

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: P#

Luminaire Tested: **LD4C80D010 EX4C809035 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: P#  
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 EX4C809035 4LBCSSQMW  
Description: 4 INCH 8000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS  
AND 4LBCSSQ TRIM WITH MW FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

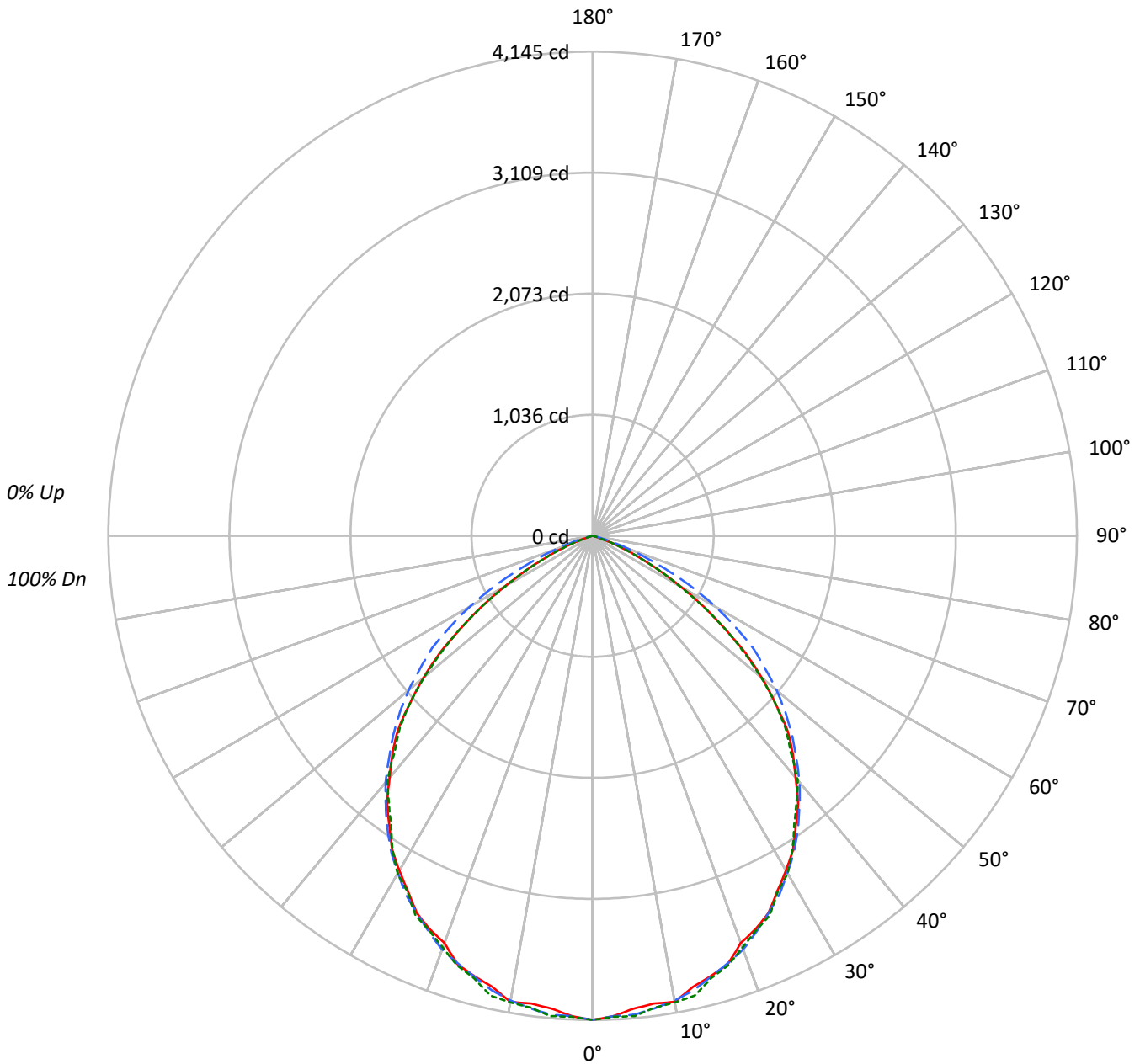
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8854.0 lumens  
Efficiency: N/A  
Efficacy: 98.9 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 (Ain): 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°	399927	399927	399927
5°	393474	398598	399740
10°	396877	395721	397435
15°	389921	390500	391679
20°	380855	386893	385096
25°	379202	379202	381715
30°	368641	371260	371928
35°	357131	360618	354363
40°	340387	347038	344078
45°	322145	329391	318938
50°	283708	308446	281937
55°	229759	282262	230769
60°	168122	234043	164745
65°	102170	166668	99476
70°	39835	89712	38227
75°	4399	24195	4399
80°	3334	3334	3334
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	391.2	4.4
10°-20°	1107.1	12.5
20°-30°	1642.7	18.6
30°-40°	1903.4	21.5
40°-50°	1824.9	20.6
50°-60°	1341.8	15.2
60°-70°	579.5	6.5
70°-80°	62.6	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°	3141.0	35.5
0°-40°	5044.4	57.0
0°-60°	8211.1	92.7
0°-90°	8854.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8854.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4145	4145	4145	4145	4145	
5°	4062	4104	4115	4121	4127	388
15°	3903	3927	3909	3915	3921	1100
25°	3562	3556	3562	3568	3585	1631
35°	3032	3050	3062	3056	3008	1896
45°	2361	2367	2414	2379	2337	1795
55°	1366	1507	1678	1501	1372	1229
65°	448	559	730	553	436	460
75°	12	18	65	12	12	36
85°	0	0	0	0	0	1
90°	0	0	0	0	0	



