

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: P840152

Luminaire Tested: **LD4C25D010 EU4259035 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: P840152
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 EU4259035 4LBCSSQMMS
Description: 4 INCH 2500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MMS FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

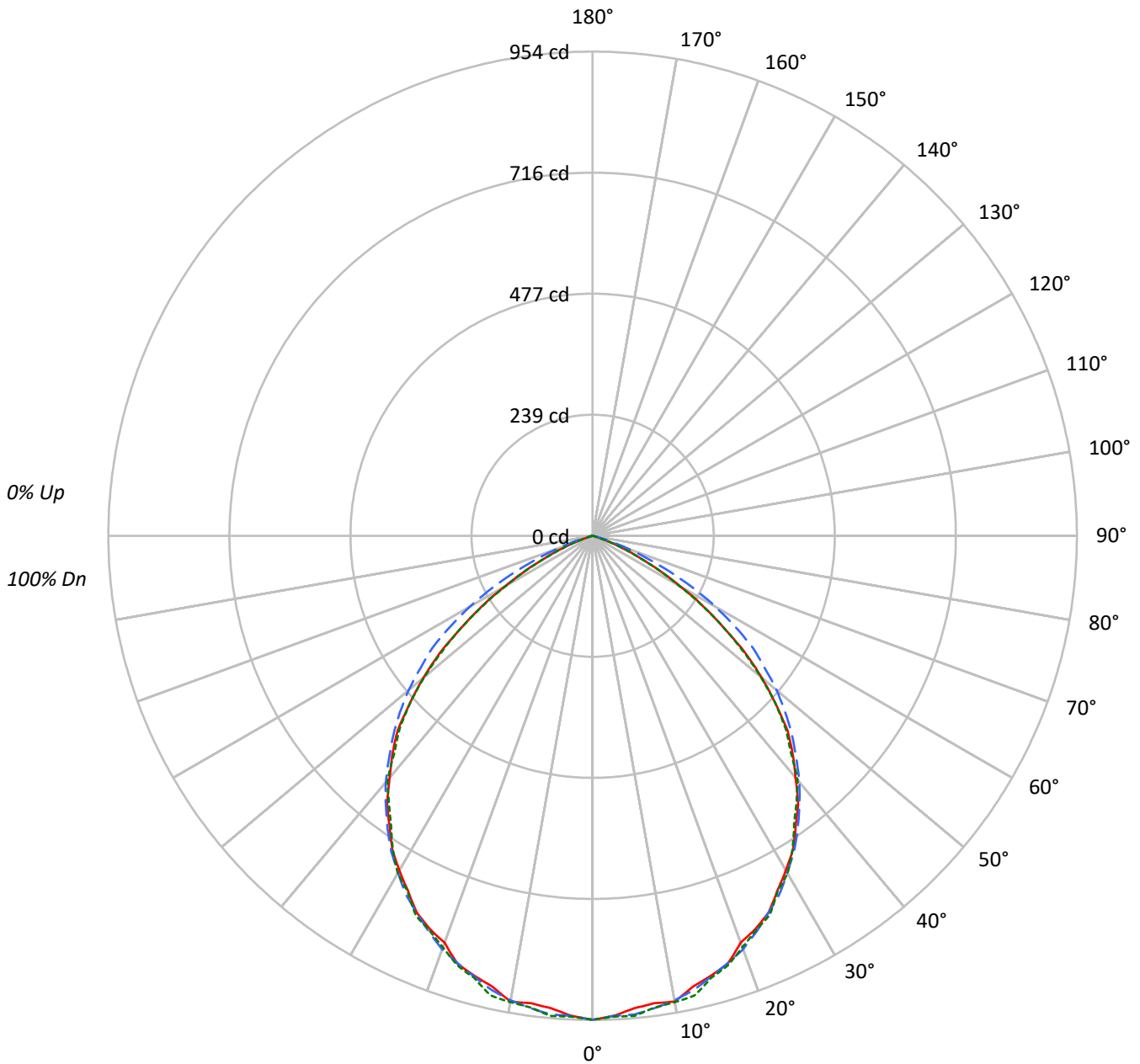
Lumens per Lamp: N/A
Luminaire Lumens: 2037.0 lumens
Efficiency: N/A
Efficacy: 64.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 31.5
Input Voltage (V):
Input Current (Ain): 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°	92012	92012	92012
5°	90523	91705	91966
10°	91305	91041	91433
15°	89704	89843	90113
20°	87618	89014	88593
25°	87247	87247	87822
30°	84810	85411	85567
35°	82159	82960	81523
40°	78308	79844	79164
45°	74109	75774	73372
50°	65268	70957	64863
55°	52856	64934	53091
60°	38673	53841	37901
65°	23516	38334	22877
70°	9169	20651	8802
75°	1007	5555	1007
80°	778	778	778
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.0	4.4
10°-20°	254.7	12.5
20°-30°	377.9	18.6
30°-40°	437.9	21.5
40°-50°	419.8	20.6
50°-60°	308.7	15.2
60°-70°	133.3	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°	722.6	35.5
0°-40°	1160.5	57.0
0°-60°	1889.1	92.7
0°-90°	2037.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2037.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	954	954	954	954	954	
5°	935	944	947	948	950	89
15°	898	904	899	901	902	253
25°	820	818	820	821	825	375
35°	698	702	704	703	692	436
45°	543	544	555	547	538	413
55°	314	347	386	345	316	283
65°	103	129	168	127	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°	953.6	953.6	953.6	953.6	953.6	953.6	953.6	953.6	953.6	953.6	953.6
2.5°	946.8	957.6	959.0	952.2	949.5	945.5	954.9	948.2	950.9	948.2	946.8
5°	934.6	946.8	948.2	948.2	945.5	944.1	948.2	946.8	945.5	942.8	946.8
7.5°	929.2	936.0	942.8	934.6	938.7	937.3	946.8	942.8	941.4	941.4	938.7
