

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: P563842

Luminaire Tested: **LD4C45D010 EX4C459030 4LBPSSQMW**

Issue Date: 2/18/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P563842  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P209253)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/18/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LD4C45D010 EX4C459030 4LBPSSQMW  
Description: 4 INCH 4500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS  
AND 4LBPSSQ TRIM WITH MW FINISH, DIM TO WARM  
Light Source: -  
Ballast/Driver: -

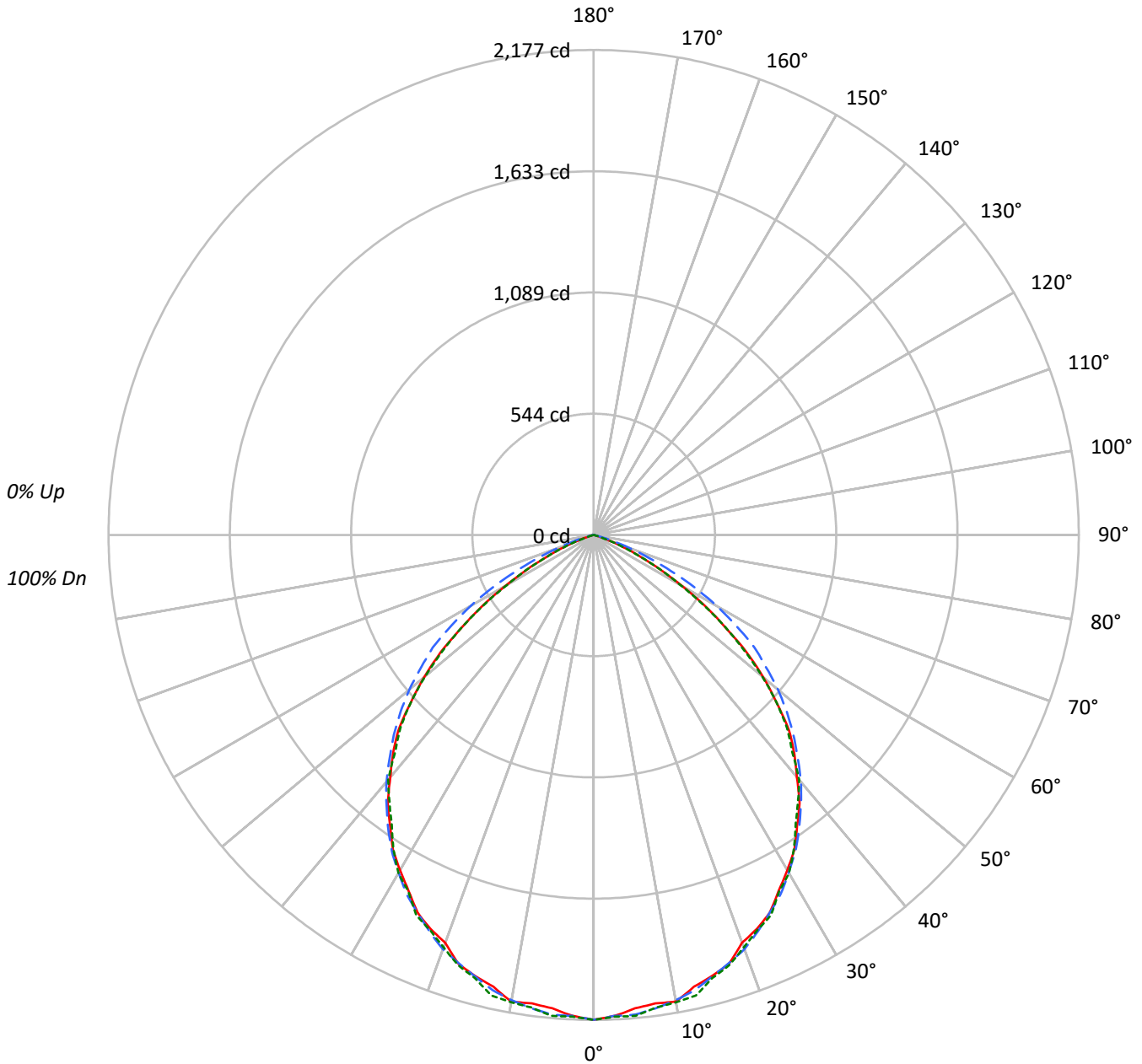
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4649.6 lumens  
Efficiency: N/A  
Efficacy: 93.7 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): 49.6  
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				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			100
1	111	108	104	101	109	105	102	100	101	99	96	97	95	94	94	92	91	89			89
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77			77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	67			67
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61	59			59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52			52
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46			46
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41			41
8	65	53	45	40	64	52	45	39	51	44	39	50	44	39	49	43	39	37			37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	33			33
10	57	45	38	33	56	44	37	33	44	37	32	43	37	32	42	36	32	31			31