TEST NUMBER: P#

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	4144.8	4144.8	4144.8	4144.8	4144.8	4144.8	4144.8	4144.8	4144.8	4144.8	4144.8
2.5°	4115.3	4162.4	4168.4	4138.8	4127.1	4109.5	4150.6	4121.3	4133.1	4121.3	4115.3
5°	4062.4	4115.3	4121.3	4121.3	4109.5	4103.5	4121.3	4115.3	4109.5	4097.7	4115.3
7.5°	4038.9	4068.2	4097.7	4062.4	4080.0	4074.2	4115.3	4097.7	4091.7	4091.7	4080.0
10°	4050.7	4044.7	4068.2	4032.9	4044.7	4032.9	4068.2	4068.2	4056.4	4044.7	4038.9
12.5°	3956.3	4003.4	4003.4	3997.6	3985.8	3968.0	4003.4	4027.1	3991.6	3991.6	3985.8
15°	3903.4	3915.2	3921.0	3921.0	3915.2	3927.0	3944.5	3921.0	3927.0	3897.4	3909.2
17.5°	3844.6	3821.0	3838.6	3826.8	3832.8	3844.6	3868.1	3868.1	3832.8	3826.8	3838.6
20°	3709.1	3779.7	3785.7	3750.4	3756.2	3756.2	3797.5	3762.2	3785.7	3756.2	3767.9
22.5°	3644.2	3691.3	3697.3	3650.2	3679.6	3644.2	3685.6	3632.5	3691.3	3650.2	3667.8
25°	3561.8	3556.1	3573.6	3550.1	3556.1	3556.1	3585.4	3561.8	3579.6	3556.1	3561.8
27.5°	3426.6	3473.7	3467.7	3444.1	3455.9	3450.1	3509.0	3444.1	3479.5	3450.1	3461.9
30°	3308.7	3350.0	3338.2	3314.7	3314.7	3296.9	3361.7	3344.0	3338.2	3338.2	3332.2
32.5°	3191.0	3197.0	3185.2	3191.0	3197.0	3173.4	3226.3	3202.7	3197.0	3202.7	3208.7
35°	3031.9	3031.9	3043.7	3026.2	3049.7	3049.7	3096.8	3067.3	3061.5	3043.7	3061.5
37.5°	2890.7	2873.2	2878.9	2878.9	2890.7	2902.5	2926.0	2914.2	2914.2	2896.7	2908.5
40°	2702.4	2690.6	2708.1	2708.1	2725.9	2725.9	2749.5	2737.7	2755.2	2755.2	2755.2
42.5°	2537.6	2537.6	2525.8	2543.4	2549.4	2543.4	2584.7	2578.7	2584.7	2572.9	2578.7
45°	2360.8	2360.8	2349.0	2343.3	2372.6	2366.8	2413.9	2396.1	2419.6	2407.9	2413.9
47.5°	2119.4	2148.9	2131.2	2148.9	2184.2	2190.2	2219.5	2207.8	2231.3	2213.8	2237.3
50°	1890.0	1890.0	1907.5	1931.1	1966.4	1972.4	2007.7	2031.2	2043.0	2048.8	2054.8
52.5°	1648.6	1642.6	1660.3	1689.6	1719.2	1742.7	1778.0	1813.3	1836.9	1872.2	1854.4
55°	1365.8	1377.6	1395.4	1430.7	1477.8	1507.1	1536.6	1583.7	1625.0	1642.6	1677.9
57.5°	1124.4	1112.7	1124.4	1171.5	1224.6	1248.1	1289.4	1336.5	1395.4	1430.7	1442.5
60°	871.2	877.2	889.0	930.3	971.4	1006.7	1024.5	1100.9	1154.0	1189.3	1212.8
62.5°	641.8	653.6	665.4	700.7	741.8	771.3	800.6	865.5	912.6	947.9	971.4
65°	447.5	453.3	471.1	488.6	529.9	559.2	582.8	635.8	682.9	712.5	730.0
67.5°	276.7	282.5	294.3	318.0	347.3	370.9	394.4	429.7	471.1	500.4	506.4
70°	141.2	147.2	153.0	170.8	194.3	206.1	223.6	253.2	282.5	306.0	318.0
