

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: P840261

Luminaire Tested: **LD4C80D010 EU4809030 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: P840261  
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 EU4809030 4LBCSSQMW  
Description: 4 INCH 8000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS  
AND 4LBCSSQ TRIM WITH MW FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

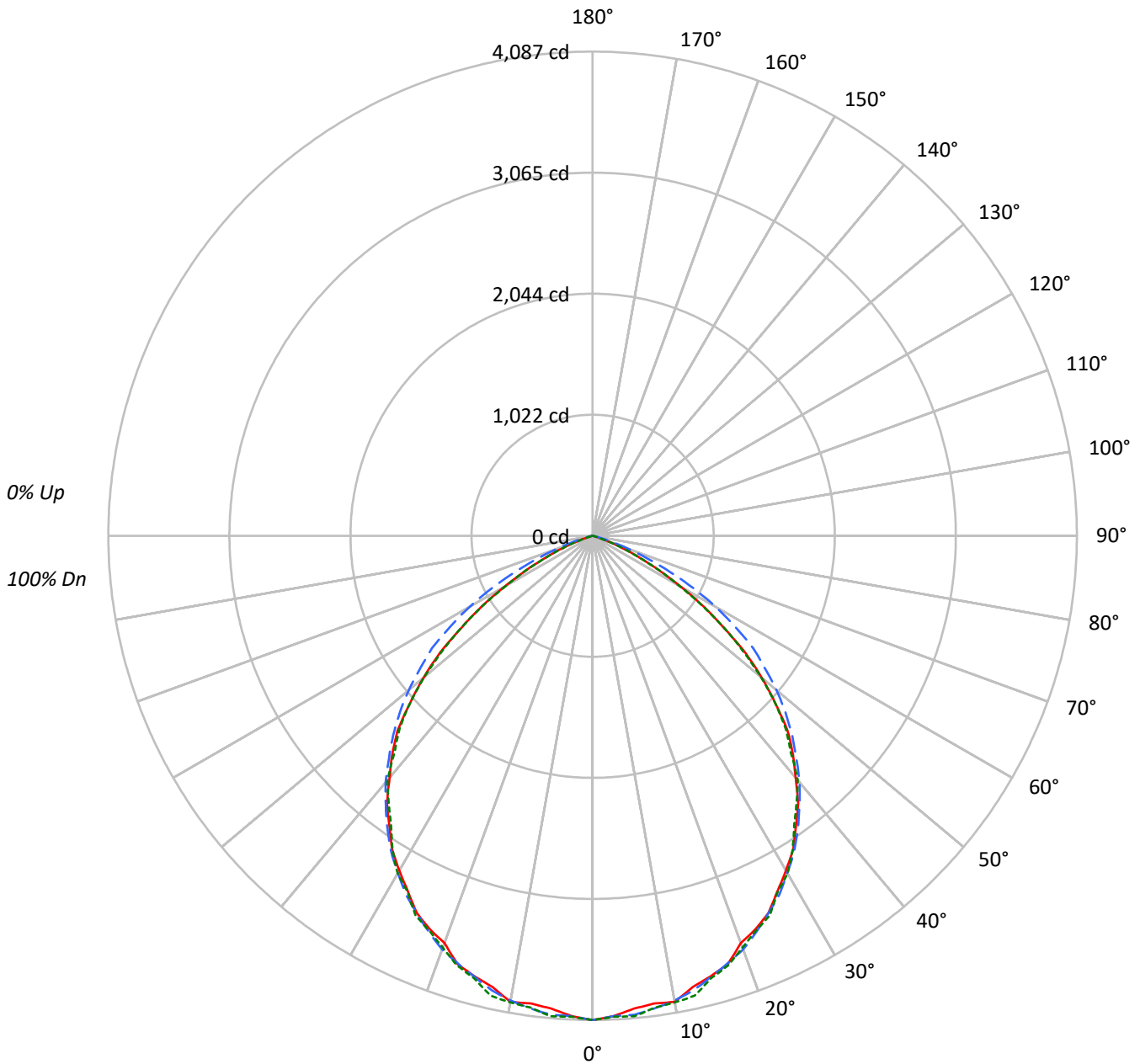
Lumens per Lamp: N/A  
Luminaire Lumens: 8731.0 lumens  
Efficiency: N/A  
Efficacy: 97.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 89.5  
Input Voltage (V):  
Input Current (A<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

TEST NUMBER: P840261

CATALOG NUMBER: LD4C80D010 EU4809030 4LBCSSQMW

### Luminous Intensity Polar Plot





TEST NUMBER: P840261

CATALOG NUMBER: LD4C80D010 EU4809030 4LBCSSQMW

**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°	394379	394379	394379
5°	388011	393057	394181
10°	391361	390224	391919
15°	384507	385076	386235
20°	375567	381523	379746
25°	373943	373943	376413
30°	363516	366101	366758
35°	352172	355612	349439
40°	335651	342213	339291
45°	317669	324806	314504
50°	279760	304153	278019
55°	226580	278342	227572
60°	165787	230801	162449
65°	100754	164362	98106
70°	39299	88471	37691
75°	4325	23859	4325
80°	3278	3278	3278
85°	0	0	0



