

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: P840235

Luminaire Tested: **LD4C65D010 EU4659040 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: P840235
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: LD4C65D010 EU4659040 4LBCSSQMW
Description: 4 INCH 6500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MW FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

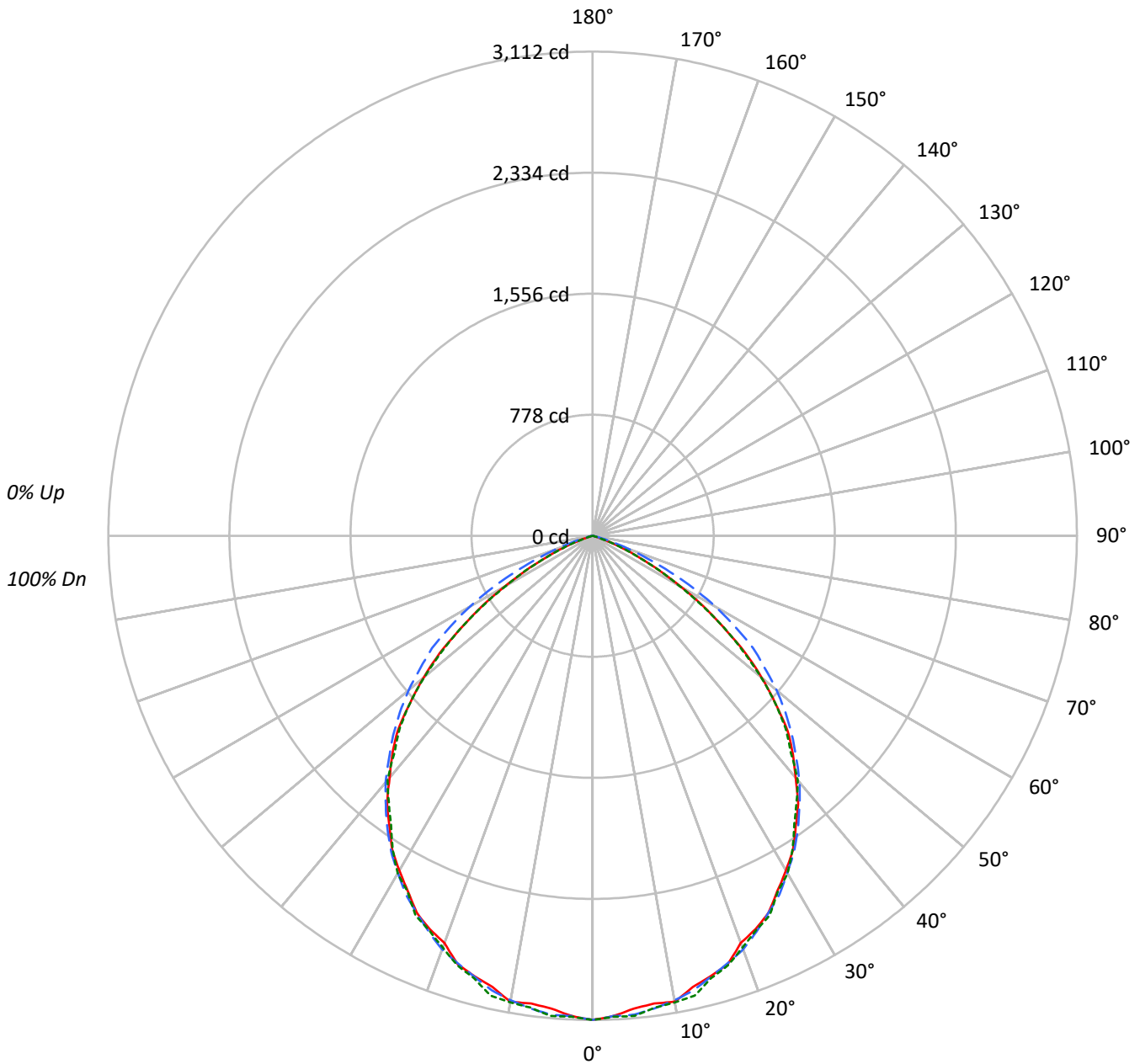
Lumens per Lamp: N/A
Luminaire Lumens: 6647.0 lumens
Efficiency: N/A
Efficacy: 91.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 72.4
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°	300244	300244	300244
5°	295396	299241	300093
10°	297949	297077	298371
15°	292725	293165	294044
20°	285916	290455	289110
25°	284684	284684	286568
30°	276746	278718	279219
35°	268116	270731	266031
40°	255542	260530	258313
45°	241841	247285	239439
50°	212991	231560	211655
55°	172496	211894	173253
60°	126227	175706	123679
65°	76713	125115	74681
70°	29904	67369	28691
75°	3281	18156	3281
80°	2500	2500	2500
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	293.7	4.4
10°-20°	831.1	12.5
20°-30°	1233.2	18.6
30°-40°	1428.9	21.5
40°-50°	1370.0	20.6
50°-60°	1007.3	15.2
60°-70°	435.1	6.5
70°-80°	47.0	0.7
80°-90°	0.6	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°	2358.1	35.5
0°-40°	3787.0	57.0
0°-60°	6164.3	92.7
0°-90°	6647.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6647.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3112	3112	3112	3112	3112	
5°	3050	3081	3090	3094	3098	291
15°	2930	2948	2935	2939	2944	826
25°	2674	2670	2674	2678	2692	1224
35°	2276	2290	2298	2294	2258	1423
45°	1772	1777	1812	1786	1755	1347
55°	1025	1131	1260	1127	1030	923
65°	336	420	548	416	327	345
75°	9	13	49	9	9	27
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°	3111.7	3111.7	3111.7	3111.7	3111.7	3111.7	3111.7	3111.7	3111.7	3111.7	3111.7
2.5°	3089.5	3124.8	3129.3	3107.2	3098.3	3085.2	3116.0	3094.0	3102.8	3094.0	3089.5
5°	3049.8	3089.5	3094.0	3094.0	3085.2	3080.7	3094.0	3089.5	3085.2	3076.3	3089.5
7.5°	3032.1	3054.1	3076.3	3049.8	3063.0	3058.6	3089.5	3076.3	3071.8	3071.8	3063.0
10°	3041.0	3036.5	3054.1	3027.6	3036.5	3027.6	3054.1	3054.1	3045.3	3036.5	3032.1
12.5°	2970.1	3005.5	3005.5	3001.1	2992.3	2978.9	3005.5	3023.3	2996.6	2996.6	2992.3