72.5°	47.1	47.1	53.1	64.9	76.6	88.4	94.2	123.7	147.2	159.0	164.8
75°	11.8	11.8	11.8	11.8	11.8	17.8	17.8	35.3	47.1	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°	4144.8	4144.8	4144.8	4144.8	4144.8	4144.8	4144.8	4144.8	4144.8	4144.8
2.5°	4144.8	4133.1	4127.1	4133.1	4133.1	4127.1	4144.8	4168.4	4197.7	4121.3
5°	4138.8	4127.1	4138.8	4103.5	4121.3	4109.5	4133.1	4127.1	4150.6	4127.1
7.5°	4121.3	4097.7	4103.5	4086.0	4109.5	4080.0	4097.7	4133.1	4109.5	4074.2
10°	4062.4	4050.7	4091.7	4032.9	4021.1	4044.7	4091.7	4056.4	4044.7	4056.4
12.5°	4003.4	4003.4	4021.1	3974.0	3979.8	3991.6	4015.1	3991.6	4003.4	4032.9
15°	3938.7	3927.0	3956.3	3921.0	3915.2	3903.4	3927.0	3927.0	3938.7	3921.0
17.5°	3862.1	3844.6	3844.6	3832.8	3826.8	3856.3	3868.1	3873.9	3879.9	3856.3
20°	3767.9	3762.2	3779.7	3762.2	3767.9	3773.9	3773.9	3762.2	3815.0	3750.4
22.5°	3667.8	3685.6	3662.0	3650.2	3662.0	3673.8	3673.8	3679.6	3667.8	3656.0
25°	3567.8	3579.6	3585.4	3550.1	3567.8	3550.1	3591.4	3597.2	3573.6	3585.4
27.5°	3479.5	3461.9	3455.9	3432.4	3444.1	3438.4	3444.1	3444.1	3479.5	3432.4
30°	3344.0	3326.4	3332.2	3314.7	3320.4	3314.7	3320.4	3320.4	3344.0	3338.2
32.5°	3214.5	3197.0	3202.7	3185.2	3185.2	3191.0	3179.2	3179.2	3197.0	3185.2
35°	3090.8	3049.7	3055.5	3049.7	3055.5	3031.9	3031.9	3026.2	3037.9	3008.4
37.5°	2914.2	2896.7	2890.7	2884.9	2890.7	2878.9	2890.7	2873.2	2890.7	2867.2
40°	2755.2	2743.4	2749.5	2714.1	2714.1	2719.9	2708.1	2702.4	2708.1	2731.7
42.5°	2596.4	2572.9	2561.1	2549.4	2555.1	2537.6	2531.6	2519.8	2531.6	2508.0
45°	2407.9	2407.9	2402.1	2372.6	2378.6	2378.6	2355.0	2331.5	2337.3	2337.3
47.5°	2237.3	2225.5	2219.5	2190.2	2184.2	2178.5	2154.7	2137.2	2137.2	2119.4
50°	2048.8	2037.0	2019.4	1989.9	1978.1	1942.8	1925.3	1901.7	1878.2	1878.2
52.5°	1872.2	1830.9	1807.3	1760.3	1742.7	1725.0	1677.9	1660.3	1642.6	1625.0
55°	1660.3	1625.0	1577.9	1524.9	1501.3	1471.8	1424.7	1389.4	1365.8	1371.8
57.5°	1454.2	1395.4	1348.3	1277.7	1248.1	1230.4	1183.3	1136.2	1112.7	1112.7
60°	1201.1	1154.0	1095.1	1030.3	1006.7	977.4	918.3	889.0	871.2	853.7
62.5°	959.6	924.3	871.2	788.9	771.3	741.8	700.7	665.4	647.6	647.6
65°	718.2	682.9	635.8	577.0	553.4	529.9	494.6	459.3	441.5	435.7
67.5°	506.4	465.1	424.0	376.9	359.1	347.3	312.0	288.5	276.7	270.7
70°	306.0	282.5	253.2	217.9	200.1	188.3	164.8	147.2	141.2	135.5
72.5°	159.0	141.2	117.7	94.2	82.4	70.6	58.9	47.1	41.3	41.3
75°	58.9	47.1	29.5	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)