

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: P840265

Luminaire Tested: **LD4C80D010 EU4809040 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: P840265
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 EU4809040 4LBCSSQMW
Description: 4 INCH 8000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MW FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

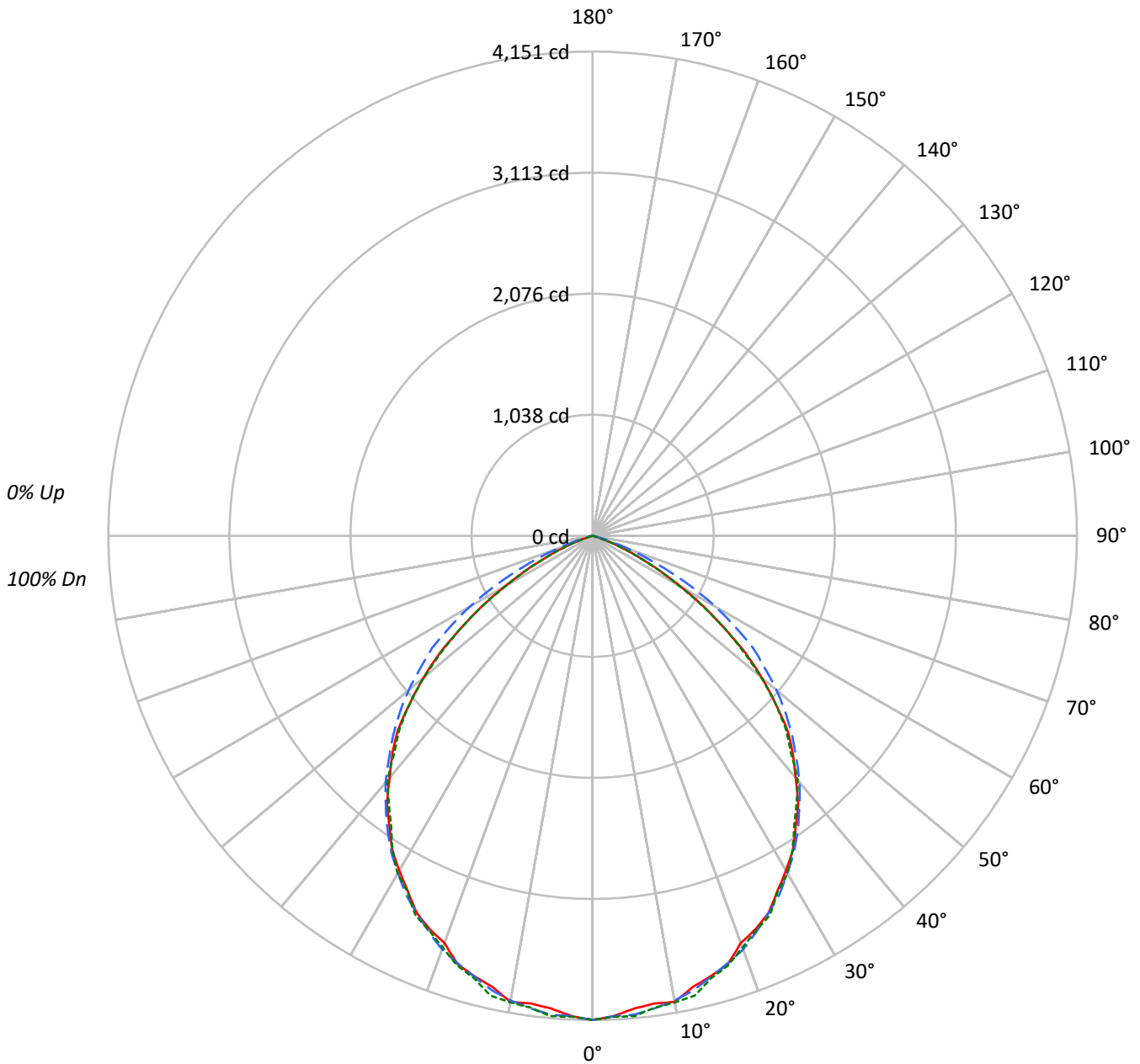
Lumens per Lamp: N/A
Luminaire Lumens: 8867.0 lumens
Efficiency: N/A
Efficacy: 99.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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					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								
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°	400516	400516	400516
5°	394055	399179	400322
10°	397455	396299	398023
15°	390500	391070	392248
20°	381410	387468	385661
25°	379767	379767	382279
30°	369176	371806	372474
35°	357661	361148	354881
40°	340878	347554	344581
45°	322623	329868	319402
50°	284113	308897	282357
55°	230096	282666	231122
60°	168373	234391	164996
65°	102330	166919	99635
70°	39919	89854	38283
75°	4399	24195	4399
80°	3334	3334	3334
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	391.8	4.4
10°-20°	1108.7	12.5
20°-30°	1645.1	18.6
30°-40°	1906.2	21.5
40°-50°	1827.6	20.6
50°-60°	1343.8	15.2
60°-70°	580.4	6.5
70°-80°	62.7	0.7
80°-90°	0.8	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°	3145.6	35.5
0°-40°	5051.8	57.0
0°-60°	8223.2	92.7
0°-90°	8867.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8867.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4151	4151	4151	4151	4151	
5°	4068	4110	4121	4127	4133	388
15°	3909	3933	3915	3921	3927	1102
25°	3567	3561	3567	3573	3591	1633
35°	3036	3054	3066	3060	3013	1899
45°	2364	2370	2417	2382	2341	1797
55°	1368	1509	1680	1504	1374	1231
65°	448	560	731	554	436	461
75°	12	18	65	12	12	36
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°	4150.9	4150.9	4150.9	4150.9	4150.9	4150.9	4150.9	4150.9	4150.9	4150.9	4150.9
2.5°	4121.3	4168.5	4174.5	4144.9	4133.1	4115.6	4156.7	4127.3	4139.1	4127.3	4121.3
5°	4068.4	4121.3	4127.3	4127.3	4115.6	4109.5	4127.3	4121.3	4115.6	4103.8	4121.3
7.5°	4044.8	4074.2	4103.8	4068.4	4086.0	4080.2	4121.3	4103.8	4097.8	4097.8	4086.0
10°	4056.6	4050.6	4074.2	4038.8	4050.6	4038.8	4074.2	4074.2	4062.4	4050.6	4044.8
