

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: P840242

Luminaire Tested: **LD4C70D010 EU4709035 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: P840242  
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: LD4C70D010 EU4709035 4LBCSSQMMS  
Description: 4 INCH 7000 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**

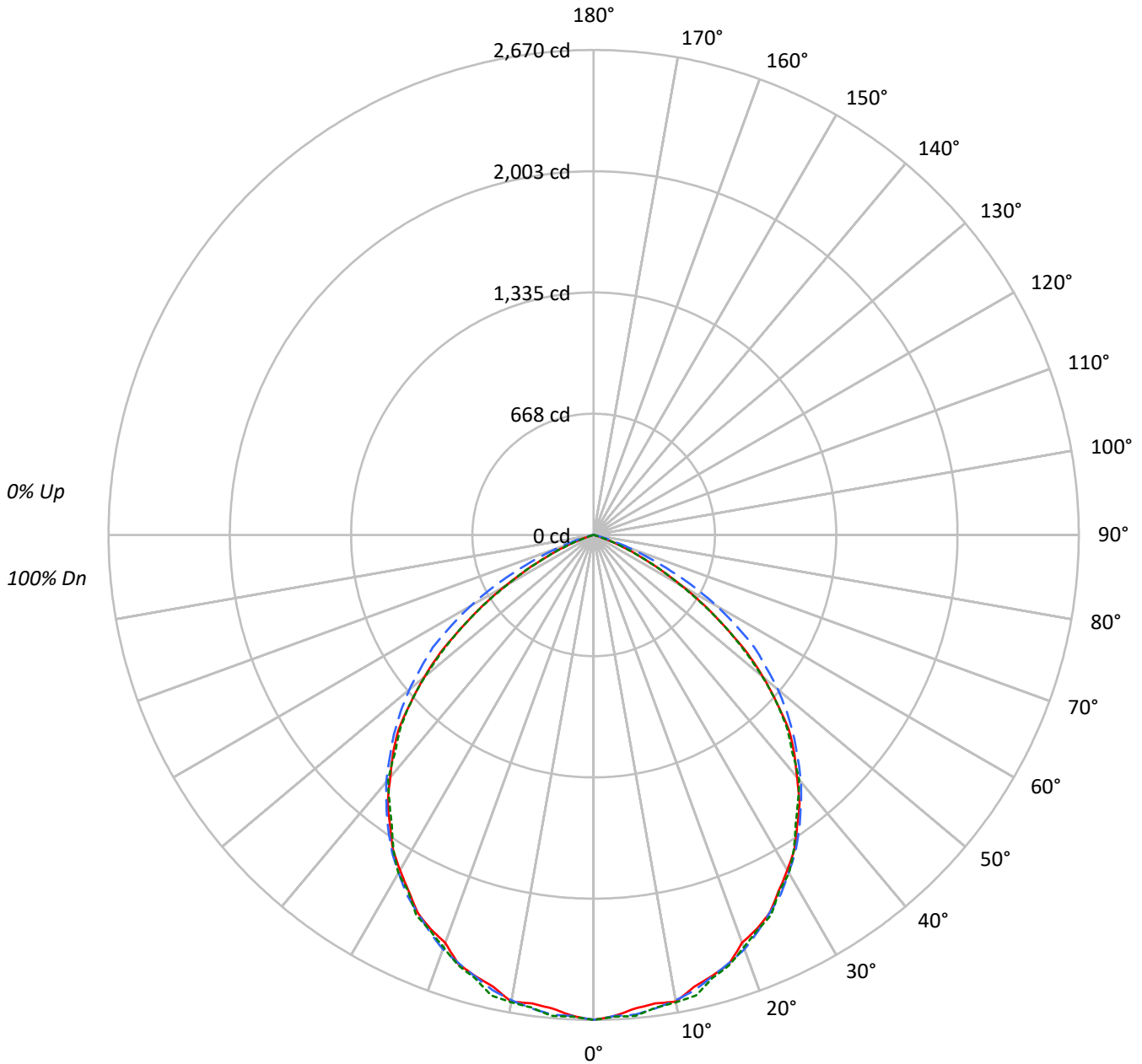
Lumens per Lamp: N/A  
Luminaire Lumens: 5703.0 lumens  
Efficiency: N/A  
Efficacy: 73.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 78  
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°	257606	257606	257606
5°	253447	256740	257476
10°	255633	254888	255995
15°	251160	251530	252289
20°	245316	249208	248047
25°	244249	244249	245867
30°	237449	239132	239566
35°	230034	232272	228256
40°	219241	223536	221622
45°	207495	212162	205434
50°	182744	198671	181603
55°	148003	181799	148642
60°	108299	150754	106118
65°	65800	107352	64087
70°	25672	57805	24629
75°	2833	15583	2833
80°	2167	2167	2167
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	252.0	4.4
10°-20°	713.1	12.5
20°-30°	1058.1	18.6
30°-40°	1226.0	21.5
40°-50°	1175.5	20.6
50°-60°	864.3	15.2
60°-70°	373.3	6.5
70°-80°	40.3	0.7
80°-90°	0.5	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°	2023.2	35.5
0°-40°	3249.2	57.0
0°-60°	5288.9	92.7
0°-90°	5703.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5703.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2670	2670	2670	2670	2670	
5°	2617	2643	2651	2655	2658	250
15°	2514	2529	2518	2522	2526	709
25°	2294	2290	2294	2298	2309	1050
35°	1953	1964	1972	1968	1938	1221
45°	1521	1524	1555	1532	1506	1156
55°	880	971	1081	967	884	792
65°	288	360	470	356	281	296
75°	8	11	42	8	8	23
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°	2669.8	2669.8	2669.8	2669.8	2669.8	2669.8	2669.8	2669.8	2669.8	2669.8	2669.8
2.5°	2650.7	2681.0	2684.9	2665.9	2658.3	2647.0	2673.5	2654.6	2662.2	2654.6	2650.7
5°	2616.7	2650.7	2654.6	2654.6	2647.0	2643.1	2654.6	2650.7	2647.0	2639.4	2650.7
7.5°	2601.5	2620.4	2639.4	2616.7	2628.0	2624.3	2650.7	2639.4	2635.6	2635.6	2628.0
10°	2609.1	2605.2	2620.4	2597.7	2605.2	2597.7	2620.4	2620.4	2612.8	2605.2	2601.5
12.5°	2548.3	2578.6	2578.6	2574.9	2567.3	2555.9	2578.6	2593.9	2571.0	2571.0	2567.3
