

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: P840208

Luminaire Tested: **LD4C55D010 EU4559027 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: P840208  
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 EU4559027 4LBCSSQMMS  
Description: 4 INCH 5500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS  
AND 4LBCSSQ TRIM WITH MMS FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

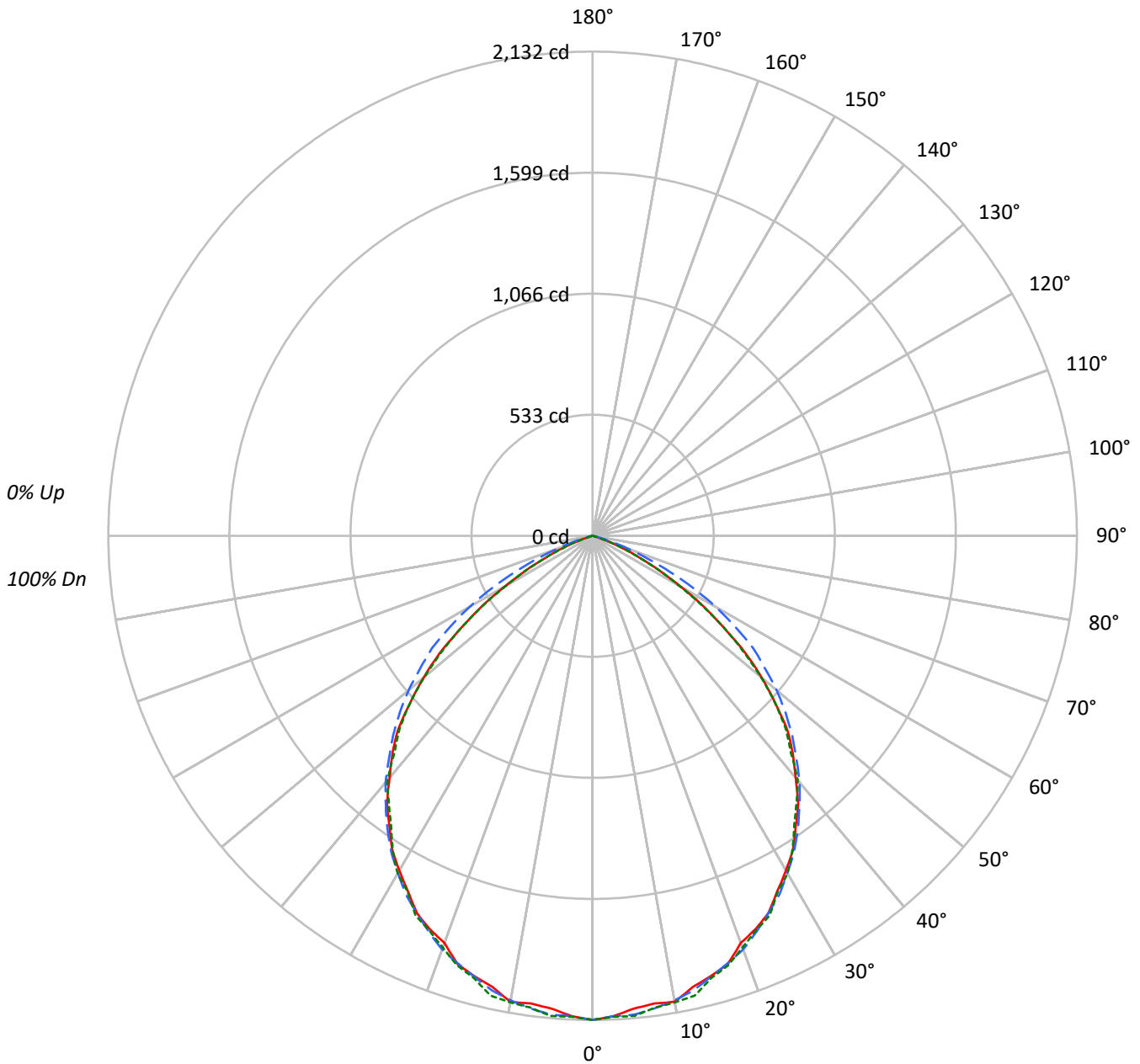
Lumens per Lamp: N/A  
Luminaire Lumens: 4554.0 lumens  
Efficiency: N/A  
Efficacy: 71.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 63.9  
Input Voltage (V):  
Input Current (A<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				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°	205705	205705	205705
5°	202384	205018	205599
10°	204126	203538	204420
15°	200554	200854	201454
20°	195885	198996	198072
25°	195042	195042	196330
30°	189607	190956	191301
35°	183695	185486	182270
40°	175068	178494	176970
45°	165698	169424	164047
50°	145922	158651	145006
55°	118177	145177	118698
60°	86473	120380	84737
65°	52557	85731	51165
70°	20482	46154	19663
75°	2274	12452	2274
80°	1723	1723	1723
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	201.2	4.4
10°-20°	569.4	12.5
20°-30°	844.9	18.6
30°-40°	979.0	21.5
40°-50°	938.6	20.6
50°-60°	690.1	15.2
60°-70°	298.1	6.5
70°-80°	32.2	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°	1615.6	35.5
0°-40°	2594.6	57.0
0°-60°	4223.3	92.7
0°-90°	4554.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4554.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2132	2132	2132	2132	2132	
5°	2090	2111	2117	2120	2123	199
15°	2008	2020	2011	2014	2017	566
25°	1832	1829	1832	1835	1844	839
35°	1560	1569	1575	1572	1547	975
45°	1214	1217	1242	1223	1202	923
55°	702	775	863	772	706	632
65°	230	288	376	285	224	237
75°	6	9	33	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°	2131.9	2131.9	2131.9	2131.9	2131.9	2131.9	2131.9	2131.9	2131.9	2131.9	2131.9
2.5°	2116.7	2140.9	2144.0	2128.8	2122.7	2113.7	2134.8	2119.8	2125.8	2119.8	2116.7
5°	2089.5	2116.7	2119.8	2119.8	2113.7	2110.6	2119.8	2116.7	2113.7	2107.7	2116.7
7.5°	2077.4	2092.5	2107.7	2089.5	2098.5	2095.5	2116.7	2107.7	2104.6	2104.6	2098.5
10°	2083.4	2080.3	2092.5	2074.3	2080.3	2074.3	2092.5	2092.5	2086.4	2080.3	2077.4