10°	931.9	930.5	936.0	927.8	930.5	927.8	936.0	936.0	933.2	930.5	929.2
12.5°	910.2	921.0	921.0	919.7	917.0	912.9	921.0	926.5	918.3	918.3	917.0
15°	898.0	900.8	902.1	902.1	900.8	903.5	907.5	902.1	903.5	896.7	899.4
17.5°	884.5	879.1	883.1	880.4	881.8	884.5	889.9	889.9	881.8	880.4	883.1
20°	853.3	869.6	871.0	862.8	864.2	864.2	873.7	865.5	871.0	864.2	866.9
22.5°	838.4	849.2	850.6	839.8	846.5	838.4	847.9	835.7	849.2	839.8	843.8
25°	819.5	818.1	822.2	816.7	818.1	818.1	824.9	819.5	823.5	818.1	819.5
27.5°	788.3	799.2	797.8	792.4	795.1	793.8	807.3	792.4	800.5	793.8	796.5
30°	761.2	770.7	768.0	762.6	762.6	758.5	773.4	769.3	768.0	768.0	766.6
32.5°	734.1	735.5	732.8	734.1	735.5	730.1	742.3	736.8	735.5	736.8	738.2
35°	697.5	697.5	700.3	696.2	701.6	701.6	712.5	705.7	704.3	700.3	704.3
37.5°	665.0	661.0	662.3	662.3	665.0	667.8	673.2	670.5	670.5	666.4	669.1
40°	621.7	619.0	623.0	623.0	627.1	627.1	632.6	629.8	633.9	633.9	633.9
42.5°	583.8	583.8	581.1	585.1	586.5	585.1	594.6	593.3	594.6	591.9	593.3
45°	543.1	543.1	540.4	539.1	545.8	544.5	555.3	551.3	556.7	554.0	555.3
47.5°	487.6	494.4	490.3	494.4	502.5	503.9	510.6	507.9	513.3	509.3	514.7
50°	434.8	434.8	438.9	444.3	452.4	453.8	461.9	467.3	470.0	471.3	472.7
52.5°	379.3	377.9	382.0	388.7	395.5	400.9	409.1	417.2	422.6	430.7	426.6
55°	314.2	316.9	321.0	329.2	340.0	346.7	353.5	364.4	373.9	377.9	386.0
57.5°	258.7	256.0	258.7	269.5	281.7	287.2	296.7	307.5	321.0	329.2	331.9
60°	200.4	201.8	204.5	214.0	223.5	231.6	235.7	253.3	265.5	273.6	279.0
62.5°	147.7	150.4	153.1	161.2	170.7	177.5	184.2	199.1	209.9	218.1	223.5
65°	103.0	104.3	108.4	112.4	121.9	128.7	134.1	146.3	157.1	163.9	167.9
67.5°	63.7	65.0	67.7	73.2	79.9	85.3	90.7	98.9	108.4	115.1	116.5
70°	32.5	33.9	35.2	39.3	44.7	47.4	51.5	58.2	65.0	70.4	73.2
72.5°	10.8	10.8	12.2	14.9	17.6	20.3	21.7	28.5	33.9	36.6	37.9
75°	2.7	2.7	2.7	2.7	2.7	4.1	4.1	8.1	10.8	13.5	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°	953.6	953.6	953.6	953.6	953.6	953.6	953.6	953.6	953.6	953.6