15°	2514.3	2521.8	2525.6	2525.6	2521.8	2529.4	2540.7	2525.6	2529.4	2510.4	2518.0
17.5°	2476.3	2461.2	2472.5	2464.9	2468.8	2476.3	2491.5	2491.5	2468.8	2464.9	2472.5
20°	2389.1	2434.6	2438.4	2415.7	2419.4	2419.4	2446.0	2423.3	2438.4	2419.4	2427.0
22.5°	2347.3	2377.6	2381.5	2351.2	2370.1	2347.3	2373.9	2339.7	2377.6	2351.2	2362.5
25°	2294.2	2290.5	2301.8	2286.7	2290.5	2290.5	2309.4	2294.2	2305.7	2290.5	2294.2
27.5°	2207.1	2237.5	2233.6	2218.4	2226.0	2222.3	2260.2	2218.4	2241.2	2222.3	2229.9
30°	2131.2	2157.8	2150.2	2135.0	2135.0	2123.6	2165.4	2153.9	2150.2	2150.2	2146.3
32.5°	2055.3	2059.2	2051.6	2055.3	2059.2	2044.0	2078.1	2062.9	2059.2	2062.9	2066.8
35°	1952.9	1952.9	1960.5	1949.2	1964.4	1964.4	1994.7	1975.7	1971.9	1960.5	1971.9
37.5°	1861.9	1850.6	1854.4	1854.4	1861.9	1869.5	1884.7	1877.1	1877.1	1865.8	1873.4
40°	1740.6	1733.1	1744.4	1744.4	1755.8	1755.8	1771.0	1763.4	1774.7	1774.7	1774.7
42.5°	1634.5	1634.5	1626.9	1638.2	1642.1	1638.2	1664.8	1661.0	1664.8	1657.2	1661.0
45°	1520.6	1520.6	1513.0	1509.3	1528.2	1524.5	1554.8	1543.4	1558.5	1550.9	1554.8
47.5°	1365.1	1384.2	1372.7	1384.2	1406.9	1410.8	1429.6	1422.1	1437.2	1425.9	1441.1
50°	1217.4	1217.4	1228.7	1243.8	1266.6	1270.4	1293.2	1308.3	1315.9	1319.6	1323.5
52.5°	1061.9	1058.0	1069.4	1088.3	1107.4	1122.5	1145.3	1168.0	1183.2	1205.9	1194.5
55°	879.8	887.3	898.8	921.5	951.9	970.7	989.8	1020.1	1046.7	1058.0	1080.7
57.5°	724.3	716.7	724.3	754.6	788.8	803.9	830.6	860.9	898.8	921.5	929.1
60°	561.2	565.0	572.6	599.2	625.7	648.4	659.9	709.1	743.3	766.0	781.2
62.5°	413.4	421.0	428.6	451.3	477.8	496.8	515.7	557.5	587.8	610.5	625.7
65°	288.2	292.0	303.4	314.7	341.3	360.2	375.4	409.6	439.9	458.9	470.2
67.5°	178.2	182.0	189.5	204.9	223.7	238.9	254.1	276.8	303.4	322.3	326.2
70°	91.0	94.8	98.6	110.0	125.2	132.8	144.0	163.1	182.0	197.1	204.9
72.5°	30.3	30.3	34.2	41.8	49.4	56.9	60.7	79.7	94.8	102.4	106.1
75°	7.6	7.6	7.6	7.6	7.6	11.4	11.4	22.7	30.3	37.9	41.8
77.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	7.6	7.6
80°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
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



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	2669.8	2669.8	2669.8	2669.8	2669.8	2669.8	2669.8	2669.8	2669.8	2669.8
2.5°	2669.8	2662.2	2658.3	2662.2	2662.2	2658.3	2669.8	2684.9	2703.8	2654.6
