

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: P840262

Luminaire Tested: **LD4C80D010 EU4809035 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: P840262
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 EU4809035 4LBCSSQMMS
Description: 4 INCH 8000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MMS FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

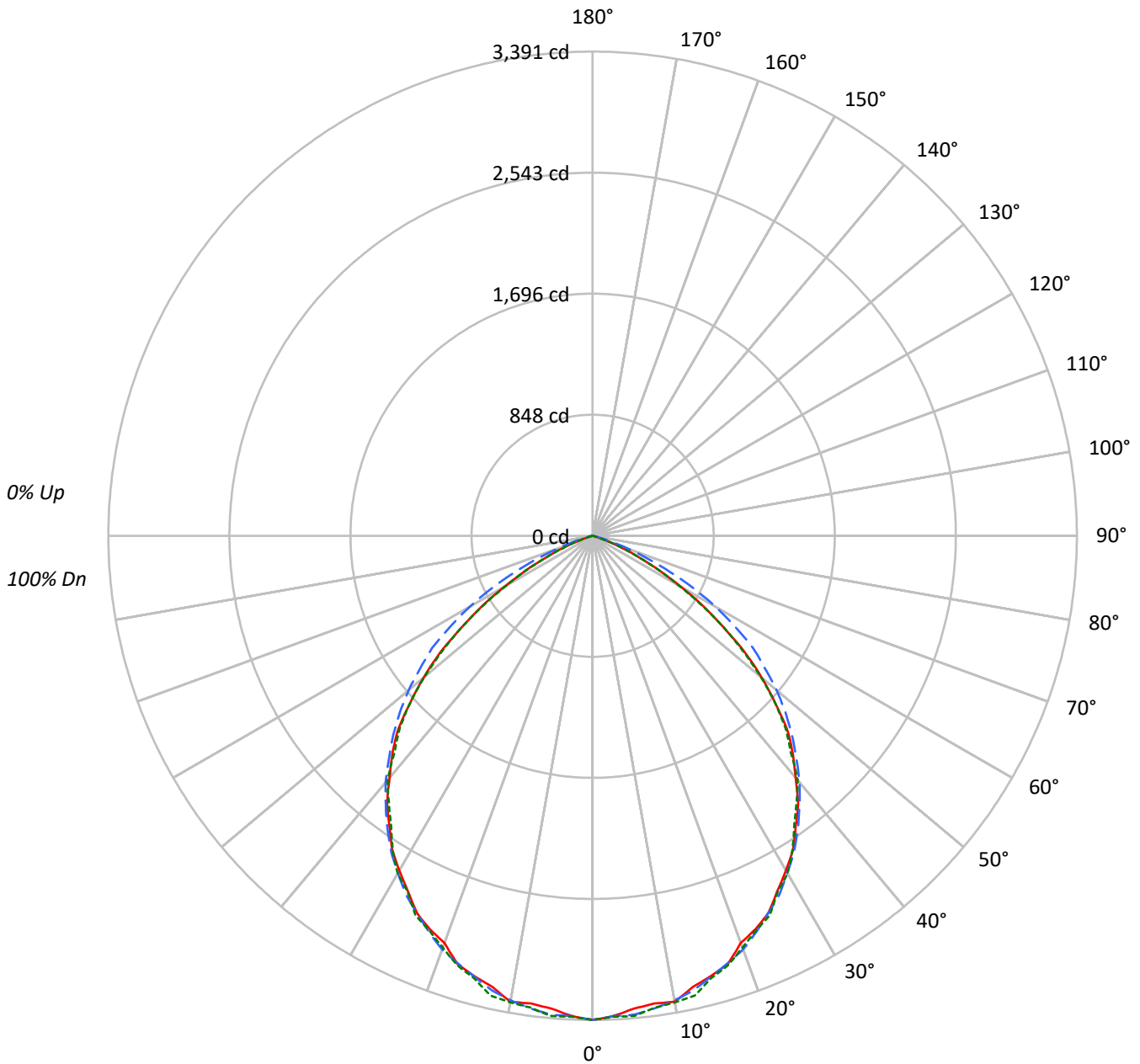
Lumens per Lamp: N/A
Luminaire Lumens: 7243.0 lumens
Efficiency: N/A
Efficacy: 80.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P840262

CATALOG NUMBER: LD4C80D010 EU4809035 4LBCSSQMMS

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°	327165	327165	327165
5°	321886	326071	327000
10°	324658	323717	325128
15°	318977	319447	320406
20°	311556	316505	315026
25°	310214	310214	312258
30°	301558	303708	304254
35°	292157	294996	289884
40°	278454	283895	281464
45°	263524	269459	260904
50°	232085	252320	230644
55°	187956	230903	188780
60°	137535	191453	134776
65°	83585	136348	81393
70°	32584	73406	31258
75°	3579	19796	3579
80°	2723	2723	2723
85°	0	0	0