15°	2930.4	2939.3	2943.6	2943.6	2939.3	2948.1	2961.3	2943.6	2948.1	2925.9	2934.8
17.5°	2886.2	2868.6	2881.7	2872.9	2877.4	2886.2	2903.9	2903.9	2877.4	2872.9	2881.7
20°	2784.5	2837.6	2842.1	2815.6	2819.9	2819.9	2850.9	2824.4	2842.1	2819.9	2828.7
22.5°	2735.9	2771.2	2775.7	2740.4	2762.4	2735.9	2766.9	2727.0	2771.2	2740.4	2753.5
25°	2674.0	2669.7	2682.8	2665.2	2669.7	2669.7	2691.7	2674.0	2687.3	2669.7	2674.0
27.5°	2572.5	2607.8	2603.3	2585.6	2594.5	2590.1	2634.3	2585.6	2612.1	2590.1	2599.0
30°	2483.9	2514.9	2506.1	2488.4	2488.4	2475.1	2523.8	2510.4	2506.1	2506.1	2501.6
32.5°	2395.6	2400.1	2391.2	2395.6	2400.1	2382.4	2422.1	2404.4	2400.1	2404.4	2408.9
35°	2276.2	2276.2	2285.0	2271.9	2289.5	2289.5	2324.9	2302.7	2298.4	2285.0	2298.4
37.5°	2170.1	2157.0	2161.3	2161.3	2170.1	2179.0	2196.7	2187.8	2187.8	2174.6	2183.5
40°	2028.8	2019.9	2033.1	2033.1	2046.4	2046.4	2064.1	2055.3	2068.4	2068.4	2068.4
42.5°	1905.0	1905.0	1896.2	1909.4	1913.9	1909.4	1940.4	1935.9	1940.4	1931.6	1935.9
45°	1772.3	1772.3	1763.5	1759.2	1781.2	1776.8	1812.2	1798.8	1816.5	1807.7	1812.2
47.5°	1591.1	1613.3	1599.9	1613.3	1639.8	1644.3	1666.3	1657.5	1675.1	1662.0	1679.6
50°	1418.9	1418.9	1432.0	1449.7	1476.2	1480.7	1507.2	1524.9	1533.7	1538.1	1542.6
52.5°	1237.6	1233.1	1246.5	1268.5	1290.7	1308.3	1334.8	1361.3	1379.0	1405.5	1392.2
55°	1025.4	1034.2	1047.6	1074.1	1109.4	1131.4	1153.6	1188.9	1220.0	1233.1	1259.6
57.5°	844.1	835.3	844.1	879.5	919.3	937.0	968.0	1003.4	1047.6	1074.1	1082.9
60°	654.1	658.6	667.4	698.4	729.3	755.8	769.1	826.5	866.3	892.8	910.5
62.5°	481.8	490.7	499.5	526.0	556.9	579.1	601.1	649.7	685.1	711.6	729.3
65°	336.0	340.3	353.6	366.8	397.8	419.8	437.5	477.3	512.7	534.9	548.0
67.5°	207.7	212.1	220.9	238.8	260.8	278.4	296.1	322.6	353.6	375.6	380.1
70°	106.0	110.5	114.9	128.2	145.9	154.7	167.9	190.1	212.1	229.7	238.8
72.5°	35.3	35.3	39.9	48.7	57.5	66.4	70.7	92.9	110.5	119.4	123.7
75°	8.8	8.8	8.8	8.8	8.8	13.3	13.3	26.5	35.3	44.2	48.7
77.5°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	8.8	8.8
80°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
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°	3111.7	3111.7	3111.7	3111.7	3111.7	3111.7	3111.7	3111.7	3111.7	3111.7
2.5°	3111.7	3102.8	3098.3	3102.8	3102.8	3098.3	3111.7	3129.3	3151.3	3094.0
