

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: P840231

Luminaire Tested: **LD4C65D010 EU4659030 4LBCSSQMW**

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: P840231
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: LD4C65D010 EU4659030 4LBCSSQMW
Description: 4 INCH 6500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MW FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

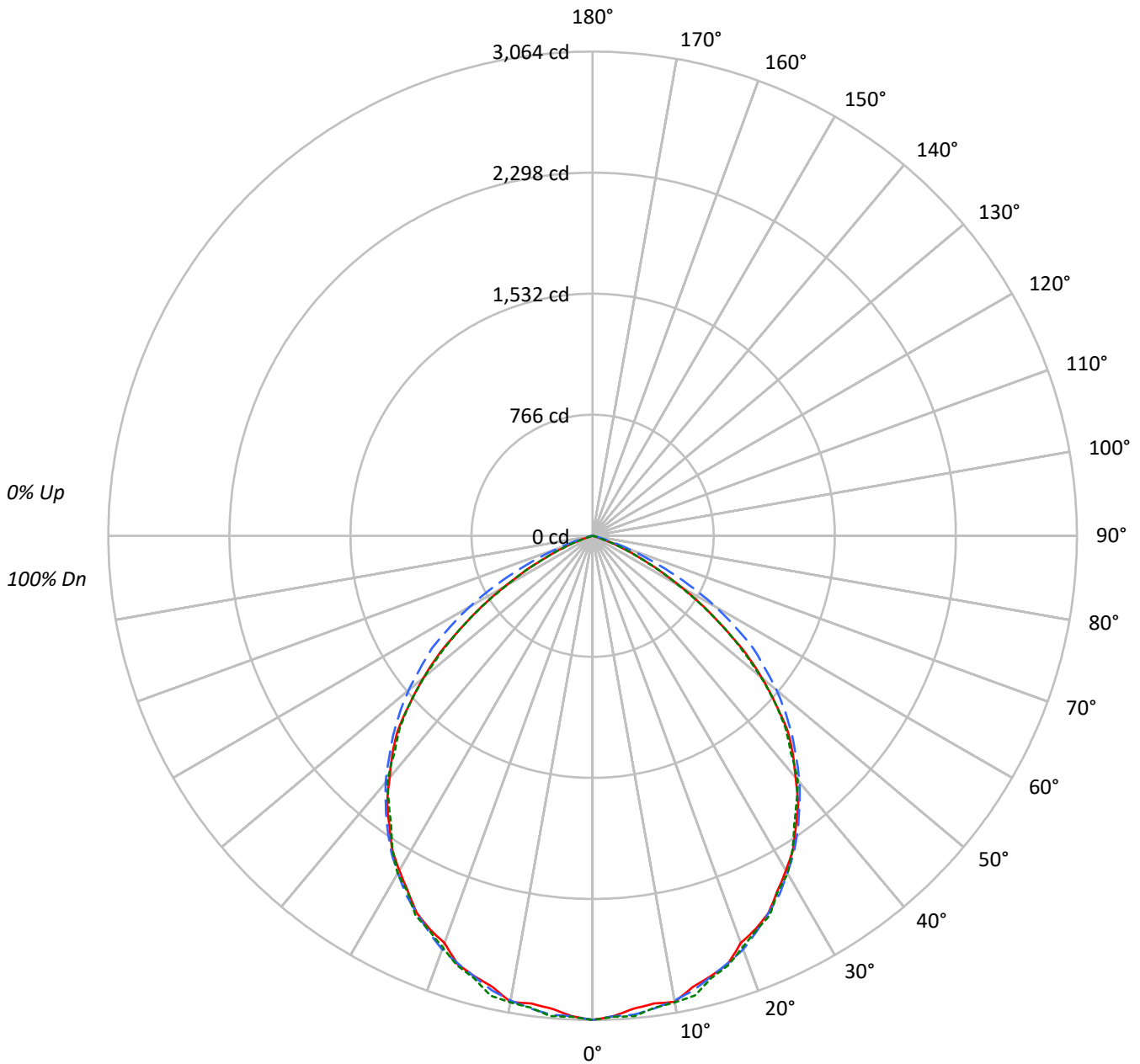
Lumens per Lamp: N/A
Luminaire Lumens: 6545.0 lumens
Efficiency: N/A
Efficacy: 90.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 72.4
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				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	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100
1	111	108	104	101	109	105	102	100	101	99	96	97	95	94	94	92	91	89			89
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77			77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	67			67
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61	59			59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52			52
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46			46
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41			41
8	65	53	45	40	64	52	45	39	51	44	39	50	44	39	49	43	39	37			37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	33			33
10	57	45	38	33	56	44	37	33	44	37	32	43	37	32	42	36	32	31			31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	295632	295632	295632
5°	290863	294650	295493
10°	293374	292521	293795
15°	288240	288660	289529
20°	281532	285998	284674
25°	280319	280319	282171
30°	272501	274439	274930
35°	264005	266573	261956
40°	251612	256537	254346
45°	238129	243492	235755
50°	209719	228002	208413
55°	169838	208647	170595
60°	124278	173005	121788
65°	75526	123197	73539
70°	29453	66325	28240
75°	3243	17857	3243
80°	2445	2445	2445
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	289.2	4.4
10°-20°	818.4	12.5
20°-30°	1214.3	18.6
30°-40°	1407.0	21.5
40°-50°	1349.0	20.6
50°-60°	991.9	15.2
60°-70°	428.4	6.5
70°-80°	46.2	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°	2321.9	35.5
0°-40°	3728.9	57.0
0°-60°	6069.8	92.7
0°-90°	6545.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6545.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3064	3064	3064	3064	3064	
5°	3003	3033	3042	3046	3051	286
15°	2886	2903	2890	2894	2898	813
25°	2633	2629	2633	2637	2650	1206
35°	2241	2254	2263	2259	2224	1401
45°	1745	1750	1784	1758	1728	1327
55°	1010	1114	1240	1110	1014	909
65°	331	413	540	409	322	340
75°	9	13	48	9	9	27