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	210018	210018	210018
5°	206636	209319	209919
10°	208418	207810	208711
15°	204770	205070	205689
20°	200003	203186	202231
25°	199140	199140	200450
30°	193585	194966	195312
35°	187547	189373	186087
40°	178746	182248	180698
45°	169178	172972	167486
50°	148984	161969	148054
55°	120650	148222	121188
60°	88287	122908	86512
65°	53653	87535	52261
70°	20933	47113	20058
75°	2311	12713	2311
80°	1778	1778	1778
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	205.5	4.4
10°-20°	581.4	12.5
20°-30°	862.6	18.6
30°-40°	999.6	21.5
40°-50°	958.3	20.6
50°-60°	704.6	15.2
60°-70°	304.3	6.5
70°-80°	32.9	0.7
80°-90°	0.4	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°	1649.5	35.5
0°-40°	2649.0	57.0
0°-60°	4312.0	92.7
0°-90°	4649.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4649.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2177	2177	2177	2177	2177	
5°	2133	2155	2161	2164	2167	204
15°	2050	2062	2053	2056	2059	578
25°	1870	1868	1870	1874	1883	856
35°	1592	1602	1608	1604	1580	996
45°	1240	1243	1268	1249	1227	942
55°	717	792	881	788	720	645
65°	235	294	383	291	229	242
75°	6	9	34	6	6	19
85°	0	0	0	0	0	0
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°	2176.6	2176.6	2176.6	2176.6	2176.6	2176.6	2176.6	2176.6	2176.6	2176.6	2176.6
2.5°	2161.1	2185.9	2189.0	2173.5	2167.3	2158.1	2179.7	2164.3	2170.4	2164.3	2161.1
5°	2133.4	2161.1	2164.3	2164.3	2158.1	2154.9	2164.3	2161.1	2158.1	2151.9	2161.1
7.5°	2121.0	2136.4	2151.9	2133.4	2142.5	2139.6	2161.1	2151.9	2148.7	2148.7	2142.5
10°	2127.2	2124.0	2136.4	2117.8	2124.0	2117.8	2136.4	2136.4	2130.2	2124.0	2121.0
12.5°	2077.6	2102.3	2102.3	2099.3	2093.1	2083.8	2102.3	2114.9	2096.1	2096.1	2093.1
15°	2049.9	2056.1	2059.1	2059.1	2056.1	2062.2	2071.4	2059.1	2062.2	2046.7	2052.9
17.5°	2018.9	2006.6	2015.8	2009.6	2012.7	2018.9	2031.3	2031.3	2012.7	2009.6	2015.8
20°	1947.8	1984.9	1988.0	1969.5	1972.6	1972.6	1994.2	1975.7	1988.0	1972.6	1978.8
22.5°	1913.8	1938.5	1941.6	1916.9	1932.3	1913.8	1935.4	1907.6	1938.5	1916.9	1926.1
25°	1870.5	1867.5	1876.6	1864.3	1867.5	1867.5	1882.8	1870.5	1879.8	1867.5	1870.5
27.5°	1799.4	1824.1	1821.0	1808.7	1814.9	1811.8	1842.8	1808.7	1827.2	1811.8	1818.0
30°	1737.5	1759.2	1753.0	1740.6	1740.6	1731.4	1765.4	1756.1	1753.0	1753.0	1749.9
32.5°	1675.7	1678.9	1672.7	1675.7	1678.9	1666.5	1694.2	1681.9	1678.9	1681.9	1685.1
35°	1592.2	1592.2	1598.4	1589.2	1601.6	1601.6	1626.3	1610.7	1607.7	1598.4	1607.7
37.5°	1518.1	1508.8	1511.9	1511.9	1518.1	1524.2	1536.6	1530.4	1530.4	1521.2	1527.3
40°	1419.1	1413.0	1422.1	1422.1	1431.5	1431.5	1443.8	1437.7	1446.9	1446.9	1446.9
42.5°	1332.6	1332.6	1326.4	1335.6	1338.7	1335.6	1357.4	1354.2	1357.4	1351.1	1354.2
45°	1239.8	1239.8	1233.6	1230.5	1246.0	1242.9	1267.6	1258.3	1270.7	1264.5	1267.6
47.5°	1113.0	1128.5	1119.1	1128.5	1147.0	1150.1	1165.6	1159.4	1171.7	1162.6	1174.9
50°	992.5	992.5	1001.7	1014.0	1032.7	1035.8	1054.3	1066.6	1072.8	1075.9	1079.0
52.5°	865.7	862.6	871.9	887.3	902.9	915.2	933.7	952.3	964.6	983.2	973.9
55°	717.2	723.4	732.8	751.3	776.0	791.5	806.9	831.7	853.3	862.6	881.1
