

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: P840216

Luminaire Tested: **LD4C55D010 EU4559050 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: P840216
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: LD4C55D010 EU4559050 4LBCSSQMMS
Description: 4 INCH 5500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MMS FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

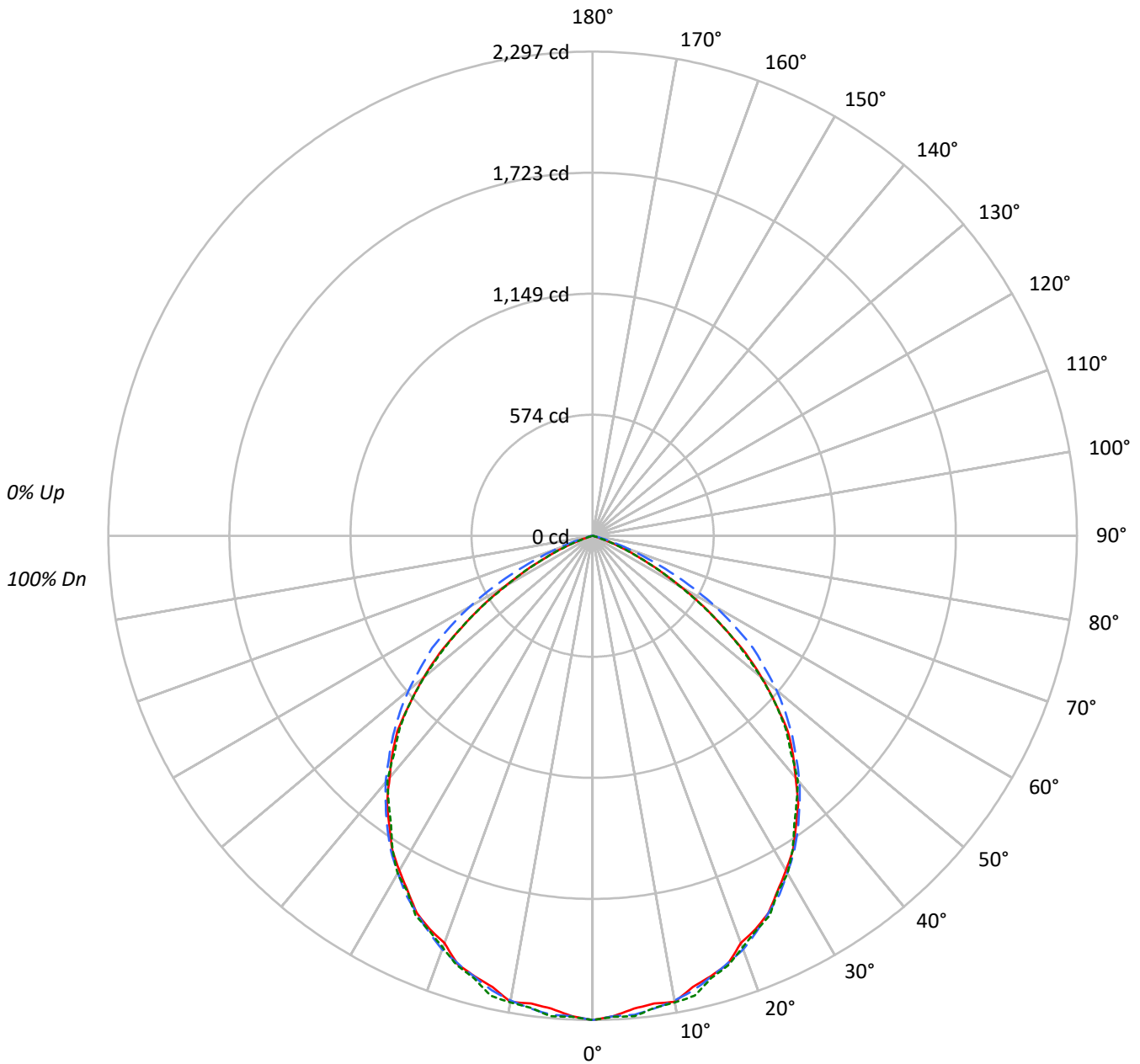
Lumens per Lamp: N/A
Luminaire Lumens: 4907.0 lumens
Efficiency: N/A
Efficacy: 76.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 63.9
Input Voltage (V):
Input Current (A_{in}): 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								
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°	221645	221645	221645
5°	218075	220903	221542
10°	219949	219313	220263
15°	216098	216417	217067
20°	211072	214419	213423
25°	210159	210159	211554
30°	204303	205763	206130
35°	197925	199856	196393
40°	188646	192337	190687
45°	178539	182551	176751
50°	157225	170945	156250
55°	127345	156431	127900
60°	93189	129720	91298
65°	56621	92375	55137
70°	22090	49737	21187
75°	2423	13384	2423
80°	1834	1834	1834
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	216.8	4.4
10°-20°	613.6	12.5
20°-30°	910.4	18.6
30°-40°	1054.9	21.5
40°-50°	1011.4	20.6
50°-60°	743.6	15.2
60°-70°	321.2	6.5
70°-80°	34.7	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°	1740.8	35.5
0°-40°	2795.7	57.0
0°-60°	4550.7	92.7
0°-90°	4907.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4907.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2297	2297	2297	2297	2297	
5°	2252	2274	2281	2284	2287	215
15°	2163	2176	2166	2170	2173	610
25°	1974	1971	1974	1977	1987	904
35°	1680	1690	1697	1693	1667	1051
45°	1308	1312	1338	1318	1295	995
55°	757	835	930	832	760	681
65°	248	310	405	307	242	255
75°	6	10	36	6	6	20
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°	2297.1	2297.1	2297.1	2297.1	2297.1	2297.1	2297.1	2297.1	2297.1	2297.1	2297.1
2.5°	2280.7	2306.8	2310.2	2293.8	2287.3	2277.5	2300.3	2284.1	2290.6	2284.1	2280.7
5°	2251.5	2280.7	2284.1	2284.1	2277.5	2274.2	2284.1	2280.7	2277.5	2271.0	2280.7
7.5°	2238.4	2254.7	2271.0	2251.5	2261.2	2258.0	2280.7	2271.0	2267.7	2267.7	2261.2
10°	2244.9	2241.6	2254.7	2235.1	2241.6	2235.1	2254.7	2254.7	2248.1	2241.6	2238.4
