

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: P840212

Luminaire Tested: **LD4C55D010 EU4559035 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: P840212
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 EU4559035 4LBCSSQMMS
Description: 4 INCH 5500 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

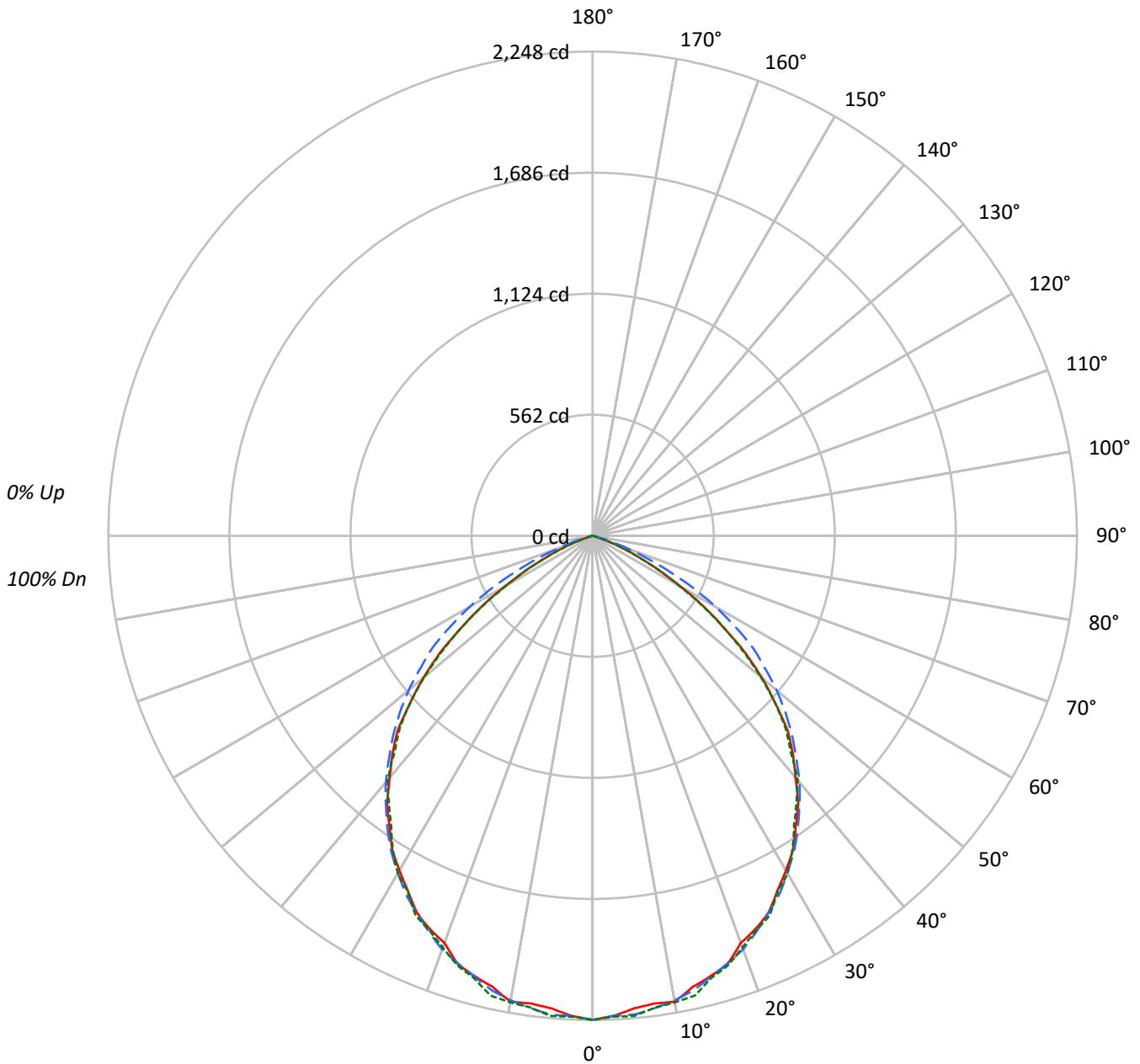
Lumens per Lamp: N/A
Luminaire Lumens: 4801.0 lumens
Efficiency: N/A
Efficacy: 75.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 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									
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°	216859	216859	216859
5°	213358	216137	216757
10°	215198	214580	215511
15°	211433	211742	212382
20°	206513	209788	208813
25°	205624	205624	206976
30°	199891	201317	201674
35°	193649	195545	192153
40°	184565	188180	186568
45°	174677	178607	172944
50°	153833	167253	152872
55°	124586	153050	125141
60°	91163	126902	89329
65°	55411	90366	53950
70°	21610	48665	20735
75°	2386	13123	2386
80°	1834	1834	1834
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	212.1	4.4
10°-20°	600.3	12.5
20°-30°	890.7	18.6
30°-40°	1032.1	21.5
40°-50°	989.5	20.6
50°-60°	727.6	15.2
60°-70°	314.2	6.5
70°-80°	33.9	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°	1703.2	35.5
0°-40°	2735.3	57.0
0°-60°	4452.4	92.7
0°-90°	4801.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4801.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2248	2248	2248	2248	2248	
5°	2203	2225	2232	2235	2238	210
15°	2117	2129	2120	2123	2126	597
25°	1931	1928	1931	1935	1944	884
35°	1644	1654	1660	1657	1631	1028
45°	1280	1283	1309	1290	1267	973
55°	741	817	910	814	744	666
65°	243	303	396	300	236	249
75°	6	10	35	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°	2247.5	2247.5	2247.5	2247.5	2247.5	2247.5	2247.5	2247.5	2247.5	2247.5	2247.5
2.5°	2231.5	2257.0	2260.3	2244.2	2237.9	2228.3	2250.6	2234.7	2241.1	2234.7	2231.5
5°	2202.8	2231.5	2234.7	2234.7	2228.3	2225.1	2234.7	2231.5	2228.3	2222.0	2231.5
7.5°	2190.1	2205.9	2222.0	2202.8	2212.3	2209.2	2231.5	2222.0	2218.7	2218.7	2212.3
10°	2196.4	2193.2	2205.9	2186.8	2193.2	2186.8	2205.9	2205.9	2199.6	2193.2	2190.1
