

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: P840260

Luminaire Tested: **LD4C80D010 EU4809030 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: P840260  
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 4LBCSSQMMS  
Description: 4 INCH 8000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS  
AND 4LBCSSQ TRIM WITH MMS FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

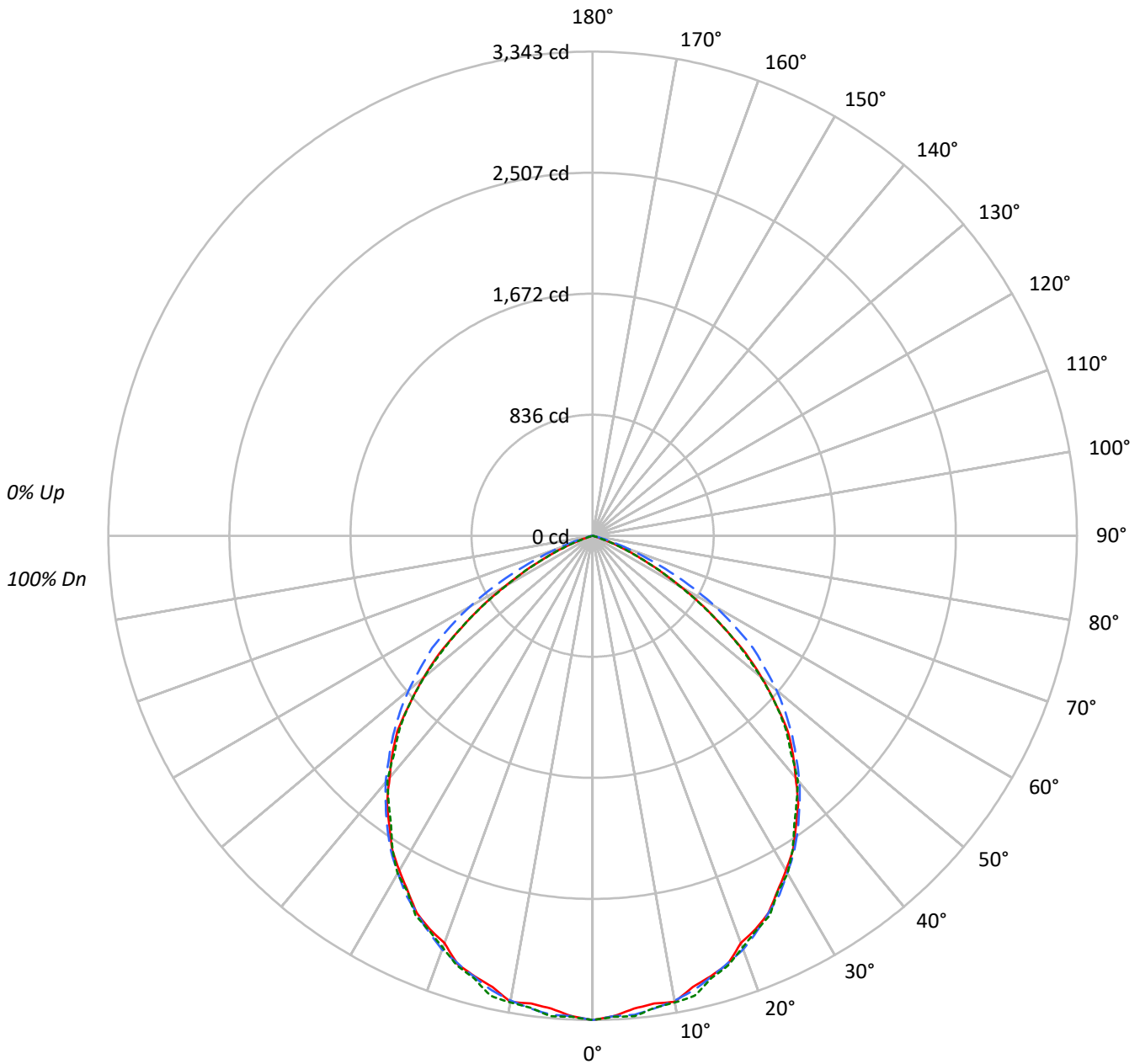
Lumens per Lamp: N/A  
Luminaire Lumens: 7142.0 lumens  
Efficiency: N/A  
Efficacy: 79.8 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 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

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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°	322601	322601	322601
5°	317392	321528	322448
10°	320131	319201	320592
15°	314532	314992	315940
20°	307212	312090	310632
25°	305881	305881	307904
30°	297358	299474	300009
35°	288082	290885	285844
40°	274562	279940	277547
45°	259853	265693	257260
50°	228843	248807	227417
55°	185332	227673	186156
60°	135625	188790	132885
65°	82421	134430	80252
70°	32133	72362	30835
75°	3542	19498	3542
80°	2667	2667	2667
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	315.6	4.4
10°-20°	893.0	12.5
20°-30°	1325.1	18.6
30°-40°	1535.3	21.5
40°-50°	1472.1	20.6
50°-60°	1082.3	15.2
60°-70°	467.5	6.5
70°-80°	50.5	0.7
80°-90°	0.7	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°	2533.7	35.5
0°-40°	4069.0	57.0
0°-60°	6623.4	92.7
0°-90°	7142.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7142.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3343	3343	3343	3343	3343	
5°	3277	3310	3320	3324	3329	313
15°	3149	3168	3153	3158	3163	887
25°	2873	2868	2873	2878	2892	1315
35°	2446	2460	2470	2465	2427	1529
45°	1904	1909	1947	1919	1885	1448
55°	1102	1216	1353	1211	1107	991
65°	361	451	589	446	352	371
75°	10	14	52	10	10	29
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°	3343.4	3343.4	3343.4	3343.4	3343.4	3343.4	3343.4	3343.4	3343.4	3343.4	3343.4
2.5°	3319.6	3357.5	3362.4	3338.6	3329.1	3314.9	3348.0	3324.4	3333.9	3324.4	3319.6
5°	3276.9	3319.6	3324.4	3324.4	3314.9	3310.1	3324.4	3319.6	3314.9	3305.4	3319.6
7.5°	3257.9	3281.6	3305.4	3276.9	3291.1	3286.4	3319.6	3305.4	3300.6	3300.6	3291.1
10°	3267.4	3262.6	3281.6	3253.1	3262.6	3253.1	3281.6	3281.6	3272.1	3262.6	3257.9
