

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: P840259

Luminaire Tested: **LD4C80D010 EU4809027 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: P840259  
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 4LBCSSQMW  
Description: 4 INCH 8000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS  
AND 4LBCSSQ TRIM WITH MW FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

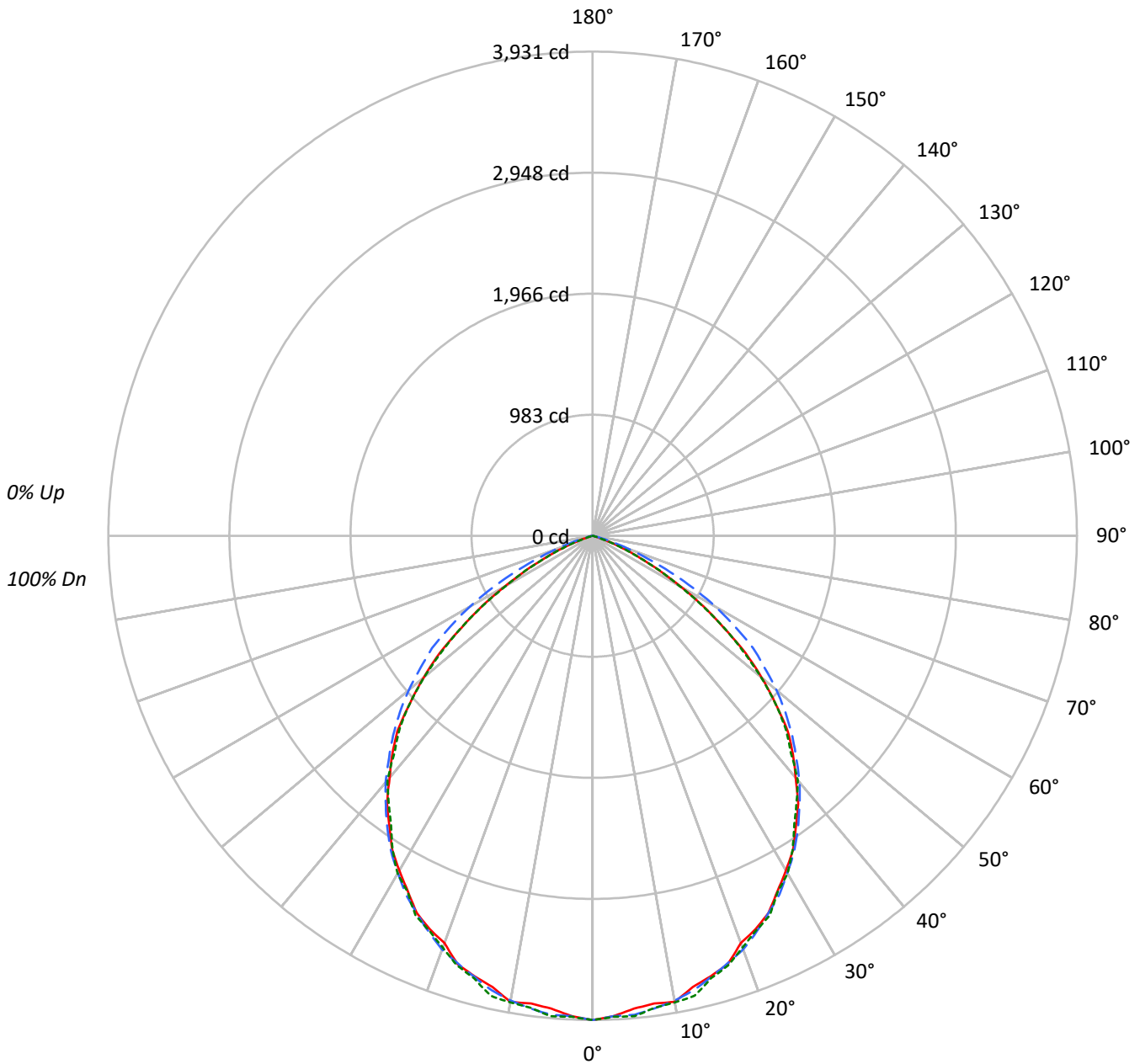
Lumens per Lamp: N/A  
Luminaire Lumens: 8398.0 lumens  
Efficiency: N/A  
Efficacy: 93.8 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 89.5  
Input Voltage (V):  
Input Current (A<sub>in</sub>): 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°	379336	379336	379336
5°	373211	378064	379149
10°	376429	375342	376968
15°	369843	370392	371501
20°	361243	366973	365268
25°	359677	359677	362051
30°	349656	352141	352776
35°	338744	342042	336117
40°	322854	329164	326355
45°	305552	312429	302509
50°	269087	292550	267421
55°	217933	267727	218892
60°	159477	222002	156254
65°	96919	158083	94361
70°	37803	85114	36252
75°	4175	22927	4175
80°	3167	3167	3167
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	371.1	4.4
10°-20°	1050.1	12.5
20°-30°	1558.1	18.6
30°-40°	1805.4	21.5
40°-50°	1730.9	20.6
50°-60°	1272.7	15.2
60°-70°	549.7	6.5
70°-80°	59.4	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°	2979.2	35.5
0°-40°	4784.6	57.0
0°-60°	7788.2	92.7
0°-90°	8398.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8398.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3931	3931	3931	3931	3931	
5°	3853	3892	3903	3909	3914	368
15°	3702	3725	3708	3714	3719	1043
25°	3378	3373	3378	3384	3401	1547
35°	2876	2893	2904	2898	2854	1798
45°	2239	2245	2290	2256	2217	1702
55°	1296	1430	1592	1424	1301	1166
65°	424	530	692	525	413	436
75°	11	17	62	11	11	34
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°	3931.4	3931.4	3931.4	3931.4	3931.4	3931.4	3931.4	3931.4	3931.4	3931.4	3931.4
2.5°	3903.3	3948.0	3953.7	3925.7	3914.5	3897.9	3936.8	3909.0	3920.2	3909.0	3903.3
5°	3853.2	3903.3	3909.0	3909.0	3897.9	3892.2	3909.0	3903.3	3897.9	3886.7	3903.3
7.5°	3830.9	3858.7	3886.7	3853.2	3869.9	3864.4	3903.3	3886.7	3881.0	3881.0	3869.9
10°	3842.0	3836.4	3858.7	3825.2	3836.4	3825.2	3858.7	3858.7	3847.5	3836.4	3830.9