TEST NUMBER: P840262

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	320.0	4.4
10°-20°	905.6	12.5
20°-30°	1343.8	18.6
30°-40°	1557.1	21.5
40°-50°	1492.9	20.6
50°-60°	1097.6	15.2
60°-70°	474.1	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°	2569.5	35.5
0°-40°	4126.5	57.0
0°-60°	6717.1	92.7
0°-90°	7243.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7243.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3391	3391	3391	3391	3391	
5°	3323	3357	3366	3371	3376	317
15°	3193	3212	3198	3203	3208	900
25°	2914	2909	2914	2919	2933	1334
35°	2480	2495	2504	2500	2461	1551
45°	1931	1936	1975	1946	1912	1468
55°	1117	1233	1373	1228	1122	1005
65°	366	458	597	453	356	376
75°	10	14	53	10	10	30
85°	0	0	0	0	0	1
90°	0	0	0	0	0	



TEST NUMBER: P840262

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	3390.7	3390.7	3390.7	3390.7	3390.7	3390.7	3390.7	3390.7	3390.7	3390.7	3390.7
2.5°	3366.5	3405.0	3409.9	3385.8	3376.1	3361.8	3395.4	3371.4	3381.0	3371.4	3366.5
5°	3323.3	3366.5	3371.4	3371.4	3361.8	3356.9	3371.4	3366.5	3361.8	3352.2	3366.5
7.5°	3304.0	3328.0	3352.2	3323.3	3337.6	3332.9	3366.5	3352.2	3347.2	3347.2	3337.6
10°	3313.6	3308.7	3328.0	3299.1	3308.7	3299.1	3328.0	3328.0	3318.4	3308.7	3304.0
12.5°	3236.4	3274.9	3274.9	3270.2	3260.6	3246.1	3274.9	3294.4	3265.3	3265.3	3260.6
15°	3193.2	3202.8	3207.5	3207.5	3202.8	3212.4	3226.8	3207.5	3212.4	3188.3	3197.9
17.5°	3145.0	3125.8	3140.1	3130.5	3135.4	3145.0	3164.3	3164.3	3135.4	3130.5	3140.1
20°	3034.2	3092.0	3096.9	3068.0	3072.7	3072.7	3106.5	3077.6	3096.9	3072.7	3082.4
22.5°	2981.2	3019.7	3024.6	2986.1	3010.0	2981.2	3015.0	2971.5	3019.7	2986.1	3000.4
25°	2913.8	2909.0	2923.4	2904.1	2909.0	2909.0	2933.0	2913.8	2928.3	2909.0	2913.8
27.5°	2803.1	2841.6	2836.7	2817.5	2827.1	2822.4	2870.5	2817.5	2846.4	2822.4	2832.0
30°	2706.6	2740.4	2730.8	2711.6	2711.6	2697.0	2750.1	2735.5	2730.8	2730.8	2725.9
32.5°	2610.4	2615.3	2605.6	2610.4	2615.3	2596.0	2639.2	2620.0	2615.3	2620.0	2624.9
35°	2480.3	2480.3	2489.9	2475.6	2494.8	2494.8	2533.3	2509.2	2504.4	2489.9	2504.4
37.5°	2364.7	2350.4	2355.1	2355.1	2364.7	2374.4	2393.6	2384.0	2384.0	2369.6	2379.3
40°	2210.7	2201.0	2215.4	2215.4	2229.9	2229.9	2249.2	2239.6	2253.9	2253.9	2253.9
42.5°	2075.9	2075.9	2066.2	2080.6	2085.5	2080.6	2114.4	2109.5	2114.4	2104.8	2109.5
45°	1931.2	1931.2	1921.6	1916.9	1940.9	1936.2	1974.7	1960.1	1979.4	1969.8	1974.7
47.5°	1733.8	1757.9	1743.4	1757.9	1786.8	1791.7	1815.7	1806.1	1825.3	1811.0	1830.2
50°	1546.1	1546.1	1560.4	1579.7	1608.6	1613.5	1642.4	1661.6	1671.3	1676.0	1680.9
52.5°	1348.6	1343.7	1358.2	1382.2	1406.4	1425.6	1454.5	1483.4	1502.7	1531.6	1517.0
55°	1117.3	1127.0	1141.5	1170.4	1208.9	1232.9	1257.0	1295.6	1329.3	1343.7	1372.6
57.5°	919.8	910.2	919.8	958.4	1001.8	1021.0	1054.8	1093.3	1141.5	1170.4	1180.0
60°	712.7	717.6	727.3	761.1	794.7	823.5	838.1	900.6	944.0	972.9	992.1
62.5°	525.1	534.7	544.3	573.2	606.8	631.0	654.9	708.0	746.5	775.4	794.7
65°	366.1	370.8	385.3	399.7	433.5	457.5	476.7	520.1	558.7	582.8	597.2
67.5°	226.4	231.1	240.7	260.2	284.1	303.4	322.7	351.5	385.3	409.3	414.2
70°	115.5	120.5	125.2	139.7	159.0	168.6	182.9	207.1	231.1	250.3	260.2
72.5°	38.5	38.5	43.4	53.1	62.7	72.3	77.0	101.2	120.5	130.1	134.8
75°	9.6	9.6	9.6	9.6	9.6	14.5	14.5	28.9	38.5	48.1	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



