

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: P840267

Luminaire Tested: **LD4C80D010 EU4809050 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: P840267
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: LD4C80D010 EU4809050 4LBCSSQMW
Description: 4 INCH 8000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MW FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

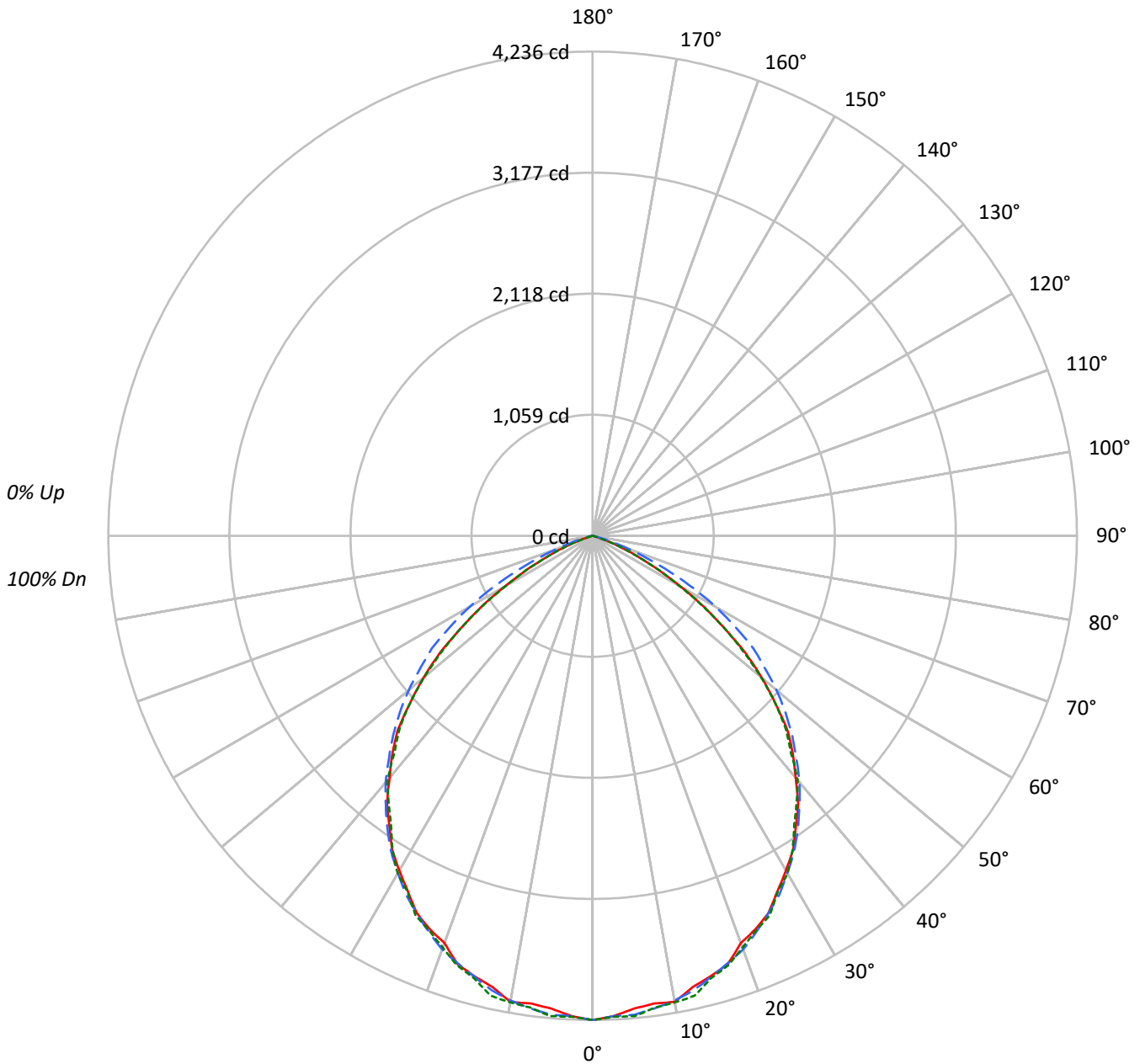
Lumens per Lamp: N/A
Luminaire Lumens: 9049.0 lumens
Efficiency: N/A
Efficacy: 101.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 89.5
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°	408737	408737	408737
5°	402143	407373	408545
10°	405617	404431	406195
15°	398512	399101	400300
20°	389244	395416	393578
25°	387560	387560	390126
30°	376752	379438	380117
35°	365000	368557	362173
40°	347881	354683	351648
45°	329241	336637	325952
50°	289953	315231	288151
55°	234823	288469	235866
60°	171827	239196	168373
65°	104430	170344	101667
70°	40737	91687	39073
75°	4474	24717	4474
80°	3390	3390	3390
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	399.9	4.4
10°-20°	1131.5	12.5
20°-30°	1678.9	18.6
30°-40°	1945.3	21.5
40°-50°	1865.1	20.6
50°-60°	1371.3	15.2
60°-70°	592.3	6.5
70°-80°	63.9	0.7
80°-90°	0.8	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°	3210.2	35.5
0°-40°	5155.5	57.0
0°-60°	8391.9	92.7
0°-90°	9049.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9049.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4236	4236	4236	4236	4236	
5°	4152	4194	4206	4212	4218	396
15°	3989	4013	3995	4001	4007	1124
25°	3640	3634	3640	3646	3664	1667
35°	3099	3117	3129	3123	3075	1938
45°	2413	2419	2467	2431	2389	1834
55°	1396	1540	1715	1534	1402	1256
65°	457	572	746	566	445	470
75°	12	18	66	12	12	37
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°	4236.1	4236.1	4236.1	4236.1	4236.1	4236.1	4236.1	4236.1	4236.1	4236.1	4236.1
2.5°	4205.9	4254.0	4260.2	4230.0	4218.0	4200.0	4242.0	4212.1	4224.1	4212.1	4205.9
5°	4151.9	4205.9	4212.1	4212.1	4200.0	4193.9	4212.1	4205.9	4200.0	4188.0	4205.9
7.5°	4127.8	4157.8	4188.0	4151.9	4169.8	4163.9	4205.9	4188.0	4181.9	4181.9	4169.8
10°	4139.9	4133.7	4157.8	4121.7	4133.7	4121.7	4157.8	4157.8	4145.8	4133.7	4127.8
12.5°	4043.4	4091.5	4091.5	4085.6	4073.6	4055.4	4091.5	4115.8	4079.5	4079.5	4073.6