12.5°	3752.5	3797.2	3797.2	3791.7	3780.5	3763.7	3797.2	3819.7	3786.0	3786.0	3780.5
15°	3702.4	3713.6	3719.0	3719.0	3713.6	3724.7	3741.4	3719.0	3724.7	3696.7	3707.9
17.5°	3646.6	3624.2	3640.9	3629.7	3635.4	3646.6	3668.9	3668.9	3635.4	3629.7	3640.9
20°	3518.1	3585.1	3590.7	3557.3	3562.7	3562.7	3601.9	3568.4	3590.7	3562.7	3573.9
22.5°	3456.6	3501.2	3506.9	3462.2	3490.0	3456.6	3495.7	3445.4	3501.2	3462.2	3478.9
25°	3378.4	3372.9	3389.6	3367.2	3372.9	3372.9	3400.7	3378.4	3395.3	3372.9	3378.4
27.5°	3250.1	3294.8	3289.1	3266.8	3277.9	3272.5	3328.3	3266.8	3300.3	3272.5	3283.6
30°	3138.3	3177.4	3166.3	3144.0	3144.0	3127.1	3188.6	3171.8	3166.3	3166.3	3160.6
32.5°	3026.6	3032.3	3021.1	3026.6	3032.3	3010.0	3060.1	3037.8	3032.3	3037.8	3043.5
35°	2875.8	2875.8	2887.0	2870.3	2892.6	2892.6	2937.3	2909.3	2903.8	2887.0	2903.8
37.5°	2741.8	2725.2	2730.7	2730.7	2741.8	2753.0	2775.3	2764.1	2764.1	2747.5	2758.7
40°	2563.2	2552.0	2568.7	2568.7	2585.5	2585.5	2607.8	2596.7	2613.3	2613.3	2613.3
42.5°	2406.9	2406.9	2395.7	2412.4	2418.1	2412.4	2451.5	2445.9	2451.5	2440.4	2445.9
45°	2239.2	2239.2	2228.0	2222.6	2250.4	2244.9	2289.6	2272.7	2295.0	2283.9	2289.6
47.5°	2010.2	2038.2	2021.4	2038.2	2071.7	2077.4	2105.2	2094.1	2116.4	2099.8	2122.1
50°	1792.6	1792.6	1809.3	1831.6	1865.1	1870.8	1904.3	1926.6	1937.8	1943.2	1948.9
52.5°	1563.7	1558.0	1574.8	1602.6	1630.6	1653.0	1686.5	1720.0	1742.3	1775.8	1758.9
55°	1295.5	1306.7	1323.5	1357.0	1401.7	1429.5	1457.5	1502.1	1541.3	1558.0	1591.5
57.5°	1066.5	1055.4	1066.5	1111.2	1161.5	1183.9	1223.0	1267.7	1323.5	1357.0	1368.2
60°	826.4	832.1	843.2	882.4	921.4	954.9	971.7	1044.2	1094.5	1128.0	1150.4
62.5°	608.8	619.9	631.1	664.6	703.6	731.6	759.4	820.9	865.6	899.1	921.4
65°	424.5	429.9	446.8	463.4	502.6	530.4	552.7	603.1	647.7	675.8	692.4
67.5°	262.5	267.9	279.1	301.7	329.5	351.8	374.1	407.6	446.8	474.6	480.3
70°	134.0	139.7	145.1	162.0	184.3	195.5	212.1	240.1	267.9	290.3	301.7
72.5°	44.7	44.7	50.3	61.5	72.7	83.8	89.3	117.3	139.7	150.8	156.3
75°	11.2	11.2	11.2	11.2	11.2	16.9	16.9	33.5	44.7	55.8	61.5
77.5°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	11.2	11.2
80°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
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°	3931.4	3931.4	3931.4	3931.4	3931.4	3931.4	3931.4	3931.4	3931.4	3931.4
2.5°	3931.4	3920.2	3914.5	3920.2	3920.2	3914.5	3931.4	3953.7	3981.5	3909.0