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°	3063.9	3063.9	3063.9	3063.9	3063.9	3063.9	3063.9	3063.9	3063.9	3063.9	3063.9
2.5°	3042.1	3076.9	3081.3	3059.5	3050.8	3037.8	3068.2	3046.5	3055.2	3046.5	3042.1
5°	3003.0	3042.1	3046.5	3046.5	3037.8	3033.4	3046.5	3042.1	3037.8	3029.1	3042.1
7.5°	2985.6	3007.3	3029.1	3003.0	3016.0	3011.7	3042.1	3029.1	3024.7	3024.7	3016.0
10°	2994.3	2989.9	3007.3	2981.2	2989.9	2981.2	3007.3	3007.3	2998.6	2989.9	2985.6
12.5°	2924.5	2959.3	2959.3	2955.1	2946.4	2933.2	2959.3	2976.9	2950.6	2950.6	2946.4
15°	2885.5	2894.2	2898.4	2898.4	2894.2	2902.9	2915.8	2898.4	2902.9	2881.0	2889.7
17.5°	2842.0	2824.6	2837.5	2828.8	2833.3	2842.0	2859.4	2859.4	2833.3	2828.8	2837.5
20°	2741.8	2794.0	2798.5	2772.4	2776.6	2776.6	2807.2	2781.1	2798.5	2776.6	2785.3
22.5°	2693.9	2728.7	2733.1	2698.3	2720.0	2693.9	2724.4	2685.2	2728.7	2698.3	2711.3
25°	2633.0	2628.7	2641.7	2624.3	2628.7	2628.7	2650.4	2633.0	2646.1	2628.7	2633.0
27.5°	2533.0	2567.8	2563.4	2546.0	2554.7	2550.4	2593.9	2546.0	2572.1	2550.4	2559.1
30°	2445.8	2476.3	2467.6	2450.2	2450.2	2437.1	2485.0	2471.9	2467.6	2467.6	2463.2
32.5°	2358.8	2363.2	2354.5	2358.8	2363.2	2345.8	2384.9	2367.5	2363.2	2367.5	2371.9
35°	2241.3	2241.3	2250.0	2237.0	2254.4	2254.4	2289.2	2267.4	2263.1	2250.0	2263.1
37.5°	2136.8	2123.9	2128.1	2128.1	2136.8	2145.5	2162.9	2154.2	2154.2	2141.3	2150.0
40°	1997.6	1988.9	2001.9	2001.9	2015.0	2015.0	2032.4	2023.7	2036.7	2036.7	2036.7
42.5°	1875.8	1875.8	1867.1	1880.1	1884.5	1880.1	1910.6	1906.2	1910.6	1901.9	1906.2
45°	1745.1	1745.1	1736.4	1732.2	1753.8	1749.6	1784.4	1771.2	1788.6	1779.9	1784.4
47.5°	1566.7	1588.5	1575.4	1588.5	1614.6	1619.1	1640.7	1632.0	1649.4	1636.5	1653.9
50°	1397.1	1397.1	1410.1	1427.5	1453.6	1458.0	1484.1	1501.5	1510.2	1514.5	1518.9
52.5°	1218.6	1214.2	1227.3	1249.0	1270.8	1288.2	1314.4	1340.5	1357.9	1384.0	1370.8
55°	1009.6	1018.3	1031.5	1057.6	1092.4	1114.1	1135.9	1170.7	1201.2	1214.2	1240.3
57.5°	831.2	822.5	831.2	866.0	905.2	922.6	953.2	988.0	1031.5	1057.6	1066.3
60°	644.0	648.5	657.2	687.7	718.1	744.2	757.3	813.8	853.0	879.1	896.5
62.5°	474.5	483.2	491.9	518.0	548.3	570.2	591.8	639.8	674.6	700.7	718.1
65°	330.8	335.1	348.2	361.2	391.7	413.4	430.8	470.0	504.8	526.7	539.6
67.5°	204.6	208.8	217.5	235.1	256.8	274.2	291.6	317.7	348.2	369.9	374.3
70°	104.4	108.8	113.1	126.2	143.7	152.4	165.3	187.2	208.8	226.2	235.1
72.5°	34.8	34.8	39.2	47.9	56.6	65.3	69.6	91.4	108.8	117.5	121.8
75°	8.7	8.7	8.7	8.7	8.7	13.1	13.1	26.1	34.8	43.5	47.9
77.5°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	8.7	8.7