12.5°	2034.9	2059.1	2059.1	2056.1	2050.1	2040.9	2059.1	2071.3	2053.0	2053.0	2050.1
15°	2007.7	2013.8	2016.7	2016.7	2013.8	2019.8	2028.8	2016.7	2019.8	2004.6	2010.7
17.5°	1977.4	1965.3	1974.3	1968.3	1971.4	1977.4	1989.5	1989.5	1971.4	1968.3	1974.3
20°	1907.7	1944.1	1947.2	1929.0	1932.0	1932.0	1953.2	1935.1	1947.2	1932.0	1938.0
22.5°	1874.4	1898.6	1901.7	1877.5	1892.6	1874.4	1895.6	1868.3	1898.6	1877.5	1886.5
25°	1832.0	1829.0	1838.1	1826.0	1829.0	1829.0	1844.1	1832.0	1841.2	1829.0	1832.0
27.5°	1762.5	1786.7	1783.6	1771.5	1777.5	1774.6	1804.8	1771.5	1789.6	1774.6	1780.6
30°	1701.8	1723.0	1717.0	1704.9	1704.9	1695.7	1729.1	1720.0	1717.0	1717.0	1713.9
32.5°	1641.3	1644.3	1638.3	1641.3	1644.3	1632.2	1659.4	1647.3	1644.3	1647.3	1650.4
35°	1559.5	1559.5	1565.5	1556.5	1568.6	1568.6	1592.8	1577.6	1574.7	1565.5	1574.7
37.5°	1486.8	1477.8	1480.8	1480.8	1486.8	1492.9	1505.0	1498.9	1498.9	1489.9	1496.0
40°	1389.9	1383.9	1392.9	1392.9	1402.1	1402.1	1414.2	1408.1	1417.1	1417.1	1417.1
42.5°	1305.2	1305.2	1299.1	1308.2	1311.2	1308.2	1329.4	1326.3	1329.4	1323.4	1326.3
45°	1214.3	1214.3	1208.2	1205.2	1220.3	1217.3	1241.6	1232.4	1244.5	1238.5	1241.6
47.5°	1090.1	1105.3	1096.1	1105.3	1123.4	1126.5	1141.6	1135.6	1147.7	1138.6	1150.8
50°	972.1	972.1	981.1	993.2	1011.4	1014.5	1032.6	1044.7	1050.8	1053.8	1056.9
52.5°	847.9	844.8	854.0	869.1	884.3	896.4	914.5	932.7	944.8	963.0	953.8
55°	702.5	708.6	717.7	735.9	760.1	775.2	790.4	814.6	835.8	844.8	863.0
57.5°	578.3	572.3	578.3	602.6	629.9	642.0	663.2	687.4	717.7	735.9	741.9
60°	448.1	451.2	457.3	478.5	499.6	517.8	526.9	566.2	593.5	611.7	623.8
62.5°	330.1	336.2	342.2	360.4	381.5	396.7	411.8	445.2	469.4	487.5	499.6
65°	230.2	233.1	242.3	251.3	272.6	287.6	299.7	327.0	351.3	366.5	375.5
67.5°	142.3	145.3	151.4	163.6	178.7	190.8	202.9	221.0	242.3	257.4	260.4
70°	72.6	75.7	78.7	87.8	100.0	106.0	115.0	130.2	145.3	157.4	163.6
72.5°	24.2	24.2	27.3	33.4	39.4	45.5	48.4	63.6	75.7	81.8	84.8
75°	6.1	6.1	6.1	6.1	6.1	9.1	9.1	18.2	24.2	30.3	33.4
77.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	6.1	6.1
80°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
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°	2131.9	2131.9	2131.9	2131.9	2131.9	2131.9	2131.9	2131.9	2131.9	2131.9
