

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: P840154

Luminaire Tested: **LD4C25D010 EU4259040 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: P840154
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 EU4259040 4LBCSSQMMS
Description: 4 INCH 2500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MMS FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

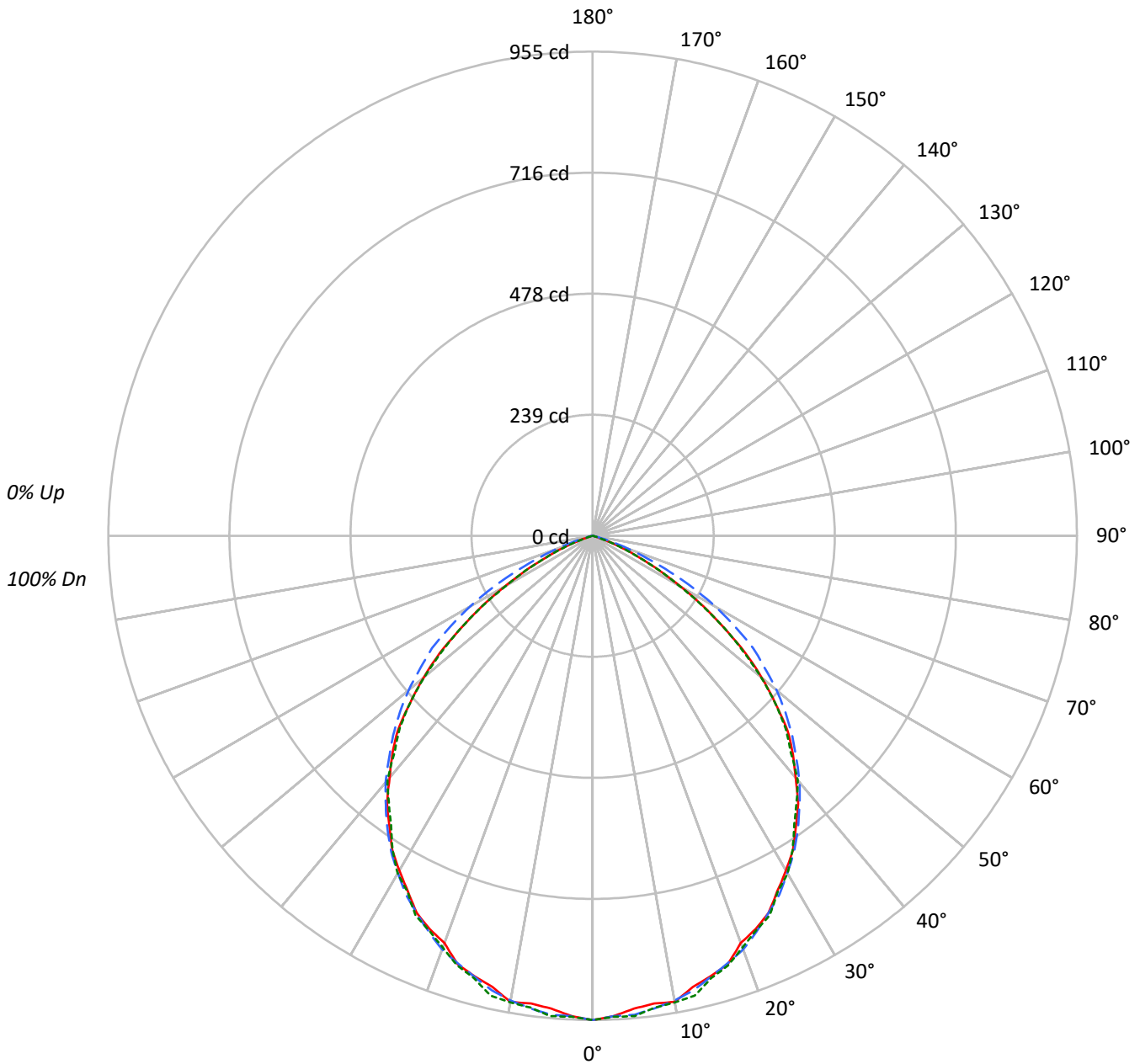
Lumens per Lamp: N/A
Luminaire Lumens: 2040.0 lumens
Efficiency: N/A
Efficacy: 64.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 31.5
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°	92147	92147	92147
5°	90659	91840	92102
10°	91442	91178	91570
15°	89843	89973	90243
20°	87751	89148	88727
25°	87375	87375	87950
30°	84932	85545	85690
35°	82289	83090	81641
40°	78421	79958	79278
45°	74218	75897	73482
50°	65373	71062	64953
55°	52940	65035	53175
60°	38731	53918	37959
65°	23539	38402	22923
70°	9169	20679	8802
75°	1007	5555	1007
80°	778	778	778
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.1	4.4
10°-20°	255.1	12.5
20°-30°	378.5	18.6
30°-40°	438.5	21.5
40°-50°	420.5	20.6
50°-60°	309.2	15.2
60°-70°	133.5	6.5
70°-80°	14.4	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°	723.7	35.5
0°-40°	1162.2	57.0
0°-60°	1891.9	92.7
0°-90°	2040.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2040.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	955	955	955	955	955	
5°	936	946	948	950	951	89
15°	899	905	901	902	903	253
25°	821	819	821	822	826	376
35°	699	703	705	704	693	437
45°	544	545	556	548	538	413
55°	315	347	387	346	316	283
65°	103	129	168	128	100	106
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°	955.0	955.0	955.0	955.0	955.0	955.0	955.0	955.0	955.0	955.0	955.0
2.5°	948.2	959.0	960.4	953.6	950.9	946.9	956.3	949.6	952.3	949.6	948.2
5°	936.0	948.2	949.6	949.6	946.9	945.5	949.6	948.2	946.9	944.1	948.2
7.5°	930.6	937.3	944.1	936.0	940.0	938.7	948.2	944.1	942.8	942.8	940.0