5°	2665.9	2658.3	2665.9	2643.1	2654.6	2647.0	2662.2	2658.3	2673.5	2658.3
7.5°	2654.6	2639.4	2643.1	2631.8	2647.0	2628.0	2639.4	2662.2	2647.0	2624.3
10°	2616.7	2609.1	2635.6	2597.7	2590.1	2605.2	2635.6	2612.8	2605.2	2612.8
12.5°	2578.6	2578.6	2590.1	2559.7	2563.5	2571.0	2586.2	2571.0	2578.6	2597.7
15°	2537.0	2529.4	2548.3	2525.6	2521.8	2514.3	2529.4	2529.4	2537.0	2525.6
17.5°	2487.6	2476.3	2476.3	2468.8	2464.9	2483.9	2491.5	2495.2	2499.1	2483.9
20°	2427.0	2423.3	2434.6	2423.3	2427.0	2430.9	2430.9	2423.3	2457.3	2415.7
22.5°	2362.5	2373.9	2358.8	2351.2	2358.8	2366.3	2366.3	2370.1	2362.5	2354.9
25°	2298.1	2305.7	2309.4	2286.7	2298.1	2286.7	2313.3	2317.0	2301.8	2309.4
27.5°	2241.2	2229.9	2226.0	2210.8	2218.4	2214.7	2218.4	2218.4	2241.2	2210.8
30°	2153.9	2142.6	2146.3	2135.0	2138.7	2135.0	2138.7	2138.7	2153.9	2150.2
32.5°	2070.5	2059.2	2062.9	2051.6	2051.6	2055.3	2047.8	2047.8	2059.2	2051.6
35°	1990.8	1964.4	1968.1	1964.4	1968.1	1952.9	1952.9	1949.2	1956.8	1937.8
37.5°	1877.1	1865.8	1861.9	1858.2	1861.9	1854.4	1861.9	1850.6	1861.9	1846.8
40°	1774.7	1767.1	1771.0	1748.2	1748.2	1751.9	1744.4	1740.6	1744.4	1759.5
42.5°	1672.4	1657.2	1649.7	1642.1	1645.8	1634.5	1630.6	1623.0	1630.6	1615.5
45°	1550.9	1550.9	1547.2	1528.2	1532.1	1532.1	1516.9	1501.7	1505.5	1505.5
47.5°	1441.1	1433.5	1429.6	1410.8	1406.9	1403.2	1387.9	1376.6	1376.6	1365.1
50°	1319.6	1312.1	1300.8	1281.7	1274.1	1251.4	1240.1	1224.9	1209.8	1209.8
52.5°	1205.9	1179.3	1164.1	1133.8	1122.5	1111.1	1080.7	1069.4	1058.0	1046.7
55°	1069.4	1046.7	1016.4	982.2	967.0	948.0	917.7	894.9	879.8	883.6
57.5°	936.7	898.8	868.5	823.0	803.9	792.5	762.2	731.8	716.7	716.7
60°	773.6	743.3	705.4	663.6	648.4	629.6	591.5	572.6	561.2	549.9
62.5°	618.1	595.4	561.2	508.1	496.8	477.8	451.3	428.6	417.1	417.1
65°	462.6	439.9	409.6	371.6	356.5	341.3	318.6	295.8	284.4	280.7
67.5°	326.2	299.5	273.1	242.8	231.3	223.7	201.0	185.8	178.2	174.4
70°	197.1	182.0	163.1	140.3	128.9	121.3	106.1	94.8	91.0	87.3
72.5°	102.4	91.0	75.8	60.7	53.1	45.5	37.9	30.3	26.6	26.6
75°	37.9	30.3	19.0	11.4	7.6	7.6	7.6	7.6	7.6	7.6
77.5°	7.6	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
80°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
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)