

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: P840258

Luminaire Tested: **LD4C80D010 EU4809027 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: P840258
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 EU4809027 4LBCSSQMMS
Description: 4 INCH 8000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MMS FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

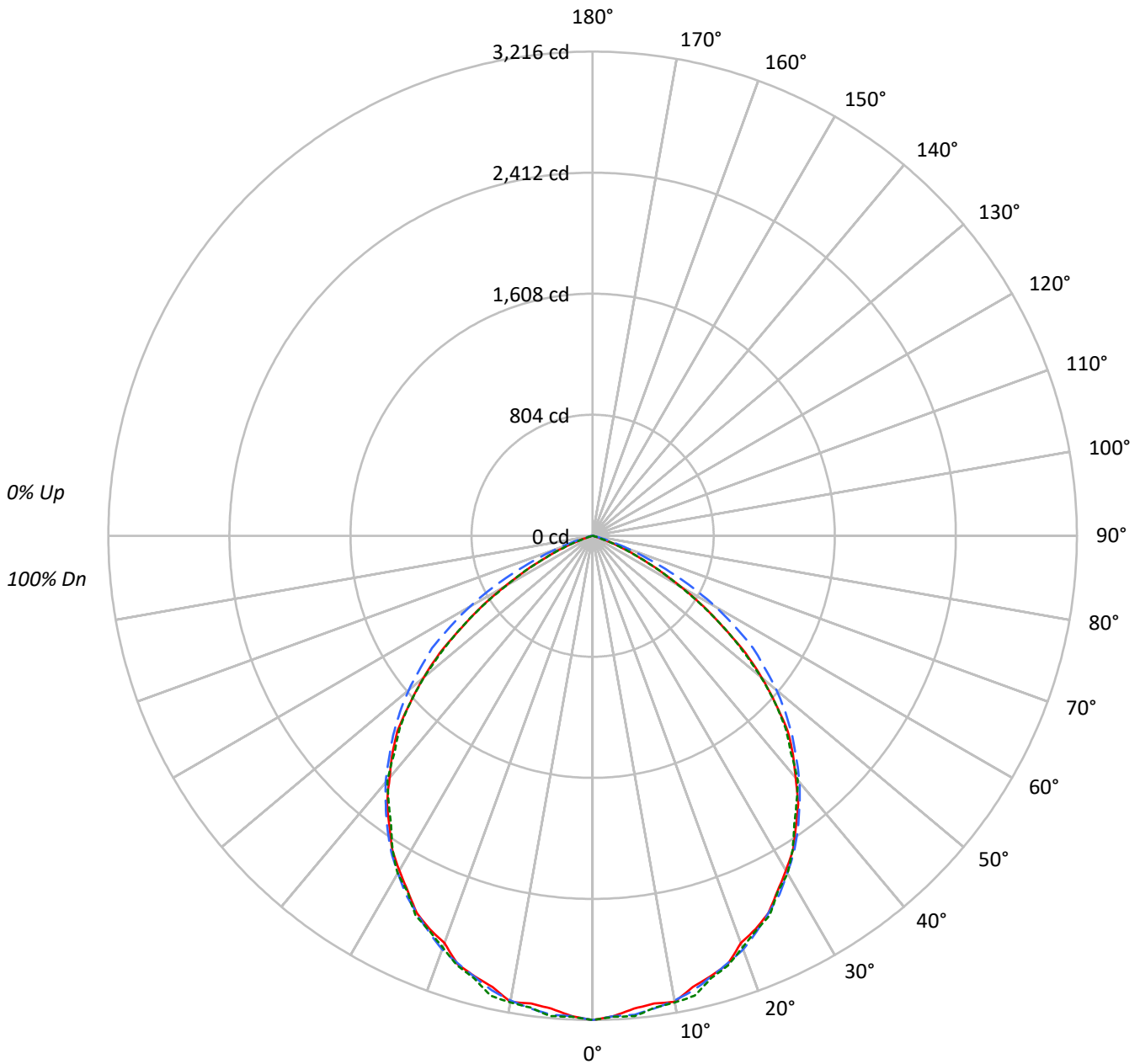
Lumens per Lamp: N/A
Luminaire Lumens: 6870.0 lumens
Efficiency: N/A
Efficacy: 76.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 89.5
Input Voltage (V):
Input Current (A_{in}): 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°	310318	310318	310318
5°	305304	309276	310167
10°	307943	307051	308384
15°	302545	302994	303913
20°	295517	300199	298803
25°	294234	294234	296182
30°	286038	288065	288589
35°	277104	279813	274960
40°	264107	269272	266979
45°	249960	255582	247463
50°	220136	239320	218755
55°	178283	219010	179057
60°	130453	181611	127828
65°	79270	129316	77192
70°	30920	69626	29650
75°	3393	18752	3393
80°	2612	2612	2612
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	303.6	4.4
10°-20°	859.0	12.5
20°-30°	1274.6	18.6
30°-40°	1476.9	21.5
40°-50°	1416.0	20.6
50°-60°	1041.1	15.2
60°-70°	449.7	6.5
70°-80°	48.6	0.7
80°-90°	0.6	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°	2437.2	35.5
0°-40°	3914.0	57.0
0°-60°	6371.2	92.7
0°-90°	6870.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6870.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3216	3216	3216	3216	3216	
5°	3152	3184	3193	3198	3202	301
15°	3029	3047	3033	3038	3042	854
25°	2764	2759	2764	2768	2782	1265
35°	2352	2366	2376	2371	2334	1471
45°	1832	1836	1873	1846	1814	1392
55°	1060	1169	1302	1165	1064	954
65°	347	434	566	429	338	357
75°	9	14	50	9	9	28
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°	3216.1	3216.1	3216.1	3216.1	3216.1	3216.1	3216.1	3216.1	3216.1	3216.1	3216.1
2.5°	3193.1	3229.7	3234.3	3211.4	3202.3	3188.7	3220.5	3197.8	3206.9	3197.8	3193.1
5°	3152.1	3193.1	3197.8	3197.8	3188.7	3184.0	3197.8	3193.1	3188.7	3179.5	3193.1
7.5°	3133.9	3156.6	3179.5	3152.1	3165.7	3161.3	3193.1	3179.5	3174.9	3174.9	3165.7
10°	3143.0	3138.3	3156.6	3129.2	3138.3	3129.2	3156.6	3156.6	3147.5	3138.3	3133.9
12.5°	3069.8	3106.3	3106.3	3101.8	3092.7	3078.9	3106.3	3124.7	3097.2	3097.2	3092.7