15°	3989.4	4001.4	4007.3	4007.3	4001.4	4013.4	4031.4	4007.3	4013.4	3983.3	3995.3
17.5°	3929.2	3905.2	3923.1	3911.1	3917.2	3929.2	3953.3	3953.3	3917.2	3911.1	3923.1
20°	3790.8	3863.0	3869.1	3833.0	3838.9	3838.9	3881.1	3845.0	3869.1	3838.9	3850.9
22.5°	3724.5	3772.6	3778.8	3730.6	3760.6	3724.5	3766.7	3712.5	3772.6	3730.6	3748.6
25°	3640.3	3634.4	3652.3	3628.3	3634.4	3634.4	3664.4	3640.3	3658.5	3634.4	3640.3
27.5°	3502.1	3550.2	3544.1	3520.0	3532.0	3526.1	3586.3	3520.0	3556.1	3526.1	3538.2
30°	3381.5	3423.8	3411.7	3387.7	3387.7	3369.5	3435.8	3417.6	3411.7	3411.7	3405.6
32.5°	3261.2	3267.4	3255.3	3261.2	3267.4	3243.3	3297.3	3273.3	3267.4	3273.3	3279.4
35°	3098.7	3098.7	3110.7	3092.8	3116.9	3116.9	3165.0	3134.8	3128.9	3110.7	3128.9
37.5°	2954.4	2936.4	2942.3	2942.3	2954.4	2966.4	2990.4	2978.4	2978.4	2960.5	2972.5
40°	2761.9	2749.9	2767.8	2767.8	2785.9	2785.9	2810.0	2798.0	2815.9	2815.9	2815.9
42.5°	2593.5	2593.5	2581.4	2599.4	2605.5	2599.4	2641.6	2635.5	2641.6	2629.6	2635.5
45°	2412.8	2412.8	2400.8	2394.9	2424.8	2418.9	2467.0	2448.9	2472.9	2460.9	2467.0
47.5°	2166.1	2196.3	2178.1	2196.3	2232.3	2238.5	2268.4	2256.4	2280.5	2262.5	2286.6
50°	1931.6	1931.6	1949.5	1973.6	2009.7	2015.8	2051.9	2076.0	2088.0	2093.9	2100.0
52.5°	1684.9	1678.7	1696.9	1726.9	1757.0	1781.1	1817.2	1853.3	1877.3	1913.4	1895.3
55°	1395.9	1408.0	1426.1	1462.2	1510.3	1540.3	1570.5	1618.6	1660.8	1678.7	1714.8
57.5°	1149.2	1137.2	1149.2	1197.3	1251.6	1275.6	1317.8	1366.0	1426.1	1462.2	1474.2
60°	890.4	896.6	908.6	950.8	992.8	1028.9	1047.1	1125.1	1179.4	1215.5	1239.5
62.5°	656.0	668.0	680.0	716.1	758.1	788.3	818.3	884.5	932.7	968.7	992.8
65°	457.4	463.3	481.4	499.4	541.6	571.5	595.6	649.8	698.0	728.2	746.1
67.5°	282.8	288.7	300.7	325.0	355.0	379.1	403.1	439.2	481.4	511.4	517.5
70°	144.4	150.5	156.4	174.5	198.6	210.6	228.6	258.8	288.7	312.8	325.0
72.5°	48.1	48.1	54.3	66.3	78.3	90.3	96.2	126.4	150.5	162.5	168.4
75°	12.0	12.0	12.0	12.0	12.0	18.2	18.2	36.1	48.1	60.1	66.3
77.5°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	12.0	12.0
80°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
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°	4236.1	4236.1	4236.1	4236.1	4236.1	4236.1	4236.1	4236.1	4236.1	4236.1
2.5°	4236.1	4224.1	4218.0	4224.1	4224.1	4218.0	4236.1	4260.2	4290.1	4212.1