80°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
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°	3063.9	3063.9	3063.9	3063.9	3063.9	3063.9	3063.9	3063.9	3063.9	3063.9
2.5°	3063.9	3055.2	3050.8	3055.2	3055.2	3050.8	3063.9	3081.3	3103.0	3046.5
5°	3059.5	3050.8	3059.5	3033.4	3046.5	3037.8	3055.2	3050.8	3068.2	3050.8
7.5°	3046.5	3029.1	3033.4	3020.4	3037.8	3016.0	3029.1	3055.2	3037.8	3011.7
10°	3003.0	2994.3	3024.7	2981.2	2972.5	2989.9	3024.7	2998.6	2989.9	2998.6
12.5°	2959.3	2959.3	2972.5	2937.7	2941.9	2950.6	2968.0	2950.6	2959.3	2981.2
15°	2911.6	2902.9	2924.5	2898.4	2894.2	2885.5	2902.9	2902.9	2911.6	2898.4
17.5°	2854.9	2842.0	2842.0	2833.3	2828.8	2850.7	2859.4	2863.6	2868.1	2850.7
20°	2785.3	2781.1	2794.0	2781.1	2785.3	2789.8	2789.8	2781.1	2820.1	2772.4
22.5°	2711.3	2724.4	2707.0	2698.3	2707.0	2715.7	2715.7	2720.0	2711.3	2702.6
25°	2637.4	2646.1	2650.4	2624.3	2637.4	2624.3	2654.8	2659.1	2641.7	2650.4
27.5°	2572.1	2559.1	2554.7	2537.3	2546.0	2541.7	2546.0	2546.0	2572.1	2537.3
30°	2471.9	2458.9	2463.2	2450.2	2454.5	2450.2	2454.5	2454.5	2471.9	2467.6
32.5°	2376.2	2363.2	2367.5	2354.5	2354.5	2358.8	2350.1	2350.1	2363.2	2354.5
35°	2284.8	2254.4	2258.7	2254.4	2258.7	2241.3	2241.3	2237.0	2245.7	2223.9
37.5°	2154.2	2141.3	2136.8	2132.6	2136.8	2128.1	2136.8	2123.9	2136.8	2119.4
40°	2036.7	2028.0	2032.4	2006.3	2006.3	2010.6	2001.9	1997.6	2001.9	2019.3
42.5°	1919.3	1901.9	1893.2	1884.5	1888.8	1875.8	1871.4	1862.7	1871.4	1854.0
45°	1779.9	1779.9	1775.7	1753.8	1758.3	1758.3	1740.9	1723.5	1727.7	1727.7
47.5°	1653.9	1645.2	1640.7	1619.1	1614.6	1610.4	1592.8	1579.8	1579.8	1566.7
50°	1514.5	1505.8	1492.8	1471.0	1462.3	1436.2	1423.2	1405.8	1388.4	1388.4
52.5°	1384.0	1353.4	1336.0	1301.2	1288.2	1275.1	1240.3	1227.3	1214.2	1201.2
55°	1227.3	1201.2	1166.4	1127.2	1109.8	1088.0	1053.2	1027.0	1009.6	1014.1
57.5°	1075.0	1031.5	996.7	944.5	922.6	909.5	874.7	839.9	822.5	822.5
60°	887.8	853.0	809.5	761.6	744.2	722.5	678.8	657.2	644.0	631.1
62.5°	709.4	683.3	644.0	583.1	570.2	548.3	518.0	491.9	478.7	478.7
65°	530.9	504.8	470.0	426.5	409.1	391.7	365.6	339.5	326.4	322.1
67.5°	374.3	343.8	313.4	278.6	265.5	256.8	230.7	213.3	204.6	200.1
70°	226.2	208.8	187.2	161.1	147.9	139.2	121.8	108.8	104.4	100.1
72.5°	117.5	104.4	87.0	69.6	60.9	52.2	43.5	34.8	30.5	30.5
75°	43.5	34.8	21.8	13.1	8.7	8.7	8.7	8.7	8.7	8.7
77.5°	8.7	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
80°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
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)