TEST NUMBER: P840261

CATALOG NUMBER: LD4C80D010 EU4809030 4LBCSSQMW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	385.8	4.4
10°-20°	1091.7	12.5
20°-30°	1619.9	18.6
30°-40°	1876.9	21.5
40°-50°	1799.6	20.6
50°-60°	1323.1	15.2
60°-70°	571.5	6.5
70°-80°	61.7	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°	3097.4	35.5
0°-40°	4974.3	57.0
0°-60°	8097.0	92.7
0°-90°	8731.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8731.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4087	4087	4087	4087	4087	
5°	4006	4046	4058	4064	4070	382
15°	3849	3872	3855	3861	3866	1085
25°	3512	3507	3512	3518	3536	1608
35°	2990	3007	3019	3013	2967	1870
45°	2328	2334	2380	2346	2305	1770
55°	1347	1486	1655	1480	1353	1212
65°	441	551	720	546	430	454
75°	12	18	64	12	12	36
85°	0	0	0	0	0	1
90°	0	0	0	0	0	



TEST NUMBER: P840261

CATALOG NUMBER: LD4C80D010 EU4809030 4LBCSSQMW

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	4087.3	4087.3	4087.3	4087.3	4087.3	4087.3	4087.3	4087.3	4087.3	4087.3	4087.3
2.5°	4058.1	4104.5	4110.5	4081.3	4069.7	4052.4	4092.9	4064.0	4075.6	4064.0	4058.1
5°	4006.0	4058.1	4064.0	4064.0	4052.4	4046.5	4064.0	4058.1	4052.4	4040.8	4058.1
7.5°	3982.8	4011.7	4040.8	4006.0	4023.3	4017.6	4058.1	4040.8	4034.9	4034.9	4023.3
10°	3994.4	3988.5	4011.7	3976.9	3988.5	3976.9	4011.7	4011.7	4000.1	3988.5	3982.8
12.5°	3901.3	3947.7	3947.7	3942.0	3930.4	3912.9	3947.7	3971.2	3936.1	3936.1	3930.4
15°	3849.2	3860.8	3866.5	3866.5	3860.8	3872.4	3889.7	3866.5	3872.4	3843.3	3854.9
17.5°	3791.2	3767.9	3785.2	3773.6	3779.6	3791.2	3814.4	3814.4	3779.6	3773.6	3785.2
20°	3657.6	3727.2	3733.1	3698.3	3704.0	3704.0	3744.7	3709.9	3733.1	3704.0	3715.6
22.5°	3593.6	3640.0	3646.0	3599.5	3628.4	3593.6	3634.4	3582.0	3640.0	3599.5	3616.8
25°	3512.4	3506.7	3524.0	3500.8	3506.7	3506.7	3535.6	3512.4	3529.9	3506.7	3512.4
27.5°	3379.0	3425.4	3419.5	3396.3	3407.9	3402.2	3460.2	3396.3	3431.1	3402.2	3413.8
30°	3262.7	3303.4	3291.8	3268.6	3268.6	3251.1	3315.0	3297.5	3291.8	3291.8	3285.9
32.5°	3146.6	3152.5	3140.9	3146.6	3152.5	3129.3	3181.5	3158.2	3152.5	3158.2	3164.2
35°	2989.8	2989.8	3001.4	2984.1	3007.3	3007.3	3053.8	3024.6	3019.0	3001.4	3019.0
37.5°	2850.5	2833.2	2838.9	2838.9	2850.5	2862.1	2885.4	2873.8	2873.8	2856.5	2868.1
40°	2664.8	2653.2	2670.5	2670.5	2688.0	2688.0	2711.3	2699.6	2716.9	2716.9	2716.9
42.5°	2502.3	2502.3	2490.7	2508.0	2513.9	2508.0	2548.8	2542.8	2548.8	2537.1	2542.8
45°	2328.0	2328.0	2316.4	2310.7	2339.6	2333.9	2380.3	2362.8	2386.0	2374.4	2380.3
47.5°	2089.9	2119.1	2101.5	2119.1	2153.9	2159.8	2188.7	2177.1	2200.3	2183.0	2206.2
50°	1863.7	1863.7	1881.0	1904.2	1939.0	1945.0	1979.8	2003.0	2014.6	2020.3	2026.2
52.5°	1625.7	1619.7	1637.3	1666.2	1695.3	1718.5	1753.3	1788.2	1811.4	1846.2	1828.7
55°	1346.9	1358.5	1376.0	1410.8	1457.2	1486.1	1515.3	1561.7	1602.4	1619.7	1654.6
57.5°	1108.8	1097.2	1108.8	1155.2	1207.6	1230.8	1271.5	1318.0	1376.0	1410.8	1422.4
60°	859.1	865.1	876.7	917.4	957.9	992.7	1010.3	1085.6	1137.9	1172.8	1196.0
62.5°	632.9	644.5	656.1	691.0	731.5	760.6	789.5	853.5	899.9	934.7	957.9
65°	441.3	447.0	464.5	481.8	522.5	551.4	574.7	627.0	673.4	702.6	719.9
67.5°	272.9	278.6	290.2	313.6	342.5	365.7	388.9	423.8	464.5	493.4	499.3
70°	139.3	145.2	150.9	168.4	191.6	203.2	220.5	249.7	278.6	301.8	313.6
72.5°	46.4	46.4	52.3	64.0	75.6	87.2	92.9	122.0	145.2	156.8	162.5
75°	11.6	11.6	11.6	11.6	11.6	17.5	17.5	34.8	46.4	58.0	64.0
77.5°	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	11.6	11.6
80°	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
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