5°	4230.0	4218.0	4230.0	4193.9	4212.1	4200.0	4224.1	4218.0	4242.0	4218.0
7.5°	4212.1	4188.0	4193.9	4176.0	4200.0	4169.8	4188.0	4224.1	4200.0	4163.9
10°	4151.9	4139.9	4181.9	4121.7	4109.7	4133.7	4181.9	4145.8	4133.7	4145.8
12.5°	4091.5	4091.5	4109.7	4061.6	4067.5	4079.5	4103.6	4079.5	4091.5	4121.7
15°	4025.5	4013.4	4043.4	4007.3	4001.4	3989.4	4013.4	4013.4	4025.5	4007.3
17.5°	3947.2	3929.2	3929.2	3917.2	3911.1	3941.3	3953.3	3959.2	3965.3	3941.3
20°	3850.9	3845.0	3863.0	3845.0	3850.9	3857.1	3857.1	3845.0	3899.0	3833.0
22.5°	3748.6	3766.7	3742.7	3730.6	3742.7	3754.7	3754.7	3760.6	3748.6	3736.5
25°	3646.4	3658.5	3664.4	3628.3	3646.4	3628.3	3670.5	3676.4	3652.3	3664.4
27.5°	3556.1	3538.2	3532.0	3508.0	3520.0	3514.1	3520.0	3520.0	3556.1	3508.0
30°	3417.6	3399.7	3405.6	3387.7	3393.6	3387.7	3393.6	3393.6	3417.6	3411.7
32.5°	3285.3	3267.4	3273.3	3255.3	3255.3	3261.2	3249.2	3249.2	3267.4	3255.3
35°	3158.9	3116.9	3122.8	3116.9	3122.8	3098.7	3098.7	3092.8	3104.9	3074.7
37.5°	2978.4	2960.5	2954.4	2948.5	2954.4	2942.3	2954.4	2936.4	2954.4	2930.3
40°	2815.9	2803.9	2810.0	2773.9	2773.9	2779.8	2767.8	2761.9	2767.8	2791.8
42.5°	2653.6	2629.6	2617.5	2605.5	2611.4	2593.5	2587.3	2575.3	2587.3	2563.3
45°	2460.9	2460.9	2455.0	2424.8	2430.9	2430.9	2406.9	2382.8	2388.7	2388.7
47.5°	2286.6	2274.6	2268.4	2238.5	2232.3	2226.4	2202.1	2184.2	2184.2	2166.1
50°	2093.9	2081.9	2063.9	2033.7	2021.7	1985.6	1967.7	1943.6	1919.6	1919.6
52.5°	1913.4	1871.2	1847.2	1799.0	1781.1	1762.9	1714.8	1696.9	1678.7	1660.8
55°	1696.9	1660.8	1612.7	1558.4	1534.4	1504.2	1456.1	1420.0	1395.9	1402.1
57.5°	1486.3	1426.1	1378.0	1305.8	1275.6	1257.5	1209.3	1161.2	1137.2	1137.2
60°	1227.5	1179.4	1119.2	1053.0	1028.9	998.9	938.6	908.6	890.4	872.5
62.5°	980.8	944.7	890.4	806.2	788.3	758.1	716.1	680.0	661.9	661.9
65°	734.0	698.0	649.8	589.7	565.6	541.6	505.5	469.4	451.2	445.3
67.5°	517.5	475.3	433.3	385.2	367.0	355.0	318.9	294.8	282.8	276.7
70°	312.8	288.7	258.8	222.7	204.5	192.5	168.4	150.5	144.4	138.5
72.5°	162.5	144.4	120.3	96.2	84.2	72.2	60.1	48.1	42.2	42.2
75°	60.1	48.1	30.2	18.2	12.0	12.0	12.0	12.0	12.0	12.0
77.5°	12.0	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
80°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
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)