5°	3925.7	3914.5	3925.7	3892.2	3909.0	3897.9	3920.2	3914.5	3936.8	3914.5
7.5°	3909.0	3886.7	3892.2	3875.5	3897.9	3869.9	3886.7	3920.2	3897.9	3864.4
10°	3853.2	3842.0	3881.0	3825.2	3814.0	3836.4	3881.0	3847.5	3836.4	3847.5
12.5°	3797.2	3797.2	3814.0	3769.4	3774.8	3786.0	3808.3	3786.0	3797.2	3825.2
15°	3735.9	3724.7	3752.5	3719.0	3713.6	3702.4	3724.7	3724.7	3735.9	3719.0
17.5°	3663.2	3646.6	3646.6	3635.4	3629.7	3657.7	3668.9	3674.4	3680.1	3657.7
20°	3573.9	3568.4	3585.1	3568.4	3573.9	3579.6	3579.6	3568.4	3618.5	3557.3
22.5°	3478.9	3495.7	3473.4	3462.2	3473.4	3484.6	3484.6	3490.0	3478.9	3467.7
25°	3384.1	3395.3	3400.7	3367.2	3384.1	3367.2	3406.4	3411.9	3389.6	3400.7
27.5°	3300.3	3283.6	3277.9	3255.6	3266.8	3261.3	3266.8	3266.8	3300.3	3255.6
30°	3171.8	3155.1	3160.6	3144.0	3149.4	3144.0	3149.4	3149.4	3171.8	3166.3
32.5°	3048.9	3032.3	3037.8	3021.1	3021.1	3026.6	3015.5	3015.5	3032.3	3021.1
35°	2931.6	2892.6	2898.1	2892.6	2898.1	2875.8	2875.8	2870.3	2881.5	2853.5
37.5°	2764.1	2747.5	2741.8	2736.3	2741.8	2730.7	2741.8	2725.2	2741.8	2719.5
40°	2613.3	2602.2	2607.8	2574.4	2574.4	2579.8	2568.7	2563.2	2568.7	2591.0
42.5°	2462.7	2440.4	2429.2	2418.1	2423.5	2406.9	2401.2	2390.0	2401.2	2378.9
45°	2283.9	2283.9	2278.4	2250.4	2256.1	2256.1	2233.7	2211.4	2216.9	2216.9
47.5°	2122.1	2110.9	2105.2	2077.4	2071.7	2066.3	2043.7	2027.1	2027.1	2010.2
50°	1943.2	1932.1	1915.4	1887.4	1876.3	1842.8	1826.1	1803.8	1781.5	1781.5
52.5°	1775.8	1736.6	1714.3	1669.6	1653.0	1636.1	1591.5	1574.8	1558.0	1541.3
55°	1574.8	1541.3	1496.7	1446.3	1424.0	1396.0	1351.3	1317.8	1295.5	1301.2
57.5°	1379.3	1323.5	1278.9	1211.9	1183.9	1167.0	1122.3	1077.7	1055.4	1055.4
60°	1139.2	1094.5	1038.7	977.2	954.9	927.1	871.0	843.2	826.4	809.7
62.5°	910.2	876.7	826.4	748.2	731.6	703.6	664.6	631.1	614.3	614.3
65°	681.2	647.7	603.1	547.3	524.9	502.6	469.1	435.6	418.8	413.3
67.5°	480.3	441.1	402.1	357.5	340.6	329.5	296.0	273.6	262.5	256.8
70°	290.3	267.9	240.1	206.6	189.8	178.6	156.3	139.7	134.0	128.5
72.5°	150.8	134.0	111.6	89.3	78.2	67.0	55.8	44.7	39.2	39.2
75°	55.8	44.7	28.0	16.9	11.2	11.2	11.2	11.2	11.2	11.2
77.5°	11.2	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
80°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
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)