

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: P840150

Luminaire Tested: **LD4C25D010 EU4259030 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: P840150  
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: LD4C25D010 EU4259030 4LBCSSQMMS  
Description: 4 INCH 2500 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**

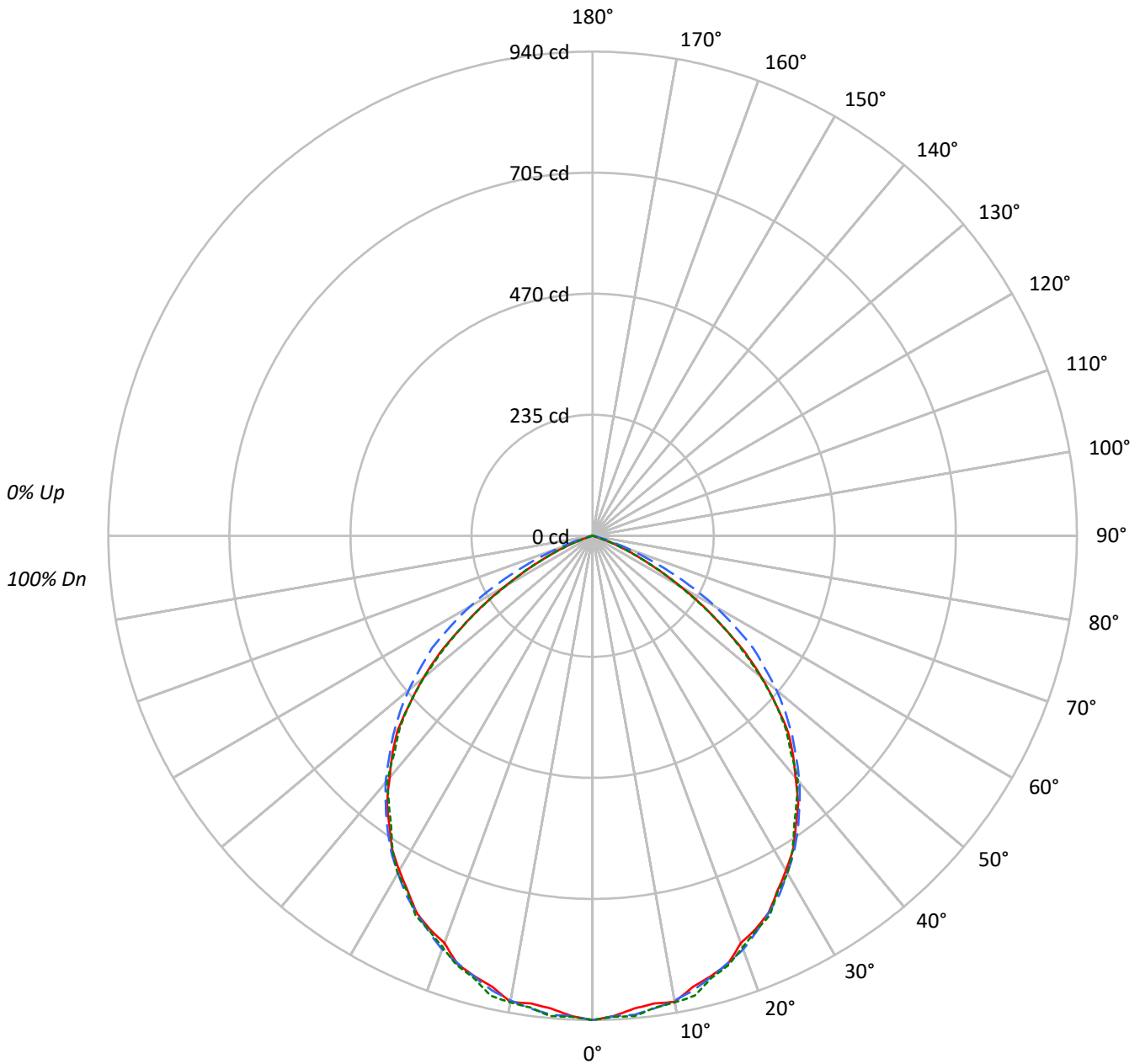
Lumens per Lamp: N/A  
Luminaire Lumens: 2008.0 lumens  
Efficiency: N/A  
Efficacy: 63.7 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 31.5  
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	100	100
1	111	108	104	101	109	105	102	100	101	99	96	97	95	94	94	92	91	89	89	89	89
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77	77	77	77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	67	67	67	67
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61	59	59	59	59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52	52	52	52
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46	46	46	46
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41	41	41	41
8	65	53	45	40	64	52	45	39	51	44	39	50	44	39	49	43	39	37	37	37	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	33	33	33	33
10	57	45	38	33	56	44	37	33	44	37	32	43	37	32	42	36	32	31	31	31	31

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	90700	90700	90700
5°	89235	90397	90659
10°	90012	89747	90139
15°	88435	88565	88825
20°	86376	87741	87341
25°	86001	86001	86566
30°	83606	84197	84353
35°	80993	81782	80369
40°	77199	78711	78031
45°	73058	74696	72335
50°	64337	69951	63947
55°	52116	64009	52334
60°	38132	53088	37360
65°	23174	37808	22557
70°	9028	20340	8661
75°	1007	5480	1007
80°	778	778	778
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	88.7	4.4
10°-20°	251.1	12.5
20°-30°	372.5	18.6
30°-40°	431.7	21.5
40°-50°	413.9	20.6
50°-60°	304.3	15.2
60°-70°	131.4	6.5
70°-80°	14.2	0.7
80°-90°	0.2	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°	712.3	35.5
0°-40°	1144.0	57.0
0°-60°	1862.2	92.7
0°-90°	2008.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2008.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	940	940	940	940	940	
5°	921	931	933	935	936	88
15°	885	891	887	888	889	250
25°	808	806	808	809	813	370
35°	688	692	694	693	682	430
45°	535	537	547	539	530	407
55°	310	342	380	340	311	279