57.5°	590.5	584.3	590.5	615.2	643.1	655.5	677.2	701.9	732.8	751.3	757.5
60°	457.5	460.7	466.9	488.6	510.1	528.6	538.0	578.1	606.0	624.6	636.9
62.5°	337.1	343.2	349.4	367.9	389.6	405.0	420.4	454.5	479.2	497.8	510.1
65°	235.0	238.0	247.4	256.5	278.3	293.7	306.1	333.9	358.7	374.1	383.4
67.5°	145.4	148.3	154.5	167.0	182.4	194.8	207.1	225.7	247.4	262.7	265.9
70°	74.2	77.3	80.4	89.7	102.0	108.2	117.5	132.9	148.3	160.7	167.0
72.5°	24.7	24.7	27.9	34.1	40.3	46.4	49.4	65.0	77.3	83.5	86.6
75°	6.2	6.2	6.2	6.2	6.2	9.4	9.4	18.5	24.7	30.9	34.1
77.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	6.2	6.2
80°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
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°	2176.6	2176.6	2176.6	2176.6	2176.6	2176.6	2176.6	2176.6	2176.6	2176.6
2.5°	2176.6	2170.4	2167.3	2170.4	2170.4	2167.3	2176.6	2189.0	2204.4	2164.3
5°	2173.5	2167.3	2173.5	2154.9	2164.3	2158.1	2170.4	2167.3	2179.7	2167.3
7.5°	2164.3	2151.9	2154.9	2145.7	2158.1	2142.5	2151.9	2170.4	2158.1	2139.6
10°	2133.4	2127.2	2148.7	2117.8	2111.7	2124.0	2148.7	2130.2	2124.0	2130.2
12.5°	2102.3	2102.3	2111.7	2087.0	2089.9	2096.1	2108.6	2096.1	2102.3	2117.8
15°	2068.4	2062.2	2077.6	2059.1	2056.1	2049.9	2062.2	2062.2	2068.4	2059.1
17.5°	2028.2	2018.9	2018.9	2012.7	2009.6	2025.1	2031.3	2034.3	2037.5	2025.1
20°	1978.8	1975.7	1984.9	1975.7	1978.8	1981.9	1981.9	1975.7	2003.5	1969.5
22.5°	1926.1	1935.4	1923.1	1916.9	1923.1	1929.2	1929.2	1932.3	1926.1	1920.0
25°	1873.6	1879.8	1882.8	1864.3	1873.6	1864.3	1886.0	1889.0	1876.6	1882.8
27.5°	1827.2	1818.0	1814.9	1802.5	1808.7	1805.6	1808.7	1808.7	1827.2	1802.5
30°	1756.1	1746.8	1749.9	1740.6	1743.7	1740.6	1743.7	1743.7	1756.1	1753.0
32.5°	1688.0	1678.9	1681.9	1672.7	1672.7	1675.7	1669.5	1669.5	1678.9	1672.7
35°	1623.1	1601.6	1604.5	1601.6	1604.5	1592.2	1592.2	1589.2	1595.4	1579.8
37.5°	1530.4	1521.2	1518.1	1515.0	1518.1	1511.9	1518.1	1508.8	1518.1	1505.7
40°	1446.9	1440.7	1443.8	1425.3	1425.3	1428.4	1422.1	1419.1	1422.1	1434.6
42.5°	1363.5	1351.1	1344.9	1338.7	1341.8	1332.6	1329.5	1323.3	1329.5	1317.1
45°	1264.5	1264.5	1261.4	1246.0	1249.1	1249.1	1236.7	1224.4	1227.4	1227.4
47.5°	1174.9	1168.8	1165.6	1150.1	1147.0	1144.0	1131.5	1122.3	1122.3	1113.0
50°	1075.9	1069.7	1060.5	1045.0	1038.8	1020.3	1011.1	998.7	986.3	986.3
52.5°	983.2	961.5	949.1	924.4	915.2	905.8	881.1	871.9	862.6	853.3
55°	871.9	853.3	828.6	800.7	788.4	772.9	748.2	729.6	717.2	720.4
57.5°	763.7	732.8	708.1	670.9	655.5	646.1	621.4	596.7	584.3	584.3
60°	630.8	606.0	575.1	541.0	528.6	513.3	482.3	466.9	457.5	448.3
62.5°	503.9	485.4	457.5	414.3	405.0	389.6	367.9	349.4	340.0	340.0
65°	377.2	358.7	333.9	303.0	290.6	278.3	259.7	241.2	231.8	228.9
67.5°	265.9	244.2	222.7	197.9	188.6	182.4	163.9	151.5	145.4	142.2
70°	160.7	148.3	132.9	114.4	105.1	98.9	86.6	77.3	74.2	71.1
72.5°	83.5	74.2	61.8	49.4	43.2	37.1	30.9	24.7	21.7	21.7
75°	30.9	24.7	15.6	9.4	6.2	6.2	6.2	6.2	6.2	6.2
77.5°	6.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
80°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
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)