15°	3028.7	3037.9	3042.4	3042.4	3037.9	3047.0	3060.6	3042.4	3047.0	3024.1	3033.2
17.5°	2983.1	2964.8	2978.4	2969.3	2973.9	2983.1	3001.3	3001.3	2973.9	2969.3	2978.4
20°	2878.0	2932.8	2937.4	2910.0	2914.5	2914.5	2946.5	2919.1	2937.4	2914.5	2923.6
22.5°	2827.6	2864.2	2868.8	2832.3	2855.0	2827.6	2859.7	2818.5	2864.2	2832.3	2845.9
25°	2763.7	2759.2	2772.8	2754.6	2759.2	2759.2	2782.0	2763.7	2777.5	2759.2	2763.7
27.5°	2658.8	2695.3	2690.6	2672.4	2681.5	2677.0	2722.7	2672.4	2699.8	2677.0	2686.2
30°	2567.3	2599.3	2590.2	2571.9	2571.9	2558.1	2608.4	2594.7	2590.2	2590.2	2585.5
32.5°	2475.9	2480.6	2471.5	2475.9	2480.6	2462.3	2503.3	2485.1	2480.6	2485.1	2489.7
35°	2352.5	2352.5	2361.7	2348.1	2366.3	2366.3	2402.9	2379.9	2375.5	2361.7	2375.5
37.5°	2243.0	2229.3	2233.8	2233.8	2243.0	2252.1	2270.3	2261.2	2261.2	2247.6	2256.7
40°	2096.8	2087.7	2101.3	2101.3	2115.1	2115.1	2133.4	2124.2	2137.8	2137.8	2137.8
42.5°	1969.0	1969.0	1959.8	1973.4	1978.1	1973.4	2005.5	2000.8	2005.5	1996.4	2000.8
45°	1831.8	1831.8	1822.7	1818.2	1840.9	1836.4	1873.0	1859.2	1877.5	1868.3	1873.0
47.5°	1644.5	1667.4	1653.6	1667.4	1694.8	1699.4	1722.2	1713.1	1731.3	1717.7	1736.0
50°	1466.5	1466.5	1480.1	1498.3	1525.7	1530.4	1557.8	1576.1	1585.2	1589.7	1594.3
52.5°	1279.2	1274.5	1288.3	1311.0	1334.0	1352.2	1379.6	1407.0	1425.3	1452.7	1438.9
55°	1059.8	1068.9	1082.7	1110.1	1146.6	1169.4	1192.3	1228.8	1260.9	1274.5	1301.9
57.5°	872.5	863.3	872.5	909.0	950.2	968.5	1000.5	1037.0	1082.7	1110.1	1119.2
60°	676.0	680.7	689.8	721.9	753.7	781.1	794.9	854.2	895.4	922.8	941.1
62.5°	498.0	507.1	516.3	543.7	575.6	598.5	621.2	671.5	708.1	735.5	753.7
65°	347.2	351.7	365.5	379.1	411.2	433.9	452.2	493.4	529.9	552.8	566.4
67.5°	214.7	219.2	228.3	246.8	269.5	287.8	306.0	333.4	365.5	388.2	392.9
70°	109.6	114.3	118.7	132.5	150.8	159.9	173.5	196.4	219.2	237.5	246.8
72.5°	36.5	36.5	41.2	50.3	59.5	68.6	73.1	96.0	114.3	123.4	127.9
75°	9.1	9.1	9.1	9.1	9.1	13.8	13.8	27.4	36.5	45.7	50.3
77.5°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	9.1	9.1
80°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
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°	3216.1	3216.1	3216.1	3216.1	3216.1	3216.1	3216.1	3216.1	3216.1	3216.1
2.5°	3216.1	3206.9	3202.3	3206.9	3206.9	3202.3	3216.1	3234.3	3257.1	3197.8