12.5°	3191.3	3229.3	3229.3	3224.6	3215.1	3200.8	3229.3	3248.4	3219.8	3219.8	3215.1
15°	3148.7	3158.2	3162.8	3162.8	3158.2	3167.6	3181.8	3162.8	3167.6	3143.8	3153.3
17.5°	3101.2	3082.2	3096.3	3086.9	3091.7	3101.2	3120.2	3120.2	3091.7	3086.9	3096.3
20°	2991.9	3048.9	3053.7	3025.2	3029.9	3029.9	3063.2	3034.7	3053.7	3029.9	3039.4
22.5°	2939.6	2977.6	2982.4	2944.4	2968.1	2939.6	2972.9	2930.1	2977.6	2944.4	2958.6
25°	2873.1	2868.5	2882.6	2863.6	2868.5	2868.5	2892.1	2873.1	2887.5	2868.5	2873.1
27.5°	2764.0	2802.0	2797.2	2778.2	2787.7	2783.0	2830.5	2778.2	2806.7	2783.0	2792.5
30°	2668.9	2702.2	2692.7	2673.7	2673.7	2659.4	2711.7	2697.4	2692.7	2692.7	2687.9
32.5°	2574.0	2578.8	2569.3	2574.0	2578.8	2559.8	2602.4	2583.5	2578.8	2583.5	2588.3
35°	2445.7	2445.7	2455.2	2441.0	2460.0	2460.0	2498.0	2474.2	2469.5	2455.2	2469.5
37.5°	2331.8	2317.6	2322.3	2322.3	2331.8	2341.2	2360.2	2350.7	2350.7	2336.6	2346.1
40°	2179.8	2170.3	2184.5	2184.5	2198.8	2198.8	2217.8	2208.3	2222.5	2222.5	2222.5
42.5°	2046.9	2046.9	2037.4	2051.6	2056.4	2051.6	2084.9	2080.1	2084.9	2075.4	2080.1
45°	1904.3	1904.3	1894.8	1890.2	1913.8	1909.2	1947.1	1932.8	1951.8	1942.3	1947.1
47.5°	1709.6	1733.4	1719.1	1733.4	1761.9	1766.7	1790.4	1780.9	1799.9	1785.7	1804.7
50°	1524.5	1524.5	1538.7	1557.7	1586.2	1591.0	1619.5	1638.5	1648.0	1652.6	1657.5
52.5°	1329.8	1325.0	1339.3	1362.9	1386.8	1405.8	1434.2	1462.7	1481.7	1510.2	1495.9
55°	1101.7	1111.2	1125.6	1154.1	1192.0	1215.7	1239.5	1277.5	1310.8	1325.0	1353.4
57.5°	907.0	897.5	907.0	945.0	987.8	1006.8	1040.1	1078.1	1125.6	1154.1	1163.5
60°	702.8	707.6	717.1	750.4	783.6	812.1	826.4	888.0	930.8	959.3	978.3
62.5°	517.7	527.2	536.7	565.2	598.3	622.2	645.8	698.1	736.1	764.6	783.6
65°	361.0	365.6	380.0	394.1	427.4	451.1	470.1	512.9	550.9	574.7	588.8
67.5°	223.2	227.9	237.4	256.5	280.2	299.2	318.2	346.6	380.0	403.6	408.5
70°	113.9	118.8	123.4	137.8	156.8	166.2	180.4	204.2	227.9	246.9	256.5
72.5°	38.0	38.0	42.8	52.3	61.8	71.3	76.0	99.8	118.8	128.3	132.9
75°	9.5	9.5	9.5	9.5	9.5	14.3	14.3	28.5	38.0	47.5	52.3
77.5°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	9.5	9.5
80°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
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°	3343.4	3343.4	3343.4	3343.4	3343.4	3343.4	3343.4	3343.4	3343.4	3343.4