TEST NUMBER: P840262

CATALOG NUMBER: LD4C80D010 EU4809035 4LBCSSQMMS

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	3390.7	3390.7	3390.7	3390.7	3390.7	3390.7	3390.7	3390.7	3390.7	3390.7
2.5°	3390.7	3381.0	3376.1	3381.0	3381.0	3376.1	3390.7	3409.9	3433.9	3371.4
5°	3385.8	3376.1	3385.8	3356.9	3371.4	3361.8	3381.0	3376.1	3395.4	3376.1
7.5°	3371.4	3352.2	3356.9	3342.5	3361.8	3337.6	3352.2	3381.0	3361.8	3332.9
10°	3323.3	3313.6	3347.2	3299.1	3289.5	3308.7	3347.2	3318.4	3308.7	3318.4
12.5°	3274.9	3274.9	3289.5	3251.0	3255.7	3265.3	3284.6	3265.3	3274.9	3299.1
15°	3222.1	3212.4	3236.4	3207.5	3202.8	3193.2	3212.4	3212.4	3222.1	3207.5
17.5°	3159.4	3145.0	3145.0	3135.4	3130.5	3154.7	3164.3	3169.0	3173.9	3154.7
20°	3082.4	3077.6	3092.0	3077.6	3082.4	3087.3	3087.3	3077.6	3120.9	3068.0
22.5°	3000.4	3015.0	2995.7	2986.1	2995.7	3005.3	3005.3	3010.0	3000.4	2990.8
25°	2918.7	2928.3	2933.0	2904.1	2918.7	2904.1	2937.9	2942.6	2923.4	2933.0
27.5°	2846.4	2832.0	2827.1	2807.8	2817.5	2812.8	2817.5	2817.5	2846.4	2807.8
30°	2735.5	2721.2	2725.9	2711.6	2716.3	2711.6	2716.3	2716.3	2735.5	2730.8
32.5°	2629.6	2615.3	2620.0	2605.6	2605.6	2610.4	2600.7	2600.7	2615.3	2605.6
35°	2528.4	2494.8	2499.5	2494.8	2499.5	2480.3	2480.3	2475.6	2485.2	2461.0
37.5°	2384.0	2369.6	2364.7	2360.0	2364.7	2355.1	2364.7	2350.4	2364.7	2345.5
40°	2253.9	2244.3	2249.2	2220.3	2220.3	2225.0	2215.4	2210.7	2215.4	2234.6
42.5°	2124.0	2104.8	2095.1	2085.5	2090.2	2075.9	2071.0	2061.3	2071.0	2051.7
45°	1969.8	1969.8	1965.0	1940.9	1945.8	1945.8	1926.5	1907.3	1912.0	1912.0
47.5°	1830.2	1820.6	1815.7	1791.7	1786.8	1782.1	1762.6	1748.3	1748.3	1733.8
50°	1676.0	1666.4	1652.0	1627.8	1618.2	1589.3	1575.0	1555.7	1536.5	1536.5
52.5°	1531.6	1497.8	1478.5	1440.0	1425.6	1411.1	1372.6	1358.2	1343.7	1329.3
55°	1358.2	1329.3	1290.8	1247.4	1228.1	1204.0	1165.5	1136.6	1117.3	1122.2
57.5°	1189.6	1141.5	1103.0	1045.2	1021.0	1006.5	968.0	929.5	910.2	910.2
60°	982.5	944.0	895.9	842.8	823.5	799.6	751.2	727.3	712.7	698.4
62.5°	785.0	756.1	712.7	645.3	631.0	606.8	573.2	544.3	529.8	529.8
65°	587.5	558.7	520.1	472.0	452.7	433.5	404.6	375.7	361.2	356.5
67.5°	414.2	380.4	346.8	308.3	293.8	284.1	255.3	236.0	226.4	221.5
70°	250.3	231.1	207.1	178.2	163.7	154.1	134.8	120.5	115.5	110.8
72.5°	130.1	115.5	96.3	77.0	67.4	57.8	48.1	38.5	33.8	33.8
75°	48.1	38.5	24.2	14.5	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)