

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: P840149

Luminaire Tested: **LD4C25D010 EU4259027 4LBCSSQMW**

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: P840149
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 EU4259027 4LBCSSQMW
Description: 4 INCH 2500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MW FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

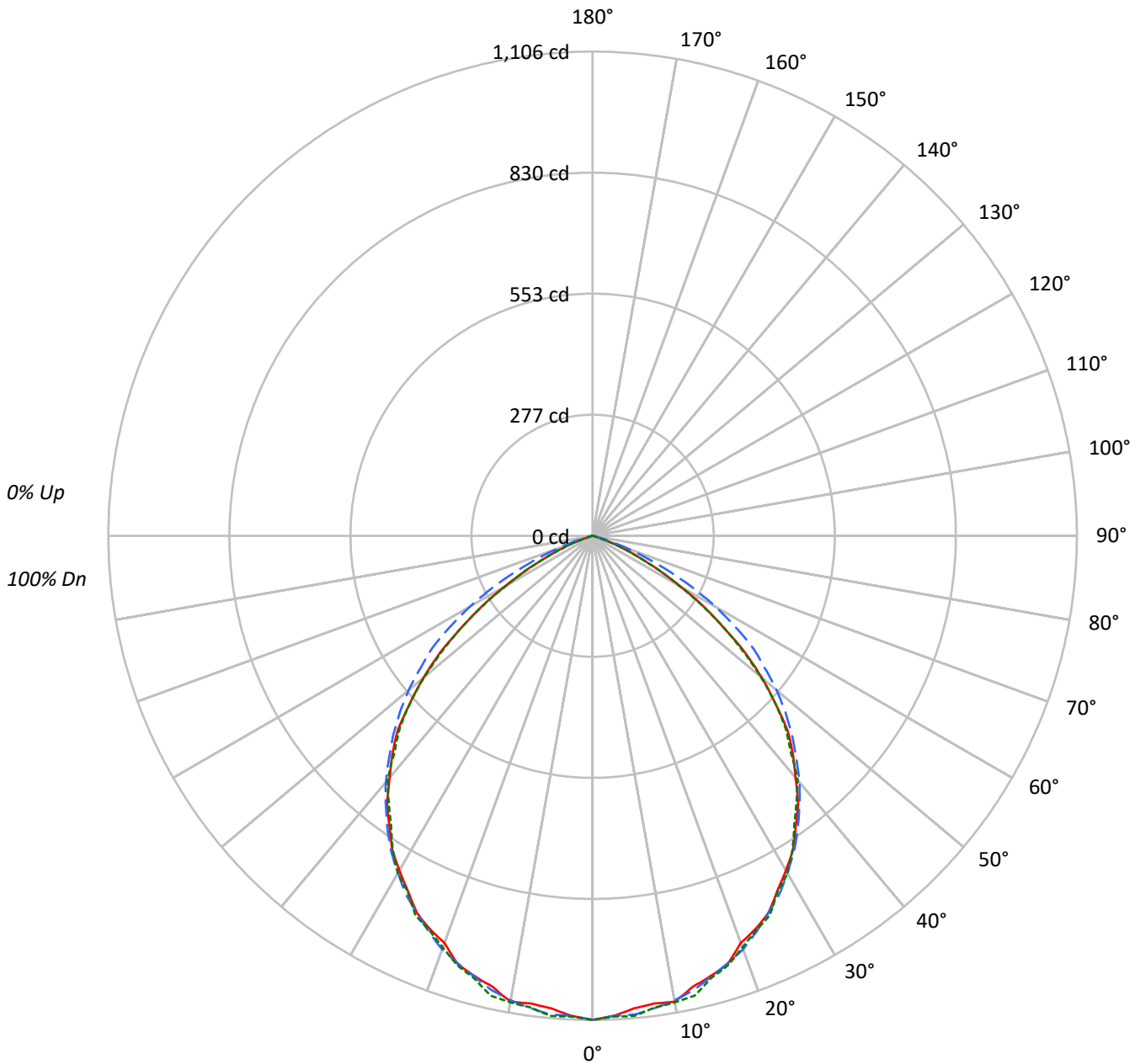
Lumens per Lamp: N/A
Luminaire Lumens: 2362.0 lumens
Efficiency: N/A
Efficacy: 75.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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°	106688	106688	106688
5°	104964	106330	106640
10°	105874	105571	106021
15°	104018	104178	104488
20°	101603	103215	102733
25°	101162	101162	101833
30°	98347	99037	99216
35°	95270	96200	94539
40°	90803	92579	91785
45°	85940	87878	85080
50°	75685	82290	75220
55°	61301	75297	61570
60°	44848	62428	43941
65°	27260	44452	26530
70°	10636	23923	10184
75°	1156	6450	1156
80°	889	889	889
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.4	4.4
10°-20°	295.3	12.5
20°-30°	438.2	18.6
30°-40°	507.8	21.5
40°-50°	486.8	20.6
50°-60°	357.9	15.2
60°-70°	154.6	6.5
70°-80°	16.7	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°	837.9	35.5
0°-40°	1345.7	57.0
0°-60°	2190.5	92.7
0°-90°	2362.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2362.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1106	1106	1106	1106	1106	
5°	1084	1095	1098	1099	1101	103
15°	1041	1048	1043	1044	1046	293
25°	950	949	950	952	956	435
35°	809	814	817	815	803	506
45°	630	631	644	634	624	479
55°	364	402	448	400	366	328
65°	119	149	195	148	116	123
75°	3	5	17	3	3	10
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°	1105.7	1105.7	1105.7	1105.7	1105.7	1105.7	1105.7	1105.7	1105.7	1105.7	1105.7
2.5°	1097.8	1110.4	1112.0	1104.1	1101.0	1096.3	1107.3	1099.4	1102.6	1099.4	1097.8
5°	1083.7	1097.8	1099.4	1099.4	1096.3	1094.7	1099.4	1097.8	1096.3	1093.2	1097.8
7.5°	1077.5	1085.3	1093.2	1083.7	1088.4	1086.9	1097.8	1093.2	1091.6	1091.6	1088.4
10°	1080.6	1079.0	1085.3	1075.9	1079.0	1075.9	1085.3	1085.3	1082.1	1079.0	1077.5