2.5°	3343.4	3333.9	3329.1	3333.9	3333.9	3329.1	3343.4	3362.4	3386.0	3324.4
5°	3338.6	3329.1	3338.6	3310.1	3324.4	3314.9	3333.9	3329.1	3348.0	3329.1
7.5°	3324.4	3305.4	3310.1	3295.9	3314.9	3291.1	3305.4	3333.9	3314.9	3286.4
10°	3276.9	3267.4	3300.6	3253.1	3243.6	3262.6	3300.6	3272.1	3262.6	3272.1
12.5°	3229.3	3229.3	3243.6	3205.6	3210.3	3219.8	3238.8	3219.8	3229.3	3253.1
15°	3177.1	3167.6	3191.3	3162.8	3158.2	3148.7	3167.6	3167.6	3177.1	3162.8
17.5°	3115.3	3101.2	3101.2	3091.7	3086.9	3110.7	3120.2	3124.8	3129.7	3110.7
20°	3039.4	3034.7	3048.9	3034.7	3039.4	3044.2	3044.2	3034.7	3077.4	3025.2
22.5°	2958.6	2972.9	2953.9	2944.4	2953.9	2963.4	2963.4	2968.1	2958.6	2949.1
25°	2878.0	2887.5	2892.1	2863.6	2878.0	2863.6	2897.0	2901.6	2882.6	2892.1
27.5°	2806.7	2792.5	2787.7	2768.7	2778.2	2773.5	2778.2	2778.2	2806.7	2768.7
30°	2697.4	2683.2	2687.9	2673.7	2678.4	2673.7	2678.4	2678.4	2697.4	2692.7
32.5°	2592.9	2578.8	2583.5	2569.3	2569.3	2574.0	2564.5	2564.5	2578.8	2569.3
35°	2493.2	2460.0	2464.7	2460.0	2464.7	2445.7	2445.7	2441.0	2450.5	2426.7
37.5°	2350.7	2336.6	2331.8	2327.1	2331.8	2322.3	2331.8	2317.6	2331.8	2312.8
40°	2222.5	2213.0	2217.8	2189.3	2189.3	2194.0	2184.5	2179.8	2184.5	2203.5
42.5°	2094.4	2075.4	2065.9	2056.4	2061.1	2046.9	2042.1	2032.6	2042.1	2023.1
45°	1942.3	1942.3	1937.6	1913.8	1918.6	1918.6	1899.7	1880.7	1885.3	1885.3
47.5°	1804.7	1795.2	1790.4	1766.7	1761.9	1757.2	1738.1	1723.9	1723.9	1709.6
50°	1652.6	1643.1	1629.0	1605.1	1595.6	1567.2	1553.0	1534.0	1515.0	1515.0
52.5°	1510.2	1476.9	1457.9	1419.9	1405.8	1391.4	1353.4	1339.3	1325.0	1310.8
55°	1339.3	1310.8	1272.8	1230.0	1211.0	1187.2	1149.2	1120.7	1101.7	1106.6
57.5°	1173.0	1125.6	1087.6	1030.6	1006.8	992.5	954.5	916.5	897.5	897.5
60°	968.8	930.8	883.4	831.1	812.1	788.4	740.8	717.1	702.8	688.6
62.5°	774.1	745.6	702.8	636.3	622.2	598.3	565.2	536.7	522.4	522.4
65°	579.4	550.9	512.9	465.4	446.4	427.4	399.0	370.5	356.1	351.5
67.5°	408.5	375.1	342.0	304.0	289.7	280.2	251.7	232.7	223.2	218.4
70°	246.9	227.9	204.2	175.7	161.4	151.9	132.9	118.8	113.9	109.3
72.5°	128.3	113.9	94.9	76.0	66.5	57.0	47.5	38.0	33.3	33.3
75°	47.5	38.0	23.8	14.3	9.5	9.5	9.5	9.5	9.5	9.5
77.5°	9.5	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
80°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
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)