

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: P840156

Luminaire Tested: **LD4C25D010 EU4259050 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: P840156
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 EU4259050 4LBCSSQMMS
Description: 4 INCH 2500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MMS FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

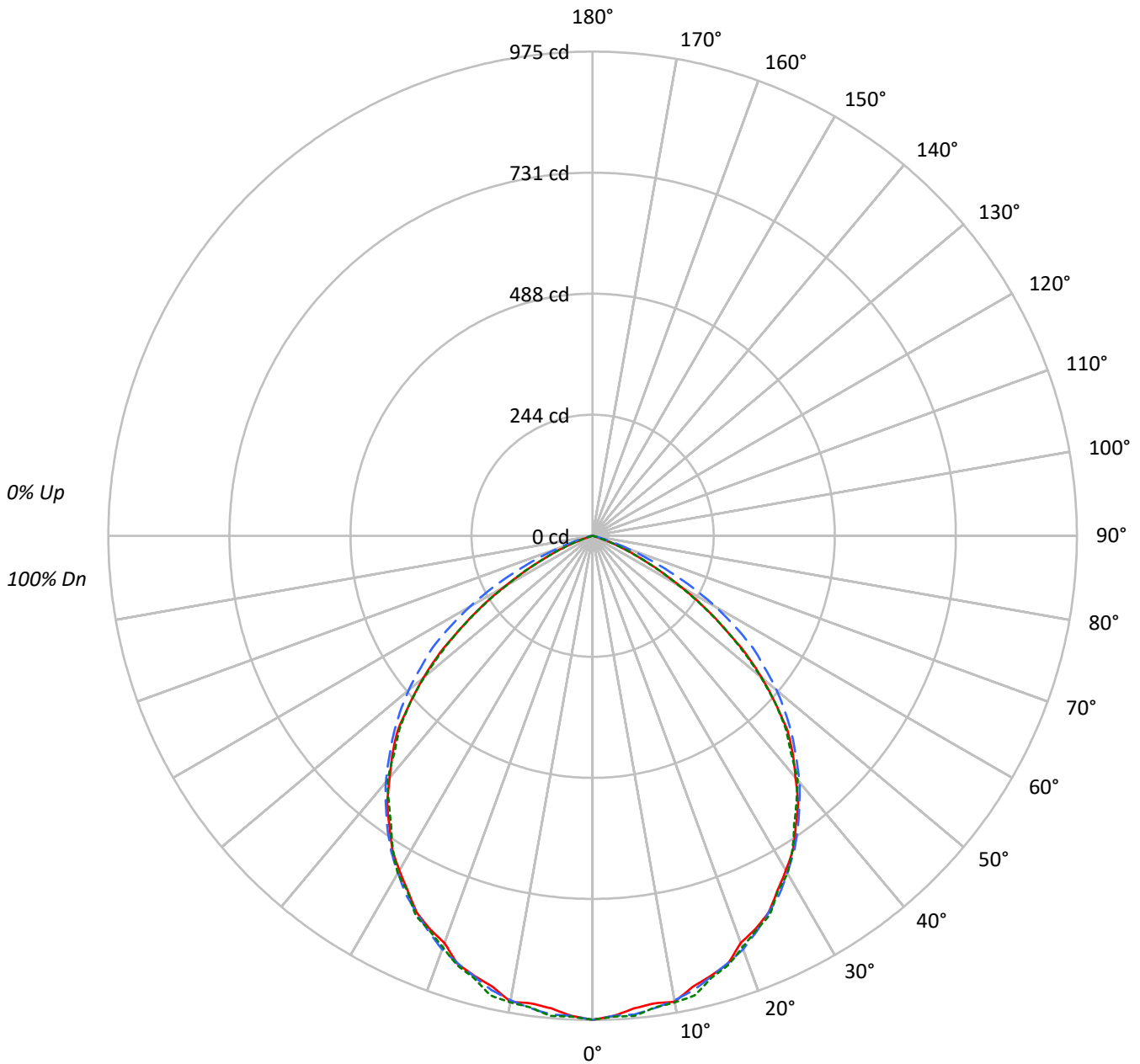
Lumens per Lamp: N/A
Luminaire Lumens: 2082.0 lumens
Efficiency: N/A
Efficacy: 66.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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									
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°	94038	94038	94038
5°	92528	93729	94000
10°	93323	93049	93461
15°	91691	91821	92101
20°	89559	90976	90555
25°	89174	89174	89760
30°	86681	87305	87461
35°	83985	84798	83325
40°	80046	81608	80902
45°	75747	77452	74996
50°	66709	72533	66304
55°	54033	66364	54269
60°	39541	55037	38731
65°	24018	39201	23402
70°	9366	21102	8999
75°	1044	5704	1044
80°	778	778	778
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.0	4.4
10°-20°	260.3	12.5
20°-30°	386.3	18.6
30°-40°	447.6	21.5
40°-50°	429.1	20.6
50°-60°	315.5	15.2
60°-70°	136.3	6.5
70°-80°	14.7	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°	738.6	35.5
0°-40°	1186.2	57.0
0°-60°	1930.8	92.7
0°-90°	2082.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2082.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	975	975	975	975	975	
5°	955	965	968	969	970	91
15°	918	923	919	921	922	259
25°	838	836	838	839	843	383
35°	713	717	720	718	707	446
45°	555	556	568	559	550	422
55°	321	354	394	353	323	289
65°	105	132	172	130	102	108
75°	3	4	15	3	3	9
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°	974.6	974.6	974.6	974.6	974.6	974.6	974.6	974.6	974.6	974.6	974.6
2.5°	967.7	978.8	980.2	973.2	970.5	966.3	976.0	969.1	971.9	969.1	967.7
5°	955.3	967.7	969.1	969.1	966.3	964.9	969.1	967.7	966.3	963.6	967.7
7.5°	949.7	956.6	963.6	955.3	959.4	958.0	967.7	963.6	962.2	962.2	959.4