2.5°	2131.9	2125.8	2122.7	2125.8	2125.8	2122.7	2131.9	2144.0	2159.1	2119.8
5°	2128.8	2122.7	2128.8	2110.6	2119.8	2113.7	2125.8	2122.7	2134.8	2122.7
7.5°	2119.8	2107.7	2110.6	2101.6	2113.7	2098.5	2107.7	2125.8	2113.7	2095.5
10°	2089.5	2083.4	2104.6	2074.3	2068.2	2080.3	2104.6	2086.4	2080.3	2086.4
12.5°	2059.1	2059.1	2068.2	2044.0	2047.0	2053.0	2065.2	2053.0	2059.1	2074.3
15°	2025.9	2019.8	2034.9	2016.7	2013.8	2007.7	2019.8	2019.8	2025.9	2016.7
17.5°	1986.5	1977.4	1977.4	1971.4	1968.3	1983.5	1989.5	1992.5	1995.6	1983.5
20°	1938.0	1935.1	1944.1	1935.1	1938.0	1941.1	1941.1	1935.1	1962.2	1929.0
22.5°	1886.5	1895.6	1883.5	1877.5	1883.5	1889.6	1889.6	1892.6	1886.5	1880.4
25°	1835.1	1841.2	1844.1	1826.0	1835.1	1826.0	1847.2	1850.2	1838.1	1844.1
27.5°	1789.6	1780.6	1777.5	1765.4	1771.5	1768.5	1771.5	1771.5	1789.6	1765.4
30°	1720.0	1710.9	1713.9	1704.9	1707.8	1704.9	1707.8	1707.8	1720.0	1717.0
32.5°	1653.4	1644.3	1647.3	1638.3	1638.3	1641.3	1635.2	1635.2	1644.3	1638.3
35°	1589.7	1568.6	1571.6	1568.6	1571.6	1559.5	1559.5	1556.5	1562.5	1547.4
37.5°	1498.9	1489.9	1486.8	1483.8	1486.8	1480.8	1486.8	1477.8	1486.8	1474.7
40°	1417.1	1411.1	1414.2	1396.0	1396.0	1399.0	1392.9	1389.9	1392.9	1405.0
42.5°	1335.5	1323.4	1317.3	1311.2	1314.2	1305.2	1302.1	1296.0	1302.1	1290.0
45°	1238.5	1238.5	1235.5	1220.3	1223.4	1223.4	1211.3	1199.2	1202.2	1202.2
47.5°	1150.8	1144.7	1141.6	1126.5	1123.4	1120.5	1108.3	1099.2	1099.2	1090.1
50°	1053.8	1047.7	1038.7	1023.5	1017.4	999.3	990.3	978.1	966.0	966.0
52.5°	963.0	941.7	929.6	905.4	896.4	887.2	863.0	854.0	844.8	835.8
55°	854.0	835.8	811.6	784.3	772.2	757.0	732.8	714.6	702.5	705.6
57.5°	748.0	717.7	693.5	657.2	642.0	632.8	608.6	584.4	572.3	572.3
60°	617.8	593.5	563.3	529.9	517.8	502.7	472.3	457.3	448.1	439.1
62.5°	493.6	475.4	448.1	405.7	396.7	381.5	360.4	342.2	333.1	333.1
65°	369.4	351.3	327.0	296.8	284.7	272.6	254.4	236.2	227.1	224.1
67.5°	260.4	239.2	218.1	193.8	184.7	178.7	160.5	148.4	142.3	139.2
70°	157.4	145.3	130.2	112.1	102.9	96.9	84.8	75.7	72.6	69.7
72.5°	81.8	72.6	60.5	48.4	42.4	36.3	30.3	24.2	21.2	21.2
75°	30.3	24.2	15.2	9.1	6.1	6.1	6.1	6.1	6.1	6.1
77.5°	6.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
80°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
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)