10°	933.3	931.9	937.3	929.2	931.9	929.2	937.3	937.3	934.6	931.9	930.6
12.5°	911.5	922.4	922.4	921.1	918.3	914.3	922.4	927.9	919.7	919.7	918.3
15°	899.4	902.1	903.4	903.4	902.1	904.8	908.8	903.4	904.8	898.0	900.7
17.5°	885.8	880.4	884.4	881.7	883.1	885.8	891.2	891.2	883.1	881.7	884.4
20°	854.6	870.9	872.2	864.1	865.4	865.4	875.0	866.8	872.2	865.4	868.2
22.5°	839.6	850.5	851.9	841.0	847.8	839.6	849.2	836.9	850.5	841.0	845.1
25°	820.7	819.3	823.4	818.0	819.3	819.3	826.1	820.7	824.8	819.3	820.7
27.5°	789.5	800.4	799.0	793.5	796.3	794.9	808.5	793.5	801.7	794.9	797.6
30°	762.3	771.8	769.1	763.7	763.7	759.6	774.6	770.5	769.1	769.1	767.8
32.5°	735.2	736.6	733.9	735.2	736.6	731.2	743.3	737.9	736.6	737.9	739.3
35°	698.6	698.6	701.3	697.2	702.7	702.7	713.5	706.7	705.4	701.3	705.4
37.5°	666.0	662.0	663.3	663.3	666.0	668.7	674.2	671.5	671.5	667.4	670.1
40°	622.6	619.9	624.0	624.0	628.1	628.1	633.5	630.8	634.8	634.8	634.8
42.5°	584.7	584.7	582.0	586.0	587.4	586.0	595.5	594.1	595.5	592.8	594.1
45°	543.9	543.9	541.2	539.9	546.6	545.3	556.2	552.1	557.5	554.8	556.2
47.5°	488.3	495.1	491.0	495.1	503.3	504.6	511.4	508.7	514.1	510.1	515.5
50°	435.5	435.5	439.5	444.9	453.1	454.4	462.6	468.0	470.7	472.0	473.4
52.5°	379.8	378.5	382.5	389.3	396.1	401.5	409.7	417.8	423.2	431.4	427.3
55°	314.7	317.4	321.5	329.6	340.5	347.2	354.0	364.9	374.4	378.5	386.6
57.5°	259.1	256.4	259.1	269.9	282.2	287.6	297.1	307.9	321.5	329.6	332.3
60°	200.7	202.1	204.8	214.4	223.8	232.0	236.0	253.6	265.9	274.0	279.4
62.5°	147.9	150.6	153.3	161.4	170.9	177.7	184.5	199.4	210.3	218.4	223.8
65°	103.1	104.4	108.5	112.6	122.1	128.8	134.3	146.5	157.3	164.2	168.2
67.5°	63.8	65.1	67.8	73.3	80.0	85.5	90.9	99.0	108.5	115.3	116.7
70°	32.5	33.9	35.3	39.4	44.8	47.5	51.5	58.3	65.1	70.5	73.3
72.5°	10.8	10.8	12.2	14.9	17.7	20.4	21.7	28.5	33.9	36.6	38.0
75°	2.7	2.7	2.7	2.7	2.7	4.1	4.1	8.1	10.8	13.6	14.9
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°	955.0	955.0	955.0	955.0	955.0	955.0	955.0	955.0	955.0	955.0