2.5°	953.6	950.9	949.5	950.9	950.9	949.5	953.6	959.0	965.7	948.2
5°	952.2	949.5	952.2	944.1	948.2	945.5	950.9	949.5	954.9	949.5
7.5°	948.2	942.8	944.1	940.0	945.5	938.7	942.8	950.9	945.5	937.3
10°	934.6	931.9	941.4	927.8	925.1	930.5	941.4	933.2	930.5	933.2
12.5°	921.0	921.0	925.1	914.3	915.6	918.3	923.7	918.3	921.0	927.8
15°	906.2	903.5	910.2	902.1	900.8	898.0	903.5	903.5	906.2	902.1
17.5°	888.5	884.5	884.5	881.8	880.4	887.2	889.9	891.2	892.6	887.2
20°	866.9	865.5	869.6	865.5	866.9	868.3	868.3	865.5	877.7	862.8
22.5°	843.8	847.9	842.5	839.8	842.5	845.2	845.2	846.5	843.8	841.1
25°	820.8	823.5	824.9	816.7	820.8	816.7	826.3	827.6	822.2	824.9
27.5°	800.5	796.5	795.1	789.7	792.4	791.1	792.4	792.4	800.5	789.7
30°	769.3	765.3	766.6	762.6	763.9	762.6	763.9	763.9	769.3	768.0
32.5°	739.5	735.5	736.8	732.8	732.8	734.1	731.4	731.4	735.5	732.8
35°	711.1	701.6	703.0	701.6	703.0	697.5	697.5	696.2	698.9	692.1
37.5°	670.5	666.4	665.0	663.7	665.0	662.3	665.0	661.0	665.0	659.6
40°	633.9	631.2	632.6	624.4	624.4	625.8	623.0	621.7	623.0	628.5
42.5°	597.3	591.9	589.2	586.5	587.8	583.8	582.4	579.7	582.4	577.0
45°	554.0	554.0	552.6	545.8	547.2	547.2	541.8	536.4	537.7	537.7
47.5°	514.7	512.0	510.6	503.9	502.5	501.2	495.7	491.7	491.7	487.6
50°	471.3	468.6	464.6	457.8	455.1	447.0	442.9	437.5	432.1	432.1
52.5°	430.7	421.2	415.8	405.0	400.9	396.9	386.0	382.0	377.9	373.9
55°	382.0	373.9	363.0	350.8	345.4	338.6	327.8	319.6	314.2	315.6
57.5°	334.6	321.0	310.2	293.9	287.2	283.1	272.2	261.4	256.0	256.0
60°	276.3	265.5	251.9	237.0	231.6	224.9	211.3	204.5	200.4	196.4
62.5°	220.8	212.7	200.4	181.5	177.5	170.7	161.2	153.1	149.0	149.0
65°	165.2	157.1	146.3	132.7	127.3	121.9	113.8	105.7	101.6	100.2
67.5°	116.5	107.0	97.5	86.7	82.6	79.9	71.8	66.4	63.7	62.3
70°	70.4	65.0	58.2	50.1	46.0	43.3	37.9	33.9	32.5	31.2
72.5°	36.6	32.5	27.1	21.7	19.0	16.2	13.5	10.8	9.5	9.5
75°	13.5	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)