

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: **LD4C65D010 EX4C659030 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: 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: LD4C65D010 EX4C659030 4LBCSSQMMS  
Description: 4 INCH 6500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS  
AND 4LBCSSQ TRIM WITH MMS FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

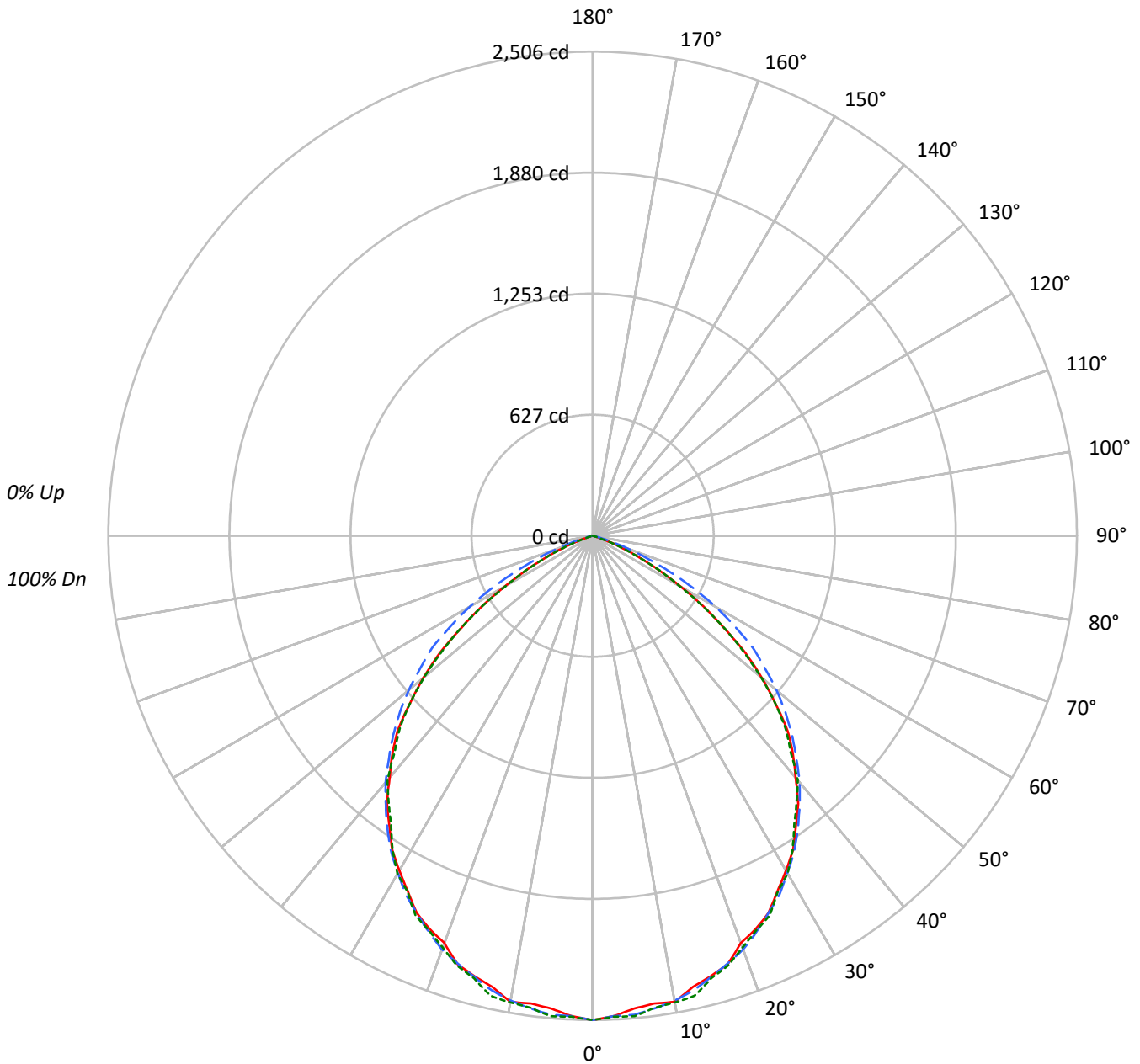
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5354.0 lumens  
Efficiency: N/A  
Efficacy: 74.0 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): 72.4  
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°	241840	241840	241840
5°	237930	241030	241717
10°	239986	239290	240329
15°	235787	236136	236845
20°	230304	233959	232871
25°	229302	229302	230824
30°	222910	224503	224904
35°	215958	218067	214286
40°	205827	209857	208056
45°	194804	199185	192853
50°	171561	186512	170480
55°	138936	170679	139541
60°	101661	141530	99615
65°	61781	100777	60160
70°	24093	54251	23105
75°	2647	14614	2647
80°	2000	2000	2000
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	236.6	4.4
10°-20°	669.5	12.5
20°-30°	993.3	18.6
30°-40°	1151.0	21.5
40°-50°	1103.5	20.6
50°-60°	811.4	15.2
60°-70°	350.4	6.5
70°-80°	37.8	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°	1899.4	35.5
0°-40°	3050.3	57.0
0°-60°	4965.2	92.7
0°-90°	5354.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5354.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2506	2506	2506	2506	2506	
5°	2456	2481	2488	2492	2496	234
15°	2360	2375	2364	2368	2371	665
25°	2154	2150	2154	2158	2168	986
35°	1833	1844	1851	1848	1819	1146
45°	1428	1431	1460	1438	1413	1085
55°	826	911	1015	908	830	743
65°	271	338	441	335	264	278
75°	7	11	39	7	7	22
85°	0	0	0	0	0	0
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°	2506.4	2506.4	2506.4	2506.4	2506.4	2506.4	2506.4	2506.4	2506.4	2506.4	2506.4
2.5°	2488.5	2517.0	2520.6	2502.7	2495.6	2485.0	2509.9	2492.1	2499.3	2492.1	2488.5
5°	2456.5	2488.5	2492.1	2492.1	2485.0	2481.4	2492.1	2488.5	2485.0	2477.9	2488.5
7.5°	2442.3	2460.0	2477.9	2456.5	2467.2	2463.7	2488.5	2477.9	2474.3	2474.3	2467.2
10°	2449.4	2445.8	2460.0	2438.7	2445.8	2438.7	2460.0	2460.0	2452.9	2445.8	2442.3
