

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: P840209

Luminaire Tested: **LD4C55D010 EU4559027 4LBCSSQMW**

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: P840209
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 4LBCSSQMW
Description: 4 INCH 5500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MW FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

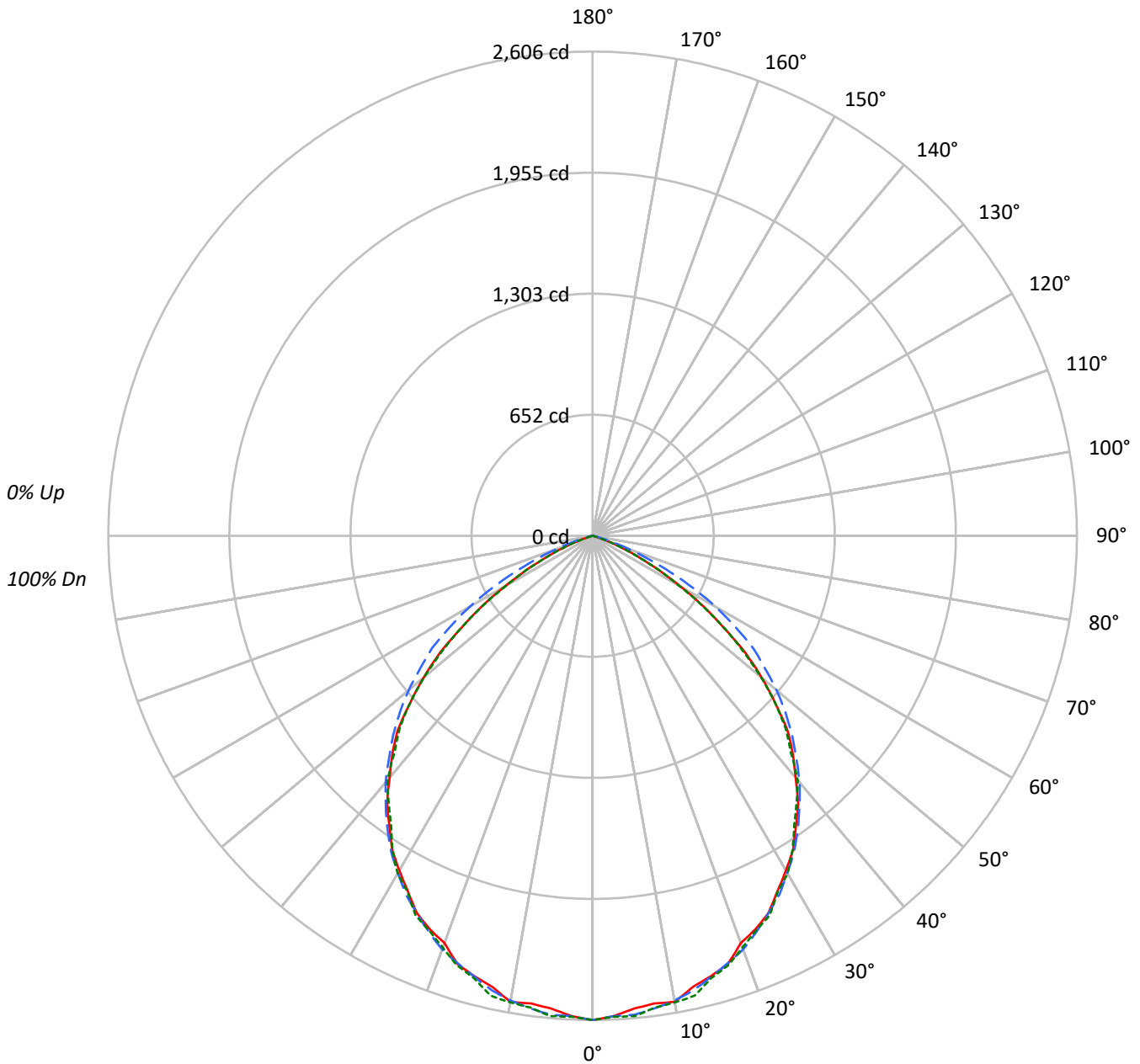
Lumens per Lamp: N/A
Luminaire Lumens: 5567.0 lumens
Efficiency: N/A
Efficacy: 87.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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				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°	251460	251460	251460
5°	247403	250619	251335
10°	249539	248814	249891
15°	245167	245526	246265
20°	239463	243262	242133
25°	238425	238425	240001
30°	231778	233427	233851
35°	224545	226736	222802
40°	214014	218208	216344
45°	202555	207099	200536
50°	178376	193927	177265
55°	144470	177476	145109
60°	105713	147165	103590
65°	64247	104795	62558
70°	25052	56423	24036
75°	2759	15210	2759
80°	2111	2111	2111
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	246.0	4.4
10°-20°	696.1	12.5
20°-30°	1032.8	18.6
30°-40°	1196.8	21.5
40°-50°	1147.4	20.6
50°-60°	843.7	15.2
60°-70°	364.4	6.5
70°-80°	39.4	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°	1974.9	35.5
0°-40°	3171.7	57.0
0°-60°	5162.8	92.7
0°-90°	5567.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5567.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2606	2606	2606	2606	2606	
5°	2554	2580	2588	2591	2595	244
15°	2454	2469	2458	2462	2465	692
25°	2240	2236	2240	2243	2254	1025
35°	1906	1918	1925	1921	1892	1192
45°	1484	1488	1518	1496	1470	1128
55°	859	948	1055	944	863	773
65°	281	352	459	348	274	289
75°	7	11	41	7	7	23
85°	0	0	0	0	0	1
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°	2606.1	2606.1	2606.1	2606.1	2606.1	2606.1	2606.1	2606.1	2606.1	2606.1	2606.1
2.5°	2587.5	2617.1	2620.9	2602.3	2594.9	2583.9	2609.7	2591.3	2598.7	2591.3	2587.5
5°	2554.3	2587.5	2591.3	2591.3	2583.9	2580.1	2591.3	2587.5	2583.9	2576.5	2587.5
7.5°	2539.5	2557.9	2576.5	2554.3	2565.3	2561.7	2587.5	2576.5	2572.7	2572.7	2565.3
10°	2546.9	2543.1	2557.9	2535.7	2543.1	2535.7	2557.9	2557.9	2550.5	2543.1	2539.5