5°	3107.2	3098.3	3107.2	3080.7	3094.0	3085.2	3102.8	3098.3	3116.0	3098.3
7.5°	3094.0	3076.3	3080.7	3067.5	3085.2	3063.0	3076.3	3102.8	3085.2	3058.6
10°	3049.8	3041.0	3071.8	3027.6	3018.8	3036.5	3071.8	3045.3	3036.5	3045.3
12.5°	3005.5	3005.5	3018.8	2983.5	2987.8	2996.6	3014.3	2996.6	3005.5	3027.6
15°	2956.9	2948.1	2970.1	2943.6	2939.3	2930.4	2948.1	2948.1	2956.9	2943.6
17.5°	2899.4	2886.2	2886.2	2877.4	2872.9	2895.1	2903.9	2908.3	2912.8	2895.1
20°	2828.7	2824.4	2837.6	2824.4	2828.7	2833.2	2833.2	2824.4	2864.1	2815.6
22.5°	2753.5	2766.9	2749.2	2740.4	2749.2	2758.0	2758.0	2762.4	2753.5	2744.7
25°	2678.5	2687.3	2691.7	2665.2	2678.5	2665.2	2696.2	2700.5	2682.8	2691.7
27.5°	2612.1	2599.0	2594.5	2576.8	2585.6	2581.3	2585.6	2585.6	2612.1	2576.8
30°	2510.4	2497.3	2501.6	2488.4	2492.8	2488.4	2492.8	2492.8	2510.4	2506.1
32.5°	2413.2	2400.1	2404.4	2391.2	2391.2	2395.6	2386.7	2386.7	2400.1	2391.2
35°	2320.4	2289.5	2293.9	2289.5	2293.9	2276.2	2276.2	2271.9	2280.7	2258.5
37.5°	2187.8	2174.6	2170.1	2165.8	2170.1	2161.3	2170.1	2157.0	2170.1	2152.5
40°	2068.4	2059.6	2064.1	2037.6	2037.6	2041.9	2033.1	2028.8	2033.1	2050.8
42.5°	1949.2	1931.6	1922.7	1913.9	1918.2	1905.0	1900.5	1891.7	1900.5	1882.9
45°	1807.7	1807.7	1803.3	1781.2	1785.7	1785.7	1768.0	1750.3	1754.7	1754.7
47.5°	1679.6	1670.8	1666.3	1644.3	1639.8	1635.4	1617.6	1604.4	1604.4	1591.1
50°	1538.1	1529.2	1516.1	1493.9	1485.1	1458.5	1445.4	1427.7	1410.0	1410.0
52.5°	1405.5	1374.5	1356.8	1321.5	1308.3	1295.0	1259.6	1246.5	1233.1	1220.0
55°	1246.5	1220.0	1184.6	1144.8	1127.1	1104.9	1069.6	1043.1	1025.4	1029.9
57.5°	1091.7	1047.6	1012.2	959.2	937.0	923.7	888.3	853.0	835.3	835.3
60°	901.7	866.3	822.1	773.5	755.8	733.8	689.4	667.4	654.1	640.9
62.5°	720.4	693.9	654.1	592.2	579.1	556.9	526.0	499.5	486.2	486.2
65°	539.2	512.7	477.3	433.2	415.5	397.8	371.3	344.8	331.5	327.1
67.5°	380.1	349.1	318.3	282.9	269.6	260.8	234.3	216.6	207.7	203.2
70°	229.7	212.1	190.1	163.6	150.2	141.4	123.7	110.5	106.0	101.7
72.5°	119.4	106.0	88.4	70.7	61.9	53.0	44.2	35.3	31.0	31.0
75°	44.2	35.3	22.2	13.3	8.8	8.8	8.8	8.8	8.8	8.8
77.5°	8.8	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
80°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
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)