12.5°	2392.4	2420.8	2420.8	2417.3	2410.2	2399.5	2420.8	2435.2	2413.7	2413.7	2410.2
15°	2360.4	2367.5	2371.0	2371.0	2367.5	2374.6	2385.2	2371.0	2374.6	2356.8	2363.9
17.5°	2324.8	2310.6	2321.2	2314.1	2317.7	2324.8	2339.0	2339.0	2317.7	2314.1	2321.2
20°	2242.9	2285.6	2289.2	2267.9	2271.4	2271.4	2296.3	2275.0	2289.2	2271.4	2278.5
22.5°	2203.7	2232.1	2235.8	2207.3	2225.0	2203.7	2228.6	2196.5	2232.1	2207.3	2217.9
25°	2153.8	2150.4	2161.0	2146.7	2150.4	2150.4	2168.1	2153.8	2164.6	2150.4	2153.8
27.5°	2072.1	2100.5	2096.9	2082.7	2089.8	2086.3	2121.9	2082.7	2104.0	2086.3	2093.4
30°	2000.7	2025.7	2018.6	2004.4	2004.4	1993.6	2032.8	2022.1	2018.6	2018.6	2015.0
32.5°	1929.6	1933.2	1926.1	1929.6	1933.2	1919.0	1950.9	1936.7	1933.2	1936.7	1940.3
35°	1833.4	1833.4	1840.5	1829.9	1844.2	1844.2	1872.6	1854.8	1851.3	1840.5	1851.3
37.5°	1748.0	1737.4	1740.9	1740.9	1748.0	1755.1	1769.4	1762.2	1762.2	1751.6	1758.7
40°	1634.1	1627.0	1637.6	1637.6	1648.4	1648.4	1662.6	1655.5	1666.1	1666.1	1666.1
42.5°	1534.5	1534.5	1527.4	1538.0	1541.6	1538.0	1562.9	1559.3	1562.9	1555.8	1559.3
45°	1427.6	1427.6	1420.5	1417.0	1434.7	1431.2	1459.7	1448.9	1463.2	1456.0	1459.7
47.5°	1281.6	1299.5	1288.7	1299.5	1320.8	1324.4	1342.2	1335.0	1349.3	1338.7	1352.9
50°	1142.9	1142.9	1153.5	1167.7	1189.1	1192.7	1214.0	1228.3	1235.4	1238.9	1242.5
52.5°	996.9	993.3	1004.0	1021.7	1039.6	1053.8	1075.2	1096.5	1110.8	1132.1	1121.4
55°	825.9	833.0	843.8	865.1	893.6	911.3	929.2	957.7	982.6	993.3	1014.6
57.5°	679.9	672.8	679.9	708.4	740.5	754.7	779.7	808.2	843.8	865.1	872.3
60°	526.8	530.5	537.6	562.6	587.4	608.8	619.5	665.7	697.8	719.2	733.4
62.5°	388.1	395.2	402.4	423.7	448.5	466.4	484.1	523.4	551.8	573.2	587.4
65°	270.6	274.1	284.8	295.5	320.4	338.2	352.4	384.5	413.0	430.8	441.4
67.5°	167.3	170.8	177.9	192.3	210.0	224.3	238.5	259.9	284.8	302.6	306.2
70°	85.4	89.0	92.5	103.3	117.5	124.6	135.2	153.1	170.8	185.1	192.3
72.5°	28.5	28.5	32.1	39.2	46.3	53.5	56.9	74.8	89.0	96.2	99.6
75°	7.1	7.1	7.1	7.1	7.1	10.7	10.7	21.4	28.5	35.6	39.2
77.5°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	7.1	7.1
80°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
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°	2506.4	2506.4	2506.4	2506.4	2506.4	2506.4	2506.4	2506.4	2506.4	2506.4
2.5°	2506.4	2499.3	2495.6	2499.3	2499.3	2495.6	2506.4	2520.6	2538.3	2492.1