12.5°	3962.1	4009.2	4009.2	4003.5	3991.7	3973.9	4009.2	4033.0	3997.4	3997.4	3991.7
15°	3909.2	3920.9	3926.7	3926.7	3920.9	3932.7	3950.3	3926.7	3932.7	3903.1	3914.9
17.5°	3850.2	3826.6	3844.2	3832.4	3838.4	3850.2	3873.8	3873.8	3838.4	3832.4	3844.2
20°	3714.5	3785.3	3791.3	3755.9	3761.7	3761.7	3803.1	3767.7	3791.3	3761.7	3773.5
22.5°	3649.6	3696.7	3702.7	3655.6	3685.0	3649.6	3691.0	3637.8	3696.7	3655.6	3673.2
25°	3567.1	3561.3	3578.9	3555.3	3561.3	3561.3	3590.7	3567.1	3584.9	3561.3	3567.1
27.5°	3431.6	3478.8	3472.8	3449.2	3461.0	3455.2	3514.1	3449.2	3484.6	3455.2	3467.0
30°	3313.5	3354.9	3343.1	3319.5	3319.5	3301.7	3366.7	3348.9	3343.1	3343.1	3337.1
32.5°	3195.6	3201.7	3189.9	3195.6	3201.7	3178.1	3231.0	3207.4	3201.7	3207.4	3213.4
35°	3036.4	3036.4	3048.2	3030.6	3054.2	3054.2	3101.3	3071.8	3066.0	3048.2	3066.0
37.5°	2894.9	2877.4	2883.2	2883.2	2894.9	2906.7	2930.3	2918.5	2918.5	2900.9	2912.7
40°	2706.3	2694.5	2712.1	2712.1	2729.9	2729.9	2753.5	2741.7	2759.3	2759.3	2759.3
42.5°	2541.3	2541.3	2529.5	2547.1	2553.1	2547.1	2588.5	2582.4	2588.5	2576.7	2582.4
45°	2364.3	2364.3	2352.5	2346.7	2376.0	2370.3	2417.4	2399.6	2423.2	2411.4	2417.4
47.5°	2122.5	2152.1	2134.3	2152.1	2187.4	2193.5	2222.8	2211.0	2234.6	2217.0	2240.6
50°	1892.7	1892.7	1910.3	1933.9	1969.3	1975.3	2010.6	2034.2	2046.0	2051.8	2057.8
52.5°	1651.0	1645.0	1662.8	1692.1	1721.7	1745.3	1780.6	1816.0	1839.6	1875.0	1857.2
55°	1367.8	1379.6	1397.4	1432.8	1479.9	1509.3	1538.9	1586.0	1627.4	1645.0	1680.3
57.5°	1126.1	1114.3	1126.1	1173.2	1226.4	1250.0	1291.3	1338.5	1397.4	1432.8	1444.6
60°	872.5	878.5	890.3	931.7	972.8	1008.2	1026.0	1102.5	1155.7	1191.0	1214.6
62.5°	642.8	654.6	666.4	701.7	742.9	772.4	801.8	866.7	913.9	949.3	972.8
65°	448.2	453.9	471.7	489.3	530.7	560.0	583.6	636.8	683.9	713.5	731.1
67.5°	277.1	282.9	294.7	318.5	347.9	371.4	395.0	430.4	471.7	501.1	507.1
70°	141.5	147.5	153.2	171.0	194.6	206.4	224.0	253.6	282.9	306.5	318.5
72.5°	47.2	47.2	53.2	64.9	76.7	88.5	94.3	123.9	147.5	159.3	165.0
75°	11.8	11.8	11.8	11.8	11.8	17.8	17.8	35.4	47.2	58.9	64.9
77.5°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	11.8	11.8
80°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
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°	4150.9	4150.9	4150.9	4150.9	4150.9	4150.9	4150.9	4150.9	4150.9	4150.9