12.5°	1055.4	1068.0	1068.0	1066.4	1063.3	1058.6	1068.0	1074.3	1064.8	1064.8	1063.3
15°	1041.3	1044.5	1046.0	1046.0	1044.5	1047.6	1052.3	1046.0	1047.6	1039.7	1042.9
17.5°	1025.6	1019.3	1024.0	1020.9	1022.5	1025.6	1031.9	1031.9	1022.5	1020.9	1024.0
20°	989.5	1008.3	1009.9	1000.5	1002.0	1002.0	1013.1	1003.6	1009.9	1002.0	1005.2
22.5°	972.2	984.7	986.3	973.8	981.6	972.2	983.2	969.0	984.7	973.8	978.5
25°	950.2	948.7	953.3	947.1	948.7	948.7	956.5	950.2	954.9	948.7	950.2
27.5°	914.1	926.7	925.1	918.8	921.9	920.4	936.1	918.8	928.2	920.4	923.5
30°	882.7	893.7	890.5	884.3	884.3	879.5	896.8	892.1	890.5	890.5	888.9
32.5°	851.3	852.9	849.7	851.3	852.9	846.6	860.7	854.4	852.9	854.4	856.0
35°	808.8	808.8	812.0	807.3	813.6	813.6	826.1	818.3	816.7	812.0	816.7
37.5°	771.2	766.5	768.0	768.0	771.2	774.3	780.6	777.4	777.4	772.8	775.9
40°	720.9	717.8	722.5	722.5	727.2	727.2	733.5	730.3	735.0	735.0	735.0
42.5°	677.0	677.0	673.8	678.5	680.1	678.5	689.5	687.9	689.5	686.4	687.9
45°	629.8	629.8	626.7	625.1	632.9	631.4	644.0	639.2	645.5	642.4	644.0
47.5°	565.4	573.3	568.5	573.3	582.7	584.3	592.1	589.0	595.3	590.6	596.9
50°	504.2	504.2	508.9	515.2	524.6	526.2	535.6	541.9	545.0	546.6	548.2
52.5°	439.8	438.2	442.9	450.7	458.6	464.9	474.3	483.8	490.0	499.5	494.7
55°	364.4	367.5	372.2	381.7	394.2	402.0	409.9	422.5	433.5	438.2	447.6
57.5°	300.0	296.8	300.0	312.5	326.7	333.0	344.0	356.5	372.2	381.7	384.8
60°	232.4	234.0	237.2	248.2	259.1	268.6	273.3	293.7	307.8	317.3	323.5
62.5°	171.2	174.4	177.5	186.9	197.9	205.8	213.6	230.9	243.4	252.9	259.1
65°	119.4	120.9	125.7	130.3	141.4	149.2	155.5	169.6	182.2	190.1	194.7
67.5°	73.8	75.4	78.5	84.8	92.7	98.9	105.2	114.6	125.7	133.5	135.1
70°	37.7	39.3	40.8	45.6	51.8	55.0	59.7	67.5	75.4	81.6	84.8
72.5°	12.6	12.6	14.2	17.3	20.4	23.6	25.1	33.0	39.3	42.4	44.0
75°	3.1	3.1	3.1	3.1	3.1	4.7	4.7	9.4	12.6	15.7	17.3
77.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.1	3.1
80°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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°	1105.7	1105.7	1105.7	1105.7	1105.7	1105.7	1105.7	1105.7	1105.7	1105.7