5°	2502.7	2495.6	2502.7	2481.4	2492.1	2485.0	2499.3	2495.6	2509.9	2495.6
7.5°	2492.1	2477.9	2481.4	2470.8	2485.0	2467.2	2477.9	2499.3	2485.0	2463.7
10°	2456.5	2449.4	2474.3	2438.7	2431.6	2445.8	2474.3	2452.9	2445.8	2452.9
12.5°	2420.8	2420.8	2431.6	2403.1	2406.6	2413.7	2427.9	2413.7	2420.8	2438.7
15°	2381.7	2374.6	2392.4	2371.0	2367.5	2360.4	2374.6	2374.6	2381.7	2371.0
17.5°	2335.4	2324.8	2324.8	2317.7	2314.1	2331.9	2339.0	2342.5	2346.2	2331.9
20°	2278.5	2275.0	2285.6	2275.0	2278.5	2282.1	2282.1	2275.0	2306.9	2267.9
22.5°	2217.9	2228.6	2214.4	2207.3	2214.4	2221.5	2221.5	2225.0	2217.9	2210.8
25°	2157.5	2164.6	2168.1	2146.7	2157.5	2146.7	2171.7	2175.2	2161.0	2168.1
27.5°	2104.0	2093.4	2089.8	2075.5	2082.7	2079.2	2082.7	2082.7	2104.0	2075.5
30°	2022.1	2011.5	2015.0	2004.4	2007.9	2004.4	2007.9	2007.9	2022.1	2018.6
32.5°	1943.8	1933.2	1936.7	1926.1	1926.1	1929.6	1922.5	1922.5	1933.2	1926.1
35°	1869.0	1844.2	1847.6	1844.2	1847.6	1833.4	1833.4	1829.9	1837.0	1819.2
37.5°	1762.2	1751.6	1748.0	1744.5	1748.0	1740.9	1748.0	1737.4	1748.0	1733.8
40°	1666.1	1659.0	1662.6	1641.2	1641.2	1644.7	1637.6	1634.1	1637.6	1651.8
42.5°	1570.1	1555.8	1548.7	1541.6	1545.1	1534.5	1530.8	1523.7	1530.8	1516.6
45°	1456.0	1456.0	1452.5	1434.7	1438.3	1438.3	1424.1	1409.8	1413.3	1413.3
47.5°	1352.9	1345.8	1342.2	1324.4	1320.8	1317.3	1302.9	1292.3	1292.3	1281.6
50°	1238.9	1231.8	1221.2	1203.3	1196.2	1174.8	1164.2	1150.0	1135.7	1135.7
52.5°	1132.1	1107.1	1092.9	1064.4	1053.8	1043.1	1014.6	1004.0	993.3	982.6
55°	1004.0	982.6	954.2	922.1	907.8	890.0	861.5	840.2	825.9	829.5
57.5°	879.4	843.8	815.3	772.6	754.7	744.0	715.5	687.1	672.8	672.8
60°	726.3	697.8	662.2	623.0	608.8	591.0	555.3	537.6	526.8	516.2
62.5°	580.3	558.9	526.8	477.0	466.4	448.5	423.7	402.4	391.6	391.6
65°	434.3	413.0	384.5	348.9	334.7	320.4	299.1	277.7	267.0	263.5
67.5°	306.2	281.2	256.4	227.9	217.2	210.0	188.7	174.5	167.3	163.7
70°	185.1	170.8	153.1	131.7	121.0	113.9	99.6	89.0	85.4	81.9
72.5°	96.2	85.4	71.2	56.9	49.8	42.7	35.6	28.5	25.0	25.0
75°	35.6	28.5	17.9	10.7	7.1	7.1	7.1	7.1	7.1	7.1
77.5°	7.1	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
80°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
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)