12.5°	2145.3	2170.8	2170.8	2167.7	2161.3	2151.6	2170.8	2183.7	2164.4	2164.4	2161.3
15°	2116.6	2123.0	2126.1	2126.1	2123.0	2129.4	2138.9	2126.1	2129.4	2113.3	2119.7
17.5°	2084.7	2071.9	2081.4	2075.0	2078.3	2084.7	2097.4	2097.4	2078.3	2075.0	2081.4
20°	2011.2	2049.5	2052.8	2033.6	2036.8	2036.8	2059.2	2040.0	2052.8	2036.8	2043.1
22.5°	1976.1	2001.6	2004.8	1979.3	1995.2	1976.1	1998.5	1969.7	2001.6	1979.3	1988.8
25°	1931.4	1928.2	1937.8	1925.0	1928.2	1928.2	1944.1	1931.4	1941.0	1928.2	1931.4
27.5°	1858.0	1883.6	1880.3	1867.6	1873.9	1870.8	1902.7	1867.6	1886.7	1870.8	1877.2
30°	1794.1	1816.5	1810.1	1797.3	1797.3	1787.7	1822.9	1813.2	1810.1	1810.1	1806.9
32.5°	1730.3	1733.5	1727.1	1730.3	1733.5	1720.8	1749.4	1736.7	1733.5	1736.7	1739.9
35°	1644.0	1644.0	1650.4	1640.9	1653.7	1653.7	1679.2	1663.2	1660.1	1650.4	1660.1
37.5°	1567.5	1557.9	1561.1	1561.1	1567.5	1573.8	1586.6	1580.2	1580.2	1570.7	1577.1
40°	1465.3	1459.0	1468.5	1468.5	1478.1	1478.1	1490.9	1484.5	1494.0	1494.0	1494.0
42.5°	1376.0	1376.0	1369.6	1379.1	1382.4	1379.1	1401.5	1398.3	1401.5	1395.1	1398.3
45°	1280.1	1280.1	1273.7	1270.6	1286.5	1283.4	1308.9	1299.3	1312.0	1305.6	1308.9
47.5°	1149.2	1165.2	1155.6	1165.2	1184.4	1187.6	1203.5	1197.1	1209.9	1200.4	1213.2
50°	1024.8	1024.8	1034.3	1047.1	1066.2	1069.5	1088.6	1101.4	1107.8	1110.9	1114.2
52.5°	893.9	890.7	900.3	916.2	932.2	945.0	964.1	983.3	996.0	1015.2	1005.5
55°	740.6	747.0	756.6	775.8	801.3	817.2	833.2	858.8	881.2	890.7	909.8
57.5°	609.7	603.3	609.7	635.2	664.0	676.8	699.2	724.7	756.6	775.8	782.2
60°	472.4	475.7	482.1	504.5	526.7	545.9	555.5	596.9	625.7	644.9	657.6
62.5°	348.0	354.4	360.8	379.9	402.2	418.2	434.1	469.3	494.8	514.0	526.7
65°	242.7	245.8	255.4	264.9	287.3	303.2	316.0	344.8	370.3	386.3	395.8
67.5°	150.1	153.2	159.6	172.5	188.3	201.1	213.9	233.0	255.4	271.3	274.6
70°	76.6	79.8	83.0	92.6	105.4	111.8	121.3	137.3	153.2	165.9	172.5
72.5°	25.5	25.5	28.8	35.2	41.5	47.9	51.1	67.1	79.8	86.2	89.4
75°	6.4	6.4	6.4	6.4	6.4	9.6	9.6	19.1	25.5	31.9	35.2
77.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	6.4	6.4
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°	2247.5	2247.5	2247.5	2247.5	2247.5	2247.5	2247.5	2247.5	2247.5	2247.5