2.5°	4150.9	4139.1	4133.1	4139.1	4139.1	4133.1	4150.9	4174.5	4203.8	4127.3
5°	4144.9	4133.1	4144.9	4109.5	4127.3	4115.6	4139.1	4133.1	4156.7	4133.1
7.5°	4127.3	4103.8	4109.5	4092.0	4115.6	4086.0	4103.8	4139.1	4115.6	4080.2
10°	4068.4	4056.6	4097.8	4038.8	4027.0	4050.6	4097.8	4062.4	4050.6	4062.4
12.5°	4009.2	4009.2	4027.0	3979.9	3985.7	3997.4	4021.0	3997.4	4009.2	4038.8
15°	3944.5	3932.7	3962.1	3926.7	3920.9	3909.2	3932.7	3932.7	3944.5	3926.7
17.5°	3867.8	3850.2	3850.2	3838.4	3832.4	3862.0	3873.8	3879.6	3885.6	3862.0
20°	3773.5	3767.7	3785.3	3767.7	3773.5	3779.5	3779.5	3767.7	3820.6	3755.9
22.5°	3673.2	3691.0	3667.4	3655.6	3667.4	3679.2	3679.2	3685.0	3673.2	3661.4
25°	3573.1	3584.9	3590.7	3555.3	3573.1	3555.3	3596.7	3602.4	3578.9	3590.7
27.5°	3484.6	3467.0	3461.0	3437.4	3449.2	3443.4	3449.2	3449.2	3484.6	3437.4
30°	3348.9	3331.3	3337.1	3319.5	3325.3	3319.5	3325.3	3325.3	3348.9	3343.1
32.5°	3219.2	3201.7	3207.4	3189.9	3189.9	3195.6	3183.9	3183.9	3201.7	3189.9
35°	3095.3	3054.2	3060.0	3054.2	3060.0	3036.4	3036.4	3030.6	3042.4	3012.8
37.5°	2918.5	2900.9	2894.9	2889.2	2894.9	2883.2	2894.9	2877.4	2894.9	2871.4
40°	2759.3	2747.5	2753.5	2718.1	2718.1	2723.9	2712.1	2706.3	2712.1	2735.7
42.5°	2600.2	2576.7	2564.9	2553.1	2558.9	2541.3	2535.3	2523.5	2535.3	2511.7
45°	2411.4	2411.4	2405.6	2376.0	2382.1	2382.1	2358.5	2334.9	2340.7	2340.7
47.5°	2240.6	2228.8	2222.8	2193.5	2187.4	2181.7	2157.9	2140.3	2140.3	2122.5
50°	2051.8	2040.0	2022.4	1992.8	1981.0	1945.7	1928.1	1904.5	1881.0	1881.0
52.5°	1875.0	1833.6	1810.0	1762.9	1745.3	1727.5	1680.3	1662.8	1645.0	1627.4
55°	1662.8	1627.4	1580.3	1527.1	1503.5	1473.9	1426.8	1391.4	1367.8	1373.9
57.5°	1456.4	1397.4	1350.3	1279.6	1250.0	1232.2	1185.0	1137.9	1114.3	1114.3
60°	1202.8	1155.7	1096.7	1031.8	1008.2	978.8	919.7	890.3	872.5	855.0
62.5°	961.1	925.7	872.5	790.0	772.4	742.9	701.7	666.4	648.6	648.6
65°	719.3	683.9	636.8	577.8	554.3	530.7	495.3	460.0	442.2	436.4
67.5°	507.1	465.7	424.6	377.4	359.6	347.9	312.5	288.9	277.1	271.1
70°	306.5	282.9	253.6	218.2	200.4	188.6	165.0	147.5	141.5	135.7
72.5°	159.3	141.5	117.9	94.3	82.5	70.7	58.9	47.2	41.4	41.4
75°	58.9	47.2	29.6	17.8	11.8	11.8	11.8	11.8	11.8	11.8
77.5°	11.8	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
80°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
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)