5°	3211.4	3202.3	3211.4	3184.0	3197.8	3188.7	3206.9	3202.3	3220.5	3202.3
7.5°	3197.8	3179.5	3184.0	3170.4	3188.7	3165.7	3179.5	3206.9	3188.7	3161.3
10°	3152.1	3143.0	3174.9	3129.2	3120.1	3138.3	3174.9	3147.5	3138.3	3147.5
12.5°	3106.3	3106.3	3120.1	3083.5	3088.0	3097.2	3115.4	3097.2	3106.3	3129.2
15°	3056.1	3047.0	3069.8	3042.4	3037.9	3028.7	3047.0	3047.0	3056.1	3042.4
17.5°	2996.7	2983.1	2983.1	2973.9	2969.3	2992.2	3001.3	3005.8	3010.5	2992.2
20°	2923.6	2919.1	2932.8	2919.1	2923.6	2928.3	2928.3	2919.1	2960.2	2910.0
22.5°	2845.9	2859.7	2841.4	2832.3	2841.4	2850.6	2850.6	2855.0	2845.9	2836.8
25°	2768.4	2777.5	2782.0	2754.6	2768.4	2754.6	2786.6	2791.1	2772.8	2782.0
27.5°	2699.8	2686.2	2681.5	2663.2	2672.4	2667.9	2672.4	2672.4	2699.8	2663.2
30°	2594.7	2581.0	2585.5	2571.9	2576.4	2571.9	2576.4	2576.4	2594.7	2590.2
32.5°	2494.2	2480.6	2485.1	2471.5	2471.5	2475.9	2466.8	2466.8	2480.6	2471.5
35°	2398.2	2366.3	2370.8	2366.3	2370.8	2352.5	2352.5	2348.1	2357.2	2334.3
37.5°	2261.2	2247.6	2243.0	2238.5	2243.0	2233.8	2243.0	2229.3	2243.0	2224.7
40°	2137.8	2128.7	2133.4	2106.0	2106.0	2110.4	2101.3	2096.8	2101.3	2119.6
42.5°	2014.6	1996.4	1987.2	1978.1	1982.6	1969.0	1964.3	1955.2	1964.3	1946.0
45°	1868.3	1868.3	1863.8	1840.9	1845.6	1845.6	1827.3	1809.0	1813.5	1813.5
47.5°	1736.0	1726.8	1722.2	1699.4	1694.8	1690.3	1671.9	1658.3	1658.3	1644.5
50°	1589.7	1580.5	1566.9	1544.0	1534.9	1507.5	1493.9	1475.6	1457.3	1457.3
52.5°	1452.7	1420.6	1402.4	1365.8	1352.2	1338.4	1301.9	1288.3	1274.5	1260.9
55°	1288.3	1260.9	1224.4	1183.2	1164.9	1142.0	1105.4	1078.0	1059.8	1064.4
57.5°	1128.4	1082.7	1046.2	991.4	968.5	954.7	918.1	881.6	863.3	863.3
60°	931.9	895.4	849.7	799.4	781.1	758.4	712.6	689.8	676.0	662.4
62.5°	744.6	717.2	676.0	612.1	598.5	575.6	543.7	516.3	502.5	502.5
65°	557.3	529.9	493.4	447.7	429.4	411.2	383.8	356.4	342.6	338.1
67.5°	392.9	360.8	329.0	292.4	278.6	269.5	242.1	223.8	214.7	210.1
70°	237.5	219.2	196.4	169.0	155.3	146.1	127.9	114.3	109.6	105.1
72.5°	123.4	109.6	91.3	73.1	63.9	54.8	45.7	36.5	32.1	32.1
75°	45.7	36.5	22.9	13.8	9.1	9.1	9.1	9.1	9.1	9.1
77.5°	9.1	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
80°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
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)