6
80°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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°	3395.4	3395.4	3395.4	3395.4	3395.4	3395.4	3395.4	3395.4	3395.4	3395.4
2.5°	3395.4	3385.7	3380.8	3385.7	3385.7	3380.8	3395.4	3414.6	3438.6	3376.1
5°	3390.4	3380.8	3390.4	3361.5	3376.1	3366.4	3385.7	3380.8	3400.1	3380.8
7.5°	3376.1	3356.8	3361.5	3347.1	3366.4	3342.2	3356.8	3385.7	3366.4	3337.5
10°	3327.9	3318.2	3351.9	3303.7	3294.0	3313.3	3351.9	3322.9	3313.3	3322.9
12.5°	3279.5	3279.5	3294.0	3255.4	3260.2	3269.8	3289.1	3269.8	3279.5	3303.7
15°	3226.5	3216.9	3240.9	3212.0	3207.2	3197.6	3216.9	3216.9	3226.5	3212.0
17.5°	3163.8	3149.4	3149.4	3139.7	3134.8	3159.0	3168.7	3173.4	3178.3	3159.0
20°	3086.6	3081.9	3096.3	3081.9	3086.6	3091.5	3091.5	3081.9	3125.2	3072.2
22.5°	3004.6	3019.1	2999.8	2990.2	2999.8	3009.5	3009.5	3014.2	3004.6	2994.9
25°	2922.7	2932.3	2937.1	2908.1	2922.7	2908.1	2942.0	2946.7	2927.4	2937.1
27.5°	2850.3	2835.9	2831.0	2811.7	2821.4	2816.6	2821.4	2821.4	2850.3	2811.7
30°	2739.3	2724.9	2729.7	2715.3	2720.0	2715.3	2720.0	2720.0	2739.3	2734.6
32.5°	2633.2	2618.9	2623.6	2609.2	2609.2	2614.0	2604.3	2604.3	2618.9	2609.2
35°	2531.9	2498.3	2503.0	2498.3	2503.0	2483.7	2483.7	2479.0	2488.6	2464.4
37.5°	2387.3	2372.9	2368.0	2363.3	2368.0	2358.4	2368.0	2353.6	2368.0	2348.7
40°	2257.0	2247.4	2252.3	2223.4	2223.4	2228.1	2218.4	2213.7	2218.4	2237.7
42.5°	2126.9	2107.7	2098.0	2088.4	2093.1	2078.7	2073.8	2064.2	2073.8	2054.5
45°	1972.5	1972.5	1967.8	1943.6	1948.5	1948.5	1929.2	1909.9	1914.6	1914.6
47.5°	1832.8	1823.1	1818.2	1794.2	1789.3	1784.6	1765.1	1750.7	1750.7	1736.2
50°	1678.3	1668.7	1654.3	1630.1	1620.4	1591.5	1577.2	1557.9	1538.6	1538.6
52.5°	1533.7	1499.8	1480.5	1442.0	1427.6	1413.0	1374.5	1360.1	1345.5	1331.2
55°	1360.1	1331.2	1292.6	1249.1	1229.8	1205.6	1167.1	1138.1	1118.9	1123.8
57.5°	1191.3	1143.1	1104.5	1046.6	1022.4	1007.9	969.3	930.7	911.5	911.5
60°	983.9	945.3	897.1	844.0	824.7	800.7	752.3	728.3	713.7	699.3
62.5°	786.1	757.2	713.7	646.2	631.8	607.6	574.0	545.1	530.5	530.5
65°	588.4	559.4	520.9	472.7	453.4	434.1	405.2	376.2	361.7	356.9
67.5°	414.8	381.0	347.3	308.7	294.2	284.5	255.6	236.3	226.7	221.8
70°	250.7	231.4	207.4	178.5	163.9	154.3	135.0	120.6	115.7	111.0
72.5°	130.3	115.7	96.4	77.1	67.5	57.9	48.2	38.6	33.8	33.8
75°	48.2	38.6	24.2	14.6	9.6	9.6	9.6	9.6	9.6	9.6
77.5°	9.6	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
80°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - - 90°-270°









(END OF REPORT)