

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: P840153

Luminaire Tested: **LD4C25D010 EU4259035 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: P840153
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 4LBCSSQMW
Description: 4 INCH 2500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MW FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

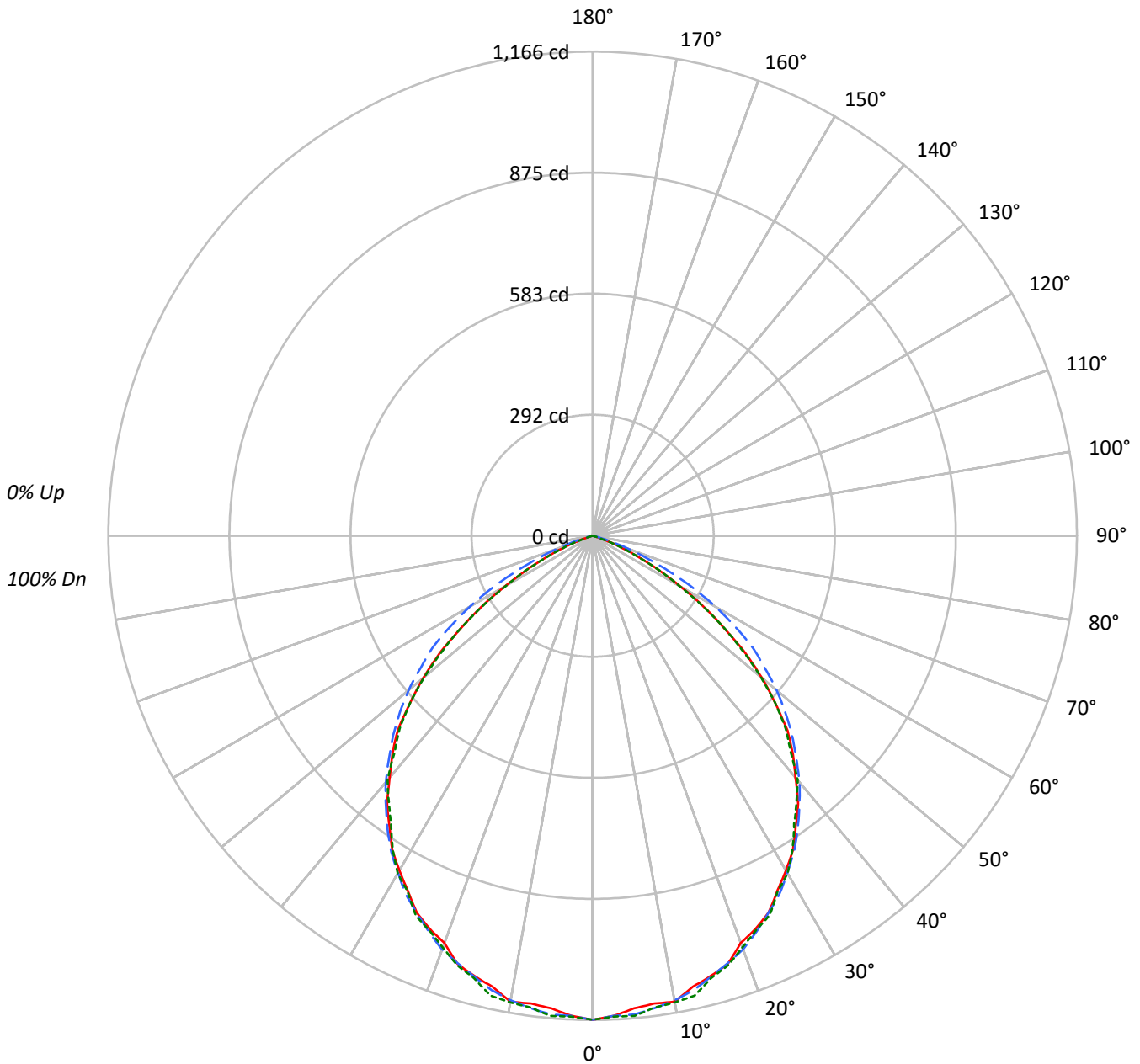
Lumens per Lamp: N/A
Luminaire Lumens: 2490.0 lumens
Efficiency: N/A
Efficacy: 79.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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								
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°	112467	112467	112467
5°	110660	112093	112413
10°	111616	111293	111773
15°	109662	109822	110152
20°	107107	108811	108298
25°	106645	106645	107347
30°	103672	104408	104597
35°	100441	101418	99651
40°	95728	97592	96760
45°	90593	92640	89692
50°	79784	86749	79288
55°	64615	79385	64901
60°	47280	65825	46334
65°	28745	46872	27968
70°	11200	25221	10749
75°	1230	6785	1230
80°	945	945	945
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.0	4.4
10°-20°	311.3	12.5
20°-30°	462.0	18.6
30°-40°	535.3	21.5
40°-50°	513.2	20.6
50°-60°	377.3	15.2
60°-70°	163.0	6.5
70°-80°	17.6	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°	883.3	35.5
0°-40°	1418.6	57.0
0°-60°	2309.2	92.7
0°-90°	2490.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2490.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1166	1166	1166	1166	1166	
5°	1142	1154	1157	1159	1161	109
15°	1098	1104	1099	1101	1103	309
25°	1002	1000	1002	1003	1008	459
35°	853	858	861	859	846	533
45°	664	666	679	669	657	505
55°	384	424	472	422	386	346
65°	126	157	205	156	122	129
75°	3	5	18	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°	1165.6	1165.6	1165.6	1165.6	1165.6	1165.6	1165.6	1165.6	1165.6	1165.6	1165.6
2.5°	1157.3	1170.6	1172.3	1164.0	1160.6	1155.7	1167.3	1159.0	1162.3	1159.0	1157.3
5°	1142.5	1157.3	1159.0	1159.0	1155.7	1154.0	1159.0	1157.3	1155.7	1152.4	1157.3
7.5°	1135.9	1144.1	1152.4	1142.5	1147.4	1145.8	1157.3	1152.4	1150.7	1150.7	1147.4
10°	1139.2	1137.5	1144.1	1134.2	1137.5	1134.2	1144.1	1144.1	1140.8	1137.5	1135.9