12.5°	2487.5	2517.1	2517.1	2513.5	2506.1	2494.9	2517.1	2532.1	2509.7	2509.7	2506.1
15°	2454.3	2461.7	2465.3	2465.3	2461.7	2469.1	2480.1	2465.3	2469.1	2450.5	2457.9
17.5°	2417.3	2402.5	2413.5	2406.1	2409.9	2417.3	2432.1	2432.1	2409.9	2406.1	2413.5
20°	2332.1	2376.5	2380.3	2358.1	2361.7	2361.7	2387.7	2365.5	2380.3	2361.7	2369.1
22.5°	2291.3	2320.9	2324.7	2295.1	2313.5	2291.3	2317.3	2283.9	2320.9	2295.1	2306.1
25°	2239.5	2235.9	2246.9	2232.1	2235.9	2235.9	2254.3	2239.5	2250.7	2235.9	2239.5
27.5°	2154.5	2184.1	2180.3	2165.5	2172.9	2169.3	2206.3	2165.5	2187.7	2169.3	2176.7
30°	2080.3	2106.3	2098.9	2084.1	2084.1	2072.9	2113.7	2102.5	2098.9	2098.9	2095.1
32.5°	2006.3	2010.1	2002.7	2006.3	2010.1	1995.3	2028.5	2013.7	2010.1	2013.7	2017.5
35°	1906.3	1906.3	1913.8	1902.7	1917.5	1917.5	1947.1	1928.6	1924.9	1913.8	1924.9
37.5°	1817.5	1806.5	1810.1	1810.1	1817.5	1824.9	1839.7	1832.3	1832.3	1821.3	1828.7
40°	1699.1	1691.7	1702.8	1702.8	1713.9	1713.9	1728.7	1721.3	1732.4	1732.4	1732.4
42.5°	1595.5	1595.5	1588.1	1599.1	1602.9	1599.1	1625.1	1621.3	1625.1	1617.7	1621.3
45°	1484.4	1484.4	1477.0	1473.3	1491.8	1488.1	1517.7	1506.6	1521.4	1514.0	1517.7
47.5°	1332.6	1351.1	1340.0	1351.1	1373.3	1377.1	1395.6	1388.2	1403.0	1391.9	1406.7
50°	1188.3	1188.3	1199.4	1214.2	1236.4	1240.1	1262.3	1277.1	1284.5	1288.2	1291.9
52.5°	1036.5	1032.8	1043.9	1062.4	1080.9	1095.7	1118.0	1140.2	1155.0	1177.2	1166.0
55°	858.8	866.2	877.4	899.6	929.2	947.6	966.2	995.8	1021.7	1032.8	1055.0
57.5°	707.0	699.6	707.0	736.6	770.0	784.8	810.7	840.3	877.4	899.6	907.0
60°	547.8	551.6	559.0	585.0	610.8	633.0	644.2	692.2	725.6	747.8	762.6
62.5°	403.6	411.0	418.4	440.6	466.4	485.0	503.4	544.2	573.8	596.0	610.8
65°	281.4	285.0	296.2	307.2	333.2	351.6	366.4	399.8	429.4	448.0	459.0
67.5°	174.0	177.6	185.0	200.0	218.4	233.2	248.0	270.2	296.2	314.6	318.4
70°	88.8	92.6	96.2	107.4	122.2	129.6	140.6	159.2	177.6	192.4	200.0
72.5°	29.6	29.6	33.4	40.8	48.2	55.6	59.2	77.8	92.6	100.0	103.6
75°	7.4	7.4	7.4	7.4	7.4	11.2	11.2	22.2	29.6	37.0	40.8
77.5°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	7.4	7.4
80°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
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°	2606.1	2606.1	2606.1	2606.1	2606.1	2606.1	2606.1	2606.1	2606.1	2606.1
2.5°	2606.1	2598.7	2594.9	2598.7	2598.7	2594.9	2606.1	2620.9	2639.3	2591.3