65°	102	127	166	126	99	104
75°	3	4	15	3	3	8
85°	0	0	0	0	0	0
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°	940.0	940.0	940.0	940.0	940.0	940.0	940.0	940.0	940.0	940.0	940.0
2.5°	933.3	944.0	945.3	938.6	936.0	932.0	941.3	934.7	937.3	934.7	933.3
5°	921.3	933.3	934.7	934.7	932.0	930.6	934.7	933.3	932.0	929.3	933.3
7.5°	916.0	922.6	929.3	921.3	925.3	924.0	933.3	929.3	928.0	928.0	925.3
10°	918.7	917.3	922.6	914.6	917.3	914.6	922.6	922.6	920.0	917.3	916.0
12.5°	897.2	907.9	907.9	906.6	903.9	899.9	907.9	913.3	905.3	905.3	903.9
15°	885.3	887.9	889.2	889.2	887.9	890.6	894.6	889.2	890.6	883.9	886.6
17.5°	871.9	866.6	870.5	867.9	869.2	871.9	877.2	877.2	869.2	867.9	870.5
20°	841.2	857.2	858.6	850.6	851.9	851.9	861.2	853.2	858.6	851.9	854.5
22.5°	826.5	837.2	838.5	827.8	834.5	826.5	835.8	823.8	837.2	827.8	831.8
25°	807.8	806.5	810.5	805.1	806.5	806.5	813.1	807.8	811.8	806.5	807.8
27.5°	777.1	787.8	786.4	781.1	783.8	782.5	795.8	781.1	789.1	782.5	785.1
30°	750.4	759.7	757.1	751.7	751.7	747.7	762.4	758.4	757.1	757.1	755.7
32.5°	723.7	725.0	722.4	723.7	725.0	719.7	731.7	726.3	725.0	726.3	727.7
35°	687.6	687.6	690.3	686.3	691.6	691.6	702.3	695.6	694.3	690.3	694.3
37.5°	655.6	651.6	652.9	652.9	655.6	658.3	663.6	660.9	660.9	656.9	659.6
40°	612.9	610.2	614.2	614.2	618.2	618.2	623.5	620.9	624.9	624.9	624.9
42.5°	575.5	575.5	572.8	576.8	578.2	576.8	586.2	584.8	586.2	583.5	584.8
45°	535.4	535.4	532.7	531.4	538.1	536.8	547.4	543.4	548.8	546.1	547.4
47.5°	480.7	487.4	483.3	487.4	495.4	496.7	503.4	500.7	506.0	502.1	507.4
50°	428.6	428.6	432.6	437.9	446.0	447.3	455.3	460.7	463.3	464.6	466.0
52.5°	373.9	372.5	376.5	383.2	389.9	395.2	403.2	411.2	416.6	424.6	420.6
55°	309.8	312.4	316.5	324.5	335.1	341.8	348.5	359.2	368.5	372.5	380.5
57.5°	255.0	252.3	255.0	265.7	277.7	283.1	292.4	303.1	316.5	324.5	327.1
60°	197.6	199.0	201.6	211.0	220.3	228.3	232.3	249.7	261.7	269.7	275.1
62.5°	145.6	148.2	150.9	158.9	168.2	174.9	181.6	196.3	207.0	215.0	220.3
65°	101.5	102.8	106.8	110.8	120.2	126.8	132.2	144.2	154.9	161.6	165.6
67.5°	62.8	64.1	66.7	72.1	78.8	84.1	89.5	97.5	106.8	113.5	114.8
70°	32.0	33.4	34.7	38.7	44.1	46.7	50.7	57.4	64.1	69.4	72.1
72.5°	10.7	10.7	12.0	14.7	17.4	20.0	21.4	28.1	33.4	36.1	37.4
75°	2.7	2.7	2.7	2.7	2.7	4.0	4.0	8.0	10.7	13.3	14.7