TEST NUMBER: P840261

CATALOG NUMBER: LD4C80D010 EU4809030 4LBCSSQMW

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	4087.3	4087.3	4087.3	4087.3	4087.3	4087.3	4087.3	4087.3	4087.3	4087.3
2.5°	4087.3	4075.6	4069.7	4075.6	4075.6	4069.7	4087.3	4110.5	4139.4	4064.0
5°	4081.3	4069.7	4081.3	4046.5	4064.0	4052.4	4075.6	4069.7	4092.9	4069.7
7.5°	4064.0	4040.8	4046.5	4029.2	4052.4	4023.3	4040.8	4075.6	4052.4	4017.6
10°	4006.0	3994.4	4034.9	3976.9	3965.3	3988.5	4034.9	4000.1	3988.5	4000.1
12.5°	3947.7	3947.7	3965.3	3918.8	3924.5	3936.1	3959.3	3936.1	3947.7	3976.9
15°	3884.0	3872.4	3901.3	3866.5	3860.8	3849.2	3872.4	3872.4	3884.0	3866.5
17.5°	3808.5	3791.2	3791.2	3779.6	3773.6	3802.8	3814.4	3820.1	3826.0	3802.8
20°	3715.6	3709.9	3727.2	3709.9	3715.6	3721.5	3721.5	3709.9	3762.0	3698.3
22.5°	3616.8	3634.4	3611.1	3599.5	3611.1	3622.7	3622.7	3628.4	3616.8	3605.2
25°	3518.3	3529.9	3535.6	3500.8	3518.3	3500.8	3541.5	3547.2	3524.0	3535.6
27.5°	3431.1	3413.8	3407.9	3384.7	3396.3	3390.6	3396.3	3396.3	3431.1	3384.7
30°	3297.5	3280.2	3285.9	3268.6	3274.3	3268.6	3274.3	3274.3	3297.5	3291.8
32.5°	3169.8	3152.5	3158.2	3140.9	3140.9	3146.6	3135.0	3135.0	3152.5	3140.9
35°	3047.9	3007.3	3013.0	3007.3	3013.0	2989.8	2989.8	2984.1	2995.7	2966.6
37.5°	2873.8	2856.5	2850.5	2844.8	2850.5	2838.9	2850.5	2833.2	2850.5	2827.3
40°	2716.9	2705.3	2711.3	2676.4	2676.4	2682.1	2670.5	2664.8	2670.5	2693.7
42.5°	2560.4	2537.1	2525.5	2513.9	2519.6	2502.3	2496.4	2484.8	2496.4	2473.2
45°	2374.4	2374.4	2368.7	2339.6	2345.5	2345.5	2322.3	2299.1	2304.8	2304.8
47.5°	2206.2	2194.6	2188.7	2159.8	2153.9	2148.2	2124.8	2107.5	2107.5	2089.9
50°	2020.3	2008.7	1991.4	1962.3	1950.7	1915.8	1898.5	1875.3	1852.1	1852.1
52.5°	1846.2	1805.5	1782.2	1735.8	1718.5	1701.0	1654.6	1637.3	1619.7	1602.4
55°	1637.3	1602.4	1556.0	1503.7	1480.5	1451.3	1404.9	1370.1	1346.9	1352.8
57.5°	1434.0	1376.0	1329.6	1259.9	1230.8	1213.3	1166.8	1120.4	1097.2	1097.2
60°	1184.4	1137.9	1079.9	1016.0	992.7	963.8	905.6	876.7	859.1	841.8
62.5°	946.3	911.5	859.1	777.9	760.6	731.5	691.0	656.1	638.6	638.6
65°	708.3	673.4	627.0	569.0	545.8	522.5	487.7	452.9	435.4	429.7
67.5°	499.3	458.6	418.1	371.7	354.1	342.5	307.7	284.5	272.9	267.0
70°	301.8	278.6	249.7	214.8	197.3	185.7	162.5	145.2	139.3	133.6
72.5°	156.8	139.3	116.1	92.9	81.2	69.6	58.0	46.4	40.7	40.7
75°	58.0	46.4	29.1	17.5	11.6	11.6	11.6	11.6	11.6	11.6
77.5°	11.6	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
80°	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
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)