10°	952.5	951.1	956.6	948.3	951.1	948.3	956.6	956.6	953.9	951.1	949.7
12.5°	930.3	941.4	941.4	940.0	937.3	933.1	941.4	947.0	938.6	938.6	937.3
15°	917.9	920.6	922.0	922.0	920.6	923.4	927.5	922.0	923.4	916.5	919.2
17.5°	904.0	898.5	902.6	899.9	901.3	904.0	909.6	909.6	901.3	899.9	902.6
20°	872.2	888.8	890.2	881.9	883.3	883.3	893.0	884.7	890.2	883.3	886.0
22.5°	856.9	868.0	869.4	858.3	865.2	856.9	866.6	854.2	868.0	858.3	862.5
25°	837.6	836.2	840.3	834.8	836.2	836.2	843.1	837.6	841.7	836.2	837.6
27.5°	805.8	816.8	815.4	809.9	812.7	811.3	825.1	809.9	818.2	811.3	814.1
30°	778.0	787.7	785.0	779.4	779.4	775.3	790.5	786.3	785.0	785.0	783.6
32.5°	750.3	751.8	749.0	750.3	751.8	746.2	758.7	753.1	751.8	753.1	754.5
35°	713.0	713.0	715.7	711.6	717.1	717.1	728.2	721.3	719.9	715.7	719.9
37.5°	679.7	675.6	677.0	677.0	679.7	682.5	688.0	685.3	685.3	681.2	683.9
40°	635.5	632.7	636.8	636.8	641.0	641.0	646.5	643.8	647.9	647.9	647.9
42.5°	596.7	596.7	593.9	598.1	599.5	598.1	607.8	606.4	607.8	605.0	606.4
45°	555.1	555.1	552.4	551.0	557.9	556.5	567.6	563.4	569.0	566.2	567.6
47.5°	498.4	505.3	501.1	505.3	513.6	515.0	521.9	519.2	524.7	520.6	526.1
50°	444.4	444.4	448.5	454.1	462.4	463.8	472.1	477.6	480.4	481.8	483.2
52.5°	387.7	386.2	390.4	397.3	404.3	409.8	418.1	426.4	431.9	440.2	436.1
55°	321.2	323.9	328.1	336.4	347.5	354.4	361.3	372.4	382.1	386.2	394.5
57.5°	264.4	261.6	264.4	275.5	288.0	293.5	303.2	314.3	328.1	336.4	339.2
60°	204.9	206.3	209.1	218.8	228.4	236.7	240.9	258.9	271.4	279.7	285.2
62.5°	150.9	153.7	156.5	164.8	174.4	181.4	188.3	203.5	214.6	222.9	228.4
65°	105.2	106.6	110.8	114.9	124.6	131.5	137.0	149.5	160.6	167.5	171.7
67.5°	65.1	66.4	69.2	74.8	81.7	87.2	92.7	101.1	110.8	117.7	119.1
70°	33.2	34.6	36.0	40.2	45.7	48.5	52.6	59.5	66.4	72.0	74.8
72.5°	11.1	11.1	12.5	15.3	18.0	20.8	22.1	29.1	34.6	37.4	38.7
75°	2.8	2.8	2.8	2.8	2.8	4.2	4.2	8.3	11.1	13.8	15.3
77.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.8	2.8
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°	974.6	974.6	974.6	974.6	974.6	974.6	974.6	974.6	974.6	974.6