77.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.7	2.7
80°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
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°	940.0	940.0	940.0	940.0	940.0	940.0	940.0	940.0	940.0	940.0
2.5°	940.0	937.3	936.0	937.3	937.3	936.0	940.0	945.3	952.0	934.7
5°	938.6	936.0	938.6	930.6	934.7	932.0	937.3	936.0	941.3	936.0
7.5°	934.7	929.3	930.6	926.7	932.0	925.3	929.3	937.3	932.0	924.0
10°	921.3	918.7	928.0	914.6	912.0	917.3	928.0	920.0	917.3	920.0
12.5°	907.9	907.9	912.0	901.3	902.6	905.3	910.6	905.3	907.9	914.6
15°	893.3	890.6	897.2	889.2	887.9	885.3	890.6	890.6	893.3	889.2
17.5°	875.9	871.9	871.9	869.2	867.9	874.6	877.2	878.6	879.9	874.6
20°	854.5	853.2	857.2	853.2	854.5	855.9	855.9	853.2	865.2	850.6
22.5°	831.8	835.8	830.5	827.8	830.5	833.2	833.2	834.5	831.8	829.1
25°	809.2	811.8	813.1	805.1	809.2	805.1	814.5	815.8	810.5	813.1
27.5°	789.1	785.1	783.8	778.4	781.1	779.8	781.1	781.1	789.1	778.4
30°	758.4	754.4	755.7	751.7	753.0	751.7	753.0	753.0	758.4	757.1
32.5°	729.0	725.0	726.3	722.4	722.4	723.7	721.0	721.0	725.0	722.4
35°	701.0	691.6	693.0	691.6	693.0	687.6	687.6	686.3	689.0	682.3
37.5°	660.9	656.9	655.6	654.3	655.6	652.9	655.6	651.6	655.6	650.2
40°	624.9	622.2	623.5	615.5	615.5	616.8	614.2	612.9	614.2	619.5
42.5°	588.8	583.5	580.8	578.2	579.5	575.5	574.1	571.5	574.1	568.8
45°	546.1	546.1	544.8	538.1	539.4	539.4	534.1	528.8	530.1	530.1
47.5°	507.4	504.7	503.4	496.7	495.4	494.1	488.7	484.7	484.7	480.7
50°	464.6	462.0	458.0	451.3	448.6	440.6	436.6	431.3	426.0	426.0
52.5°	424.6	415.2	409.9	399.2	395.2	391.2	380.5	376.5	372.5	368.5
55°	376.5	368.5	357.9	345.8	340.5	333.8	323.1	315.1	309.8	311.1
57.5°	329.8	316.5	305.8	289.8	283.1	279.0	268.4	257.7	252.3	252.3
60°	272.4	261.7	248.4	233.7	228.3	221.7	208.3	201.6	197.6	193.6
62.5°	217.6	209.6	197.6	178.9	174.9	168.2	158.9	150.9	146.9	146.9
65°	162.9	154.9	144.2	130.9	125.5	120.2	112.2	104.2	100.1	98.8
67.5°	114.8	105.5	96.2	85.5	81.4	78.8	70.8	65.4	62.8	61.4
70°	69.4	64.1	57.4	49.4	45.4	42.7	37.4	33.4	32.0	30.7
72.5°	36.1	32.0	26.7	21.4	18.7	16.0	13.3	10.7	9.4	9.4
75°	13.3	10.7	6.7	4.0	2.7	2.7	2.7	2.7	2.7	2.7
77.5°	2.7	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
80°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
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)