12.5°	1112.6	1125.9	1125.9	1124.2	1120.9	1115.9	1125.9	1132.5	1122.5	1122.5	1120.9
15°	1097.8	1101.1	1102.7	1102.7	1101.1	1104.4	1109.3	1102.7	1104.4	1096.1	1099.4
17.5°	1081.2	1074.6	1079.5	1076.2	1077.9	1081.2	1087.8	1087.8	1077.9	1076.2	1079.5
20°	1043.1	1063.0	1064.7	1054.7	1056.3	1056.3	1068.0	1058.0	1064.7	1056.3	1059.7
22.5°	1024.9	1038.1	1039.8	1026.6	1034.8	1024.9	1036.5	1021.6	1038.1	1026.6	1031.5
25°	1001.7	1000.1	1005.0	998.4	1000.1	1000.1	1008.3	1001.7	1006.7	1000.1	1001.7
27.5°	963.7	976.9	975.2	968.6	971.9	970.3	986.8	968.6	978.5	970.3	973.6
30°	930.5	942.1	938.8	932.2	932.2	927.2	945.4	940.4	938.8	938.8	937.1
32.5°	897.4	899.1	895.8	897.4	899.1	892.5	907.3	900.7	899.1	900.7	902.4
35°	852.7	852.7	856.0	851.0	857.7	857.7	870.9	862.6	861.0	856.0	861.0
37.5°	812.9	808.0	809.6	809.6	812.9	816.3	822.9	819.6	819.6	814.6	817.9
40°	760.0	756.7	761.6	761.6	766.6	766.6	773.2	769.9	774.8	774.8	774.8
42.5°	713.6	713.6	710.3	715.3	717.0	715.3	726.9	725.2	726.9	723.6	725.2
45°	663.9	663.9	660.6	659.0	667.2	665.6	678.9	673.9	680.5	677.2	678.9
47.5°	596.0	604.3	599.3	604.3	614.3	616.0	624.2	620.9	627.5	622.6	629.2
50°	531.5	531.5	536.4	543.1	553.0	554.7	564.6	571.2	574.5	576.2	577.9
52.5°	463.6	461.9	466.9	475.2	483.5	490.1	500.0	510.0	516.6	526.5	521.5
55°	384.1	387.4	392.4	402.4	415.6	423.8	432.1	445.4	457.0	461.9	471.9
57.5°	316.2	312.9	316.2	329.5	344.4	351.0	362.6	375.9	392.4	402.4	405.7
60°	245.0	246.7	250.0	261.6	273.2	283.1	288.1	309.6	324.5	334.5	341.1
62.5°	180.5	183.8	187.1	197.1	208.6	216.9	225.2	243.4	256.6	266.6	273.2
65°	125.9	127.5	132.5	137.4	149.0	157.3	163.9	178.8	192.1	200.4	205.3
67.5°	77.8	79.4	82.8	89.4	97.7	104.3	110.9	120.9	132.5	140.7	142.4
70°	39.7	41.4	43.0	48.0	54.7	58.0	62.9	71.2	79.4	86.1	89.4
72.5°	13.2	13.2	14.9	18.2	21.5	24.9	26.5	34.8	41.4	44.7	46.3
75°	3.3	3.3	3.3	3.3	3.3	5.0	5.0	9.9	13.2	16.6	18.2
77.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	3.3	3.3
80°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
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°	1165.6	1165.6	1165.6	1165.6	1165.6	1165.6	1165.6	1165.6	1165.6	1165.6