5°	2602.3	2594.9	2602.3	2580.1	2591.3	2583.9	2598.7	2594.9	2609.7	2594.9
7.5°	2591.3	2576.5	2580.1	2569.1	2583.9	2565.3	2576.5	2598.7	2583.9	2561.7
10°	2554.3	2546.9	2572.7	2535.7	2528.3	2543.1	2572.7	2550.5	2543.1	2550.5
12.5°	2517.1	2517.1	2528.3	2498.7	2502.3	2509.7	2524.5	2509.7	2517.1	2535.7
15°	2476.5	2469.1	2487.5	2465.3	2461.7	2454.3	2469.1	2469.1	2476.5	2465.3
17.5°	2428.3	2417.3	2417.3	2409.9	2406.1	2424.7	2432.1	2435.7	2439.5	2424.7
20°	2369.1	2365.5	2376.5	2365.5	2369.1	2372.9	2372.9	2365.5	2398.7	2358.1
22.5°	2306.1	2317.3	2302.5	2295.1	2302.5	2309.9	2309.9	2313.5	2306.1	2298.7
25°	2243.3	2250.7	2254.3	2232.1	2243.3	2232.1	2258.1	2261.7	2246.9	2254.3
27.5°	2187.7	2176.7	2172.9	2158.1	2165.5	2161.9	2165.5	2165.5	2187.7	2158.1
30°	2102.5	2091.5	2095.1	2084.1	2087.7	2084.1	2087.7	2087.7	2102.5	2098.9
32.5°	2021.1	2010.1	2013.7	2002.7	2002.7	2006.3	1998.9	1998.9	2010.1	2002.7
35°	1943.4	1917.5	1921.2	1917.5	1921.2	1906.3	1906.3	1902.7	1910.1	1891.5
37.5°	1832.3	1821.3	1817.5	1813.9	1817.5	1810.1	1817.5	1806.5	1817.5	1802.7
40°	1732.4	1725.0	1728.7	1706.5	1706.5	1710.2	1702.8	1699.1	1702.8	1717.6
42.5°	1632.5	1617.7	1610.3	1602.9	1606.5	1595.5	1591.7	1584.3	1591.7	1576.9
45°	1514.0	1514.0	1510.3	1491.8	1495.5	1495.5	1480.7	1465.9	1469.6	1469.6
47.5°	1406.7	1399.3	1395.6	1377.1	1373.3	1369.7	1354.8	1343.7	1343.7	1332.6
50°	1288.2	1280.8	1269.7	1251.2	1243.8	1221.6	1210.5	1195.7	1180.9	1180.9
52.5°	1177.2	1151.2	1136.4	1106.8	1095.7	1084.6	1055.0	1043.9	1032.8	1021.7
55°	1043.9	1021.7	992.1	958.8	944.0	925.4	895.8	873.6	858.8	862.6
57.5°	914.4	877.4	847.8	803.3	784.8	773.6	744.0	714.4	699.6	699.6
60°	755.2	725.6	688.6	647.8	633.0	614.6	577.4	559.0	547.8	536.8
62.5°	603.4	581.2	547.8	496.0	485.0	466.4	440.6	418.4	407.2	407.2
65°	451.6	429.4	399.8	362.8	348.0	333.2	311.0	288.8	277.6	274.0
67.5°	318.4	292.4	266.6	237.0	225.8	218.4	196.2	181.4	174.0	170.2
70°	192.4	177.6	159.2	137.0	125.8	118.4	103.6	92.6	88.8	85.2
72.5°	100.0	88.8	74.0	59.2	51.8	44.4	37.0	29.6	26.0	26.0
75°	37.0	29.6	18.6	11.2	7.4	7.4	7.4	7.4	7.4	7.4
77.5°	7.4	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
80°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
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)