2.5°	2247.5	2241.1	2237.9	2241.1	2241.1	2237.9	2247.5	2260.3	2276.2	2234.7
5°	2244.2	2237.9	2244.2	2225.1	2234.7	2228.3	2241.1	2237.9	2250.6	2237.9
7.5°	2234.7	2222.0	2225.1	2215.6	2228.3	2212.3	2222.0	2241.1	2228.3	2209.2
10°	2202.8	2196.4	2218.7	2186.8	2180.4	2193.2	2218.7	2199.6	2193.2	2199.6
12.5°	2170.8	2170.8	2180.4	2154.9	2158.0	2164.4	2177.2	2164.4	2170.8	2186.8
15°	2135.7	2129.4	2145.3	2126.1	2123.0	2116.6	2129.4	2129.4	2135.7	2126.1
17.5°	2094.2	2084.7	2084.7	2078.3	2075.0	2091.1	2097.4	2100.6	2103.8	2091.1
20°	2043.1	2040.0	2049.5	2040.0	2043.1	2046.4	2046.4	2040.0	2068.7	2033.6
22.5°	1988.8	1998.5	1985.7	1979.3	1985.7	1992.1	1992.1	1995.2	1988.8	1982.4
25°	1934.6	1941.0	1944.1	1925.0	1934.6	1925.0	1947.4	1950.5	1937.8	1944.1
27.5°	1886.7	1877.2	1873.9	1861.2	1867.6	1864.4	1867.6	1867.6	1886.7	1861.2
30°	1813.2	1803.7	1806.9	1797.3	1800.5	1797.3	1800.5	1800.5	1813.2	1810.1
32.5°	1743.0	1733.5	1736.7	1727.1	1727.1	1730.3	1723.9	1723.9	1733.5	1727.1
35°	1676.0	1653.7	1656.8	1653.7	1656.8	1644.0	1644.0	1640.9	1647.3	1631.3
37.5°	1580.2	1570.7	1567.5	1564.3	1567.5	1561.1	1567.5	1557.9	1567.5	1554.7
40°	1494.0	1487.6	1490.9	1471.7	1471.7	1474.8	1468.5	1465.3	1468.5	1481.2
42.5°	1407.9	1395.1	1388.7	1382.4	1385.5	1376.0	1372.7	1366.3	1372.7	1360.0
45°	1305.6	1305.6	1302.5	1286.5	1289.8	1289.8	1277.0	1264.2	1267.4	1267.4
47.5°	1213.2	1206.8	1203.5	1187.6	1184.4	1181.3	1168.4	1158.9	1158.9	1149.2
50°	1110.9	1104.5	1095.0	1079.0	1072.6	1053.5	1044.0	1031.2	1018.4	1018.4
52.5°	1015.2	992.8	980.0	954.5	945.0	935.3	909.8	900.3	890.7	881.2
55°	900.3	881.2	855.6	826.8	814.1	798.1	772.5	753.4	740.6	743.9
57.5°	788.5	756.6	731.1	692.8	676.8	667.2	641.6	616.1	603.3	603.3
60°	651.3	625.7	593.8	558.7	545.9	530.0	498.0	482.1	472.4	462.9
62.5°	520.4	501.2	472.4	427.7	418.2	402.2	379.9	360.8	351.2	351.2
65°	389.5	370.3	344.8	312.9	300.1	287.3	268.2	249.0	239.4	236.3
67.5°	274.6	252.2	229.9	204.4	194.7	188.3	169.2	156.4	150.1	146.8
70°	165.9	153.2	137.3	118.1	108.5	102.1	89.4	79.8	76.6	73.5
72.5°	86.2	76.6	63.8	51.1	44.7	38.3	31.9	25.5	22.4	22.4
75°	31.9	25.5	16.0	9.6	6.4	6.4	6.4	6.4	6.4	6.4
77.5°	6.4	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)