2.5°	1165.6	1162.3	1160.6	1162.3	1162.3	1160.6	1165.6	1172.3	1180.5	1159.0
5°	1164.0	1160.6	1164.0	1154.0	1159.0	1155.7	1162.3	1160.6	1167.3	1160.6
7.5°	1159.0	1152.4	1154.0	1149.1	1155.7	1147.4	1152.4	1162.3	1155.7	1145.8
10°	1142.5	1139.2	1150.7	1134.2	1130.9	1137.5	1150.7	1140.8	1137.5	1140.8
12.5°	1125.9	1125.9	1130.9	1117.6	1119.2	1122.5	1129.2	1122.5	1125.9	1134.2
15°	1107.7	1104.4	1112.6	1102.7	1101.1	1097.8	1104.4	1104.4	1107.7	1102.7
17.5°	1086.1	1081.2	1081.2	1077.9	1076.2	1084.5	1087.8	1089.4	1091.1	1084.5
20°	1059.7	1058.0	1063.0	1058.0	1059.7	1061.3	1061.3	1058.0	1072.9	1054.7
22.5°	1031.5	1036.5	1029.9	1026.6	1029.9	1033.2	1033.2	1034.8	1031.5	1028.2
25°	1003.4	1006.7	1008.3	998.4	1003.4	998.4	1010.0	1011.6	1005.0	1008.3
27.5°	978.5	973.6	971.9	965.3	968.6	967.0	968.6	968.6	978.5	965.3
30°	940.4	935.5	937.1	932.2	933.8	932.2	933.8	933.8	940.4	938.8
32.5°	904.0	899.1	900.7	895.8	895.8	897.4	894.1	894.1	899.1	895.8
35°	869.2	857.7	859.3	857.7	859.3	852.7	852.7	851.0	854.4	846.0
37.5°	819.6	814.6	812.9	811.3	812.9	809.6	812.9	808.0	812.9	806.3
40°	774.8	771.5	773.2	763.3	763.3	764.9	761.6	760.0	761.6	768.2
42.5°	730.2	723.6	720.3	717.0	718.6	713.6	712.0	708.6	712.0	705.3
45°	677.2	677.2	675.5	667.2	668.9	668.9	662.3	655.7	657.3	657.3
47.5°	629.2	625.9	624.2	616.0	614.3	612.6	606.0	601.0	601.0	596.0
50°	576.2	572.9	567.9	559.6	556.3	546.4	541.4	534.8	528.2	528.2
52.5°	526.5	514.9	508.3	495.0	490.1	485.1	471.9	466.9	461.9	457.0
55°	466.9	457.0	443.8	428.8	422.2	413.9	400.7	390.7	384.1	385.8
57.5°	409.0	392.4	379.2	359.3	351.0	346.0	332.8	319.5	312.9	312.9
60°	337.8	324.5	308.0	289.7	283.1	274.9	258.3	250.0	245.0	240.1
62.5°	269.9	259.9	245.0	221.8	216.9	208.6	197.1	187.1	182.1	182.1
65°	202.0	192.1	178.8	162.3	155.6	149.0	139.1	129.2	124.2	122.5
67.5°	142.4	130.8	119.2	106.0	101.0	97.7	87.8	81.1	77.8	76.1
70°	86.1	79.4	71.2	61.3	56.3	53.0	46.3	41.4	39.7	38.1
72.5°	44.7	39.7	33.1	26.5	23.2	19.9	16.6	13.2	11.6	11.6
75°	16.6	13.2	8.3	5.0	3.3	3.3	3.3	3.3	3.3	3.3
77.5°	3.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
80°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
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)