2.5°	974.6	971.9	970.5	971.9	971.9	970.5	974.6	980.2	987.1	969.1
5°	973.2	970.5	973.2	964.9	969.1	966.3	971.9	970.5	976.0	970.5
7.5°	969.1	963.6	964.9	960.8	966.3	959.4	963.6	971.9	966.3	958.0
10°	955.3	952.5	962.2	948.3	945.6	951.1	962.2	953.9	951.1	953.9
12.5°	941.4	941.4	945.6	934.5	935.8	938.6	944.1	938.6	941.4	948.3
15°	926.2	923.4	930.3	922.0	920.6	917.9	923.4	923.4	926.2	922.0
17.5°	908.2	904.0	904.0	901.3	899.9	906.8	909.6	910.9	912.3	906.8
20°	886.0	884.7	888.8	884.7	886.0	887.4	887.4	884.7	897.1	881.9
22.5°	862.5	866.6	861.1	858.3	861.1	863.9	863.9	865.2	862.5	859.7
25°	839.0	841.7	843.1	834.8	839.0	834.8	844.5	845.9	840.3	843.1
27.5°	818.2	814.1	812.7	807.1	809.9	808.5	809.9	809.9	818.2	807.1
30°	786.3	782.2	783.6	779.4	780.8	779.4	780.8	780.8	786.3	785.0
32.5°	755.9	751.8	753.1	749.0	749.0	750.3	747.6	747.6	751.8	749.0
35°	726.8	717.1	718.5	717.1	718.5	713.0	713.0	711.6	714.4	707.4
37.5°	685.3	681.2	679.7	678.4	679.7	677.0	679.7	675.6	679.7	674.2
40°	647.9	645.1	646.5	638.2	638.2	639.6	636.8	635.5	636.8	642.3
42.5°	610.5	605.0	602.2	599.5	600.8	596.7	595.3	592.5	595.3	589.8
45°	566.2	566.2	564.9	557.9	559.3	559.3	553.8	548.2	549.6	549.6
47.5°	526.1	523.3	521.9	515.0	513.6	512.3	506.7	502.5	502.5	498.4
50°	481.8	479.0	474.9	467.9	465.2	456.9	452.7	447.2	441.7	441.7
52.5°	440.2	430.5	425.0	413.9	409.8	405.6	394.5	390.4	386.2	382.1
55°	390.4	382.1	371.0	358.6	353.0	346.1	335.0	326.7	321.2	322.6
57.5°	342.0	328.1	317.0	300.4	293.5	289.3	278.2	267.2	261.6	261.6
60°	282.4	271.4	257.5	242.3	236.7	229.8	215.9	209.1	204.9	200.7
62.5°	225.7	217.4	204.9	185.5	181.4	174.4	164.8	156.5	152.3	152.3
65°	168.9	160.6	149.5	135.7	130.1	124.6	116.3	108.0	103.8	102.5
67.5°	119.1	109.4	99.7	88.6	84.4	81.7	73.4	67.8	65.1	63.7
70°	72.0	66.4	59.5	51.2	47.1	44.3	38.7	34.6	33.2	31.9
72.5°	37.4	33.2	27.7	22.1	19.4	16.6	13.8	11.1	9.7	9.7
75°	13.8	11.1	6.9	4.2	2.8	2.8	2.8	2.8	2.8	2.8
77.5°	2.8	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)