2.5°	1105.7	1102.6	1101.0	1102.6	1102.6	1101.0	1105.7	1112.0	1119.8	1099.4
5°	1104.1	1101.0	1104.1	1094.7	1099.4	1096.3	1102.6	1101.0	1107.3	1101.0
7.5°	1099.4	1093.2	1094.7	1090.0	1096.3	1088.4	1093.2	1102.6	1096.3	1086.9
10°	1083.7	1080.6	1091.6	1075.9	1072.7	1079.0	1091.6	1082.1	1079.0	1082.1
12.5°	1068.0	1068.0	1072.7	1060.2	1061.7	1064.8	1071.1	1064.8	1068.0	1075.9
15°	1050.7	1047.6	1055.4	1046.0	1044.5	1041.3	1047.6	1047.6	1050.7	1046.0
17.5°	1030.3	1025.6	1025.6	1022.5	1020.9	1028.8	1031.9	1033.4	1035.0	1028.8
20°	1005.2	1003.6	1008.3	1003.6	1005.2	1006.8	1006.8	1003.6	1017.7	1000.5
22.5°	978.5	983.2	976.9	973.8	976.9	980.1	980.1	981.6	978.5	975.3
25°	951.8	954.9	956.5	947.1	951.8	947.1	958.1	959.6	953.3	956.5
27.5°	928.2	923.5	921.9	915.7	918.8	917.3	918.8	918.8	928.2	915.7
30°	892.1	887.4	888.9	884.3	885.8	884.3	885.8	885.8	892.1	890.5
32.5°	857.5	852.9	854.4	849.7	849.7	851.3	848.1	848.1	852.9	849.7
35°	824.5	813.6	815.1	813.6	815.1	808.8	808.8	807.3	810.4	802.6
37.5°	777.4	772.8	771.2	769.6	771.2	768.0	771.2	766.5	771.2	764.9
40°	735.0	731.9	733.5	724.1	724.1	725.6	722.5	720.9	722.5	728.7
42.5°	692.7	686.4	683.2	680.1	681.6	677.0	675.4	672.2	675.4	669.1
45°	642.4	642.4	640.8	632.9	634.5	634.5	628.3	622.0	623.5	623.5
47.5°	596.9	593.7	592.1	584.3	582.7	581.2	574.8	570.1	570.1	565.4
50°	546.6	543.4	538.7	530.9	527.7	518.3	513.6	507.3	501.1	501.1
52.5°	499.5	488.4	482.2	469.6	464.9	460.2	447.6	442.9	438.2	433.5
55°	442.9	433.5	421.0	406.8	400.5	392.6	380.1	370.6	364.4	366.0
57.5°	387.9	372.2	359.7	340.8	333.0	328.2	315.7	303.1	296.8	296.8
60°	320.4	307.8	292.1	274.8	268.6	260.7	245.0	237.2	232.4	227.7
62.5°	256.0	246.6	232.4	210.4	205.8	197.9	186.9	177.5	172.8	172.8
65°	191.6	182.2	169.6	153.9	147.6	141.4	131.9	122.5	117.8	116.2
67.5°	135.1	124.1	113.1	100.5	95.8	92.7	83.2	77.0	73.8	72.2
70°	81.6	75.4	67.5	58.1	53.4	50.2	44.0	39.3	37.7	36.1
72.5°	42.4	37.7	31.4	25.1	22.0	18.8	15.7	12.6	11.0	11.0
75°	15.7	12.6	7.9	4.7	3.1	3.1	3.1	3.1	3.1	3.1
77.5°	3.1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
80°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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)