2.5°	955.0	952.3	950.9	952.3	952.3	950.9	955.0	960.4	967.2	949.6
5°	953.6	950.9	953.6	945.5	949.6	946.9	952.3	950.9	956.3	950.9
7.5°	949.6	944.1	945.5	941.4	946.9	940.0	944.1	952.3	946.9	938.7
10°	936.0	933.3	942.8	929.2	926.5	931.9	942.8	934.6	931.9	934.6
12.5°	922.4	922.4	926.5	915.6	917.0	919.7	925.1	919.7	922.4	929.2
15°	907.5	904.8	911.5	903.4	902.1	899.4	904.8	904.8	907.5	903.4
17.5°	889.8	885.8	885.8	883.1	881.7	888.5	891.2	892.6	893.9	888.5
20°	868.2	866.8	870.9	866.8	868.2	869.5	869.5	866.8	879.0	864.1
22.5°	845.1	849.2	843.7	841.0	843.7	846.5	846.5	847.8	845.1	842.4
25°	822.0	824.8	826.1	818.0	822.0	818.0	827.5	828.8	823.4	826.1
27.5°	801.7	797.6	796.3	790.8	793.5	792.2	793.5	793.5	801.7	790.8
30°	770.5	766.4	767.8	763.7	765.0	763.7	765.0	765.0	770.5	769.1
32.5°	740.6	736.6	737.9	733.9	733.9	735.2	732.5	732.5	736.6	733.9
35°	712.1	702.7	704.0	702.7	704.0	698.6	698.6	697.2	700.0	693.1
37.5°	671.5	667.4	666.0	664.7	666.0	663.3	666.0	662.0	666.0	660.6
40°	634.8	632.1	633.5	625.3	625.3	626.7	624.0	622.6	624.0	629.4
42.5°	598.2	592.8	590.1	587.4	588.7	584.7	583.3	580.6	583.3	577.9
45°	554.8	554.8	553.5	546.6	548.0	548.0	542.6	537.2	538.5	538.5
47.5°	515.5	512.8	511.4	504.6	503.3	501.9	496.5	492.4	492.4	488.3
50°	472.0	469.3	465.3	458.5	455.8	447.6	443.6	438.2	432.7	432.7
52.5°	431.4	421.8	416.4	405.6	401.5	397.4	386.6	382.5	378.5	374.4
55°	382.5	374.4	363.6	351.3	345.9	339.1	328.3	320.1	314.7	316.1
57.5°	335.1	321.5	310.7	294.4	287.6	283.5	272.6	261.8	256.4	256.4
60°	276.7	265.9	252.3	237.4	232.0	225.2	211.6	204.8	200.7	196.7
62.5°	221.1	213.0	200.7	181.8	177.7	170.9	161.4	153.3	149.2	149.2
65°	165.5	157.3	146.5	132.9	127.5	122.1	114.0	105.8	101.7	100.4
67.5°	116.7	107.1	97.7	86.8	82.7	80.0	71.9	66.5	63.8	62.4
70°	70.5	65.1	58.3	50.2	46.1	43.4	38.0	33.9	32.5	31.2
72.5°	36.6	32.5	27.1	21.7	19.0	16.3	13.6	10.8	9.5	9.5
75°	13.6	10.8	6.8	4.1	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)