12.5°	2192.6	2218.7	2218.7	2215.5	2209.0	2199.1	2218.7	2231.9	2212.2	2212.2	2209.0
15°	2163.3	2169.8	2173.0	2173.0	2169.8	2176.4	2186.1	2173.0	2176.4	2160.0	2166.5
17.5°	2130.7	2117.7	2127.4	2120.9	2124.2	2130.7	2143.8	2143.8	2124.2	2120.9	2127.4
20°	2055.6	2094.8	2098.1	2078.5	2081.7	2081.7	2104.6	2085.0	2098.1	2081.7	2088.2
22.5°	2019.7	2045.8	2049.1	2023.0	2039.3	2019.7	2042.6	2013.2	2045.8	2023.0	2032.7
25°	1974.0	1970.8	1980.5	1967.5	1970.8	1970.8	1987.1	1974.0	1983.9	1970.8	1974.0
27.5°	1899.1	1925.2	1921.8	1908.8	1915.3	1912.1	1944.7	1908.8	1928.4	1912.1	1918.6
30°	1833.7	1856.6	1850.1	1837.0	1837.0	1827.2	1863.1	1853.3	1850.1	1850.1	1846.8
32.5°	1768.5	1771.8	1765.3	1768.5	1771.8	1758.7	1788.0	1775.0	1771.8	1775.0	1778.3
35°	1680.3	1680.3	1686.9	1677.1	1690.2	1690.2	1716.3	1699.9	1696.7	1686.9	1696.7
37.5°	1602.1	1592.3	1595.5	1595.5	1602.1	1608.6	1621.6	1615.1	1615.1	1605.4	1611.9
40°	1497.7	1491.2	1500.9	1500.9	1510.7	1510.7	1523.8	1517.3	1527.0	1527.0	1527.0
42.5°	1406.4	1406.4	1399.8	1409.6	1412.9	1409.6	1432.5	1429.1	1432.5	1425.9	1429.1
45°	1308.4	1308.4	1301.9	1298.7	1314.9	1311.7	1337.8	1328.0	1341.0	1334.5	1337.8
47.5°	1174.6	1191.0	1181.1	1191.0	1210.5	1213.9	1230.1	1223.6	1236.6	1226.9	1240.0
50°	1047.4	1047.4	1057.2	1070.2	1089.8	1093.1	1112.7	1125.7	1132.3	1135.4	1138.8
52.5°	913.7	910.3	920.2	936.4	952.8	965.8	985.4	1005.0	1018.0	1037.6	1027.7
55°	757.0	763.5	773.3	792.9	819.0	835.2	851.6	877.7	900.6	910.3	929.9
57.5°	623.2	616.6	623.2	649.3	678.7	691.7	714.6	740.7	773.3	792.9	799.4
60°	482.9	486.2	492.7	515.6	538.4	557.9	567.8	610.1	639.5	659.1	672.2
62.5°	355.7	362.2	368.8	388.3	411.1	427.5	443.7	479.7	505.8	525.3	538.4
65°	248.0	251.2	261.1	270.8	293.7	309.9	323.0	352.4	378.5	394.9	404.6
67.5°	153.4	156.6	163.1	176.3	192.5	205.5	218.6	238.2	261.1	277.3	280.6
70°	78.3	81.6	84.8	94.7	107.7	114.2	123.9	140.3	156.6	169.6	176.3
72.5°	26.1	26.1	29.4	35.9	42.5	49.0	52.2	68.6	81.6	88.1	91.3
75°	6.5	6.5	6.5	6.5	6.5	9.8	9.8	19.6	26.1	32.6	35.9
77.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	6.5	6.5
80°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
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°	2297.1	2297.1	2297.1	2297.1	2297.1	2297.1	2297.1	2297.1	2297.1	2297.1
2.5°	2297.1	2290.6	2287.3	2290.6	2290.6	2287.3	2297.1	2310.2	2326.4	2284.1
5°	2293.8	2287.3	2293.8	2274.2	2284.1	2277.5	2290.6	2287.3	2300.3	2287.3
7.5°	2284.1	2271.0	2274.2	2264.5	2277.5	2261.2	2271.0	2290.6	2277.5	2258.0
10°	2251.5	2244.9	2267.7	2235.1	2228.6	2241.6	2267.7	2248.1	2241.6	2248.1
12.5°	2218.7	2218.7	2228.6	2202.5	2205.7	2212.2	2225.2	2212.2	2218.7	2235.1
15°	2182.9	2176.4	2192.6	2173.0	2169.8	2163.3	2176.4	2176.4	2182.9	2173.0
17.5°	2140.4	2130.7	2130.7	2124.2	2120.9	2137.2	2143.8	2147.0	2150.3	2137.2
20°	2088.2	2085.0	2094.8	2085.0	2088.2	2091.6	2091.6	2085.0	2114.3	2078.5
22.5°	2032.7	2042.6	2029.5	2023.0	2029.5	2036.1	2036.1	2039.3	2032.7	2026.2
25°	1977.3	1983.9	1987.1	1967.5	1977.3	1967.5	1990.4	1993.6	1980.5	1987.1
27.5°	1928.4	1918.6	1915.3	1902.3	1908.8	1905.6	1908.8	1908.8	1928.4	1902.3
30°	1853.3	1843.6	1846.8	1837.0	1840.2	1837.0	1840.2	1840.2	1853.3	1850.1
32.5°	1781.5	1771.8	1775.0	1765.3	1765.3	1768.5	1761.9	1761.9	1771.8	1765.3
35°	1713.0	1690.2	1693.4	1690.2	1693.4	1680.3	1680.3	1677.1	1683.7	1667.3
37.5°	1615.1	1605.4	1602.1	1598.9	1602.1	1595.5	1602.1	1592.3	1602.1	1589.0
40°	1527.0	1520.5	1523.8	1504.2	1504.2	1507.4	1500.9	1497.7	1500.9	1513.9
42.5°	1439.0	1425.9	1419.4	1412.9	1416.1	1406.4	1403.0	1396.5	1403.0	1390.0
45°	1334.5	1334.5	1331.3	1314.9	1318.2	1318.2	1305.2	1292.1	1295.3	1295.3
47.5°	1240.0	1233.4	1230.1	1213.9	1210.5	1207.3	1194.2	1184.4	1184.4	1174.6
50°	1135.4	1128.9	1119.2	1102.8	1096.3	1076.7	1067.0	1054.0	1040.9	1040.9
52.5°	1037.6	1014.7	1001.7	975.6	965.8	956.0	929.9	920.2	910.3	900.6
55°	920.2	900.6	874.5	845.1	832.0	815.7	789.6	770.0	757.0	760.3
57.5°	806.0	773.3	747.2	708.1	691.7	681.9	655.8	629.7	616.6	616.6
60°	665.6	639.5	606.9	571.0	557.9	541.7	509.0	492.7	482.9	473.1
62.5°	531.8	512.3	482.9	437.2	427.5	411.1	388.3	368.8	358.9	358.9
65°	398.1	378.5	352.4	319.8	306.7	293.7	274.1	254.5	244.7	241.5
67.5°	280.6	257.7	235.0	208.9	199.0	192.5	172.9	159.9	153.4	150.0
70°	169.6	156.6	140.3	120.7	110.9	104.4	91.3	81.6	78.3	75.1
72.5°	88.1	78.3	65.2	52.2	45.7	39.1	32.6	26.1	22.9	22.9
75°	32.6	26.1	16.4	9.8	6.5	6.5	6.5	6.5	6.5	6.5
77.5°	6.5	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
80°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
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)