

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: P840151

Luminaire Tested: **LD4C25D010 EU4259030 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: P840151
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 EU4259030 4LBCSSQMW
Description: 4 INCH 2500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MW FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

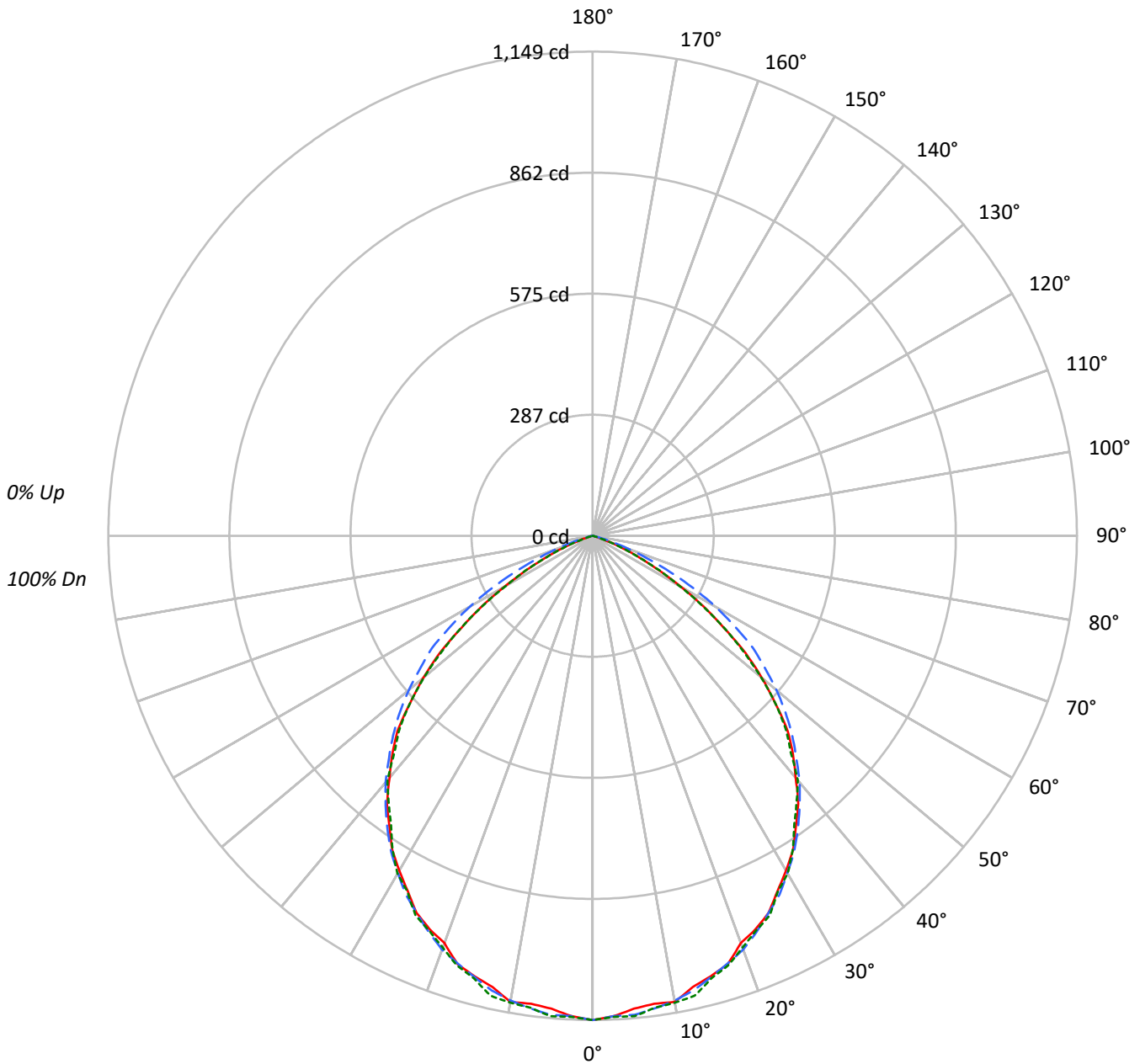
Lumens per Lamp: N/A
Luminaire Lumens: 2455.0 lumens
Efficiency: N/A
Efficacy: 77.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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°	110895	110895	110895
5°	109100	110524	110834
10°	110048	109725	110205
15°	108114	108274	108603
20°	105597	107281	106778
25°	105144	105144	105836
30°	102213	102937	103126
35°	99027	99993	98261
40°	94380	96231	95400
45°	89324	91330	88437
50°	78658	85518	78177
55°	63706	78257	63992
60°	46623	64898	45678
65°	28334	46210	27580
70°	11059	24883	10608
75°	1230	6710	1230
80°	945	945	945
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.5	4.4
10°-20°	307.0	12.5
20°-30°	455.5	18.6
30°-40°	527.8	21.5
40°-50°	506.0	20.6
50°-60°	372.0	15.2
60°-70°	160.7	6.5
70°-80°	17.4	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°	870.9	35.5
0°-40°	1398.7	57.0
0°-60°	2276.7	92.7
0°-90°	2455.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2455.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1149	1149	1149	1149	1149	
5°	1126	1138	1141	1143	1144	107
15°	1082	1089	1084	1086	1087	305
25°	988	986	988	989	994	452
35°	841	846	849	847	834	526
45°	655	656	669	660	648	498
55°	379	418	465	416	380	341
65°	124	155	202	154	121	128
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°	1149.3	1149.3	1149.3	1149.3	1149.3	1149.3	1149.3	1149.3	1149.3	1149.3	1149.3
2.5°	1141.1	1154.1	1155.8	1147.6	1144.3	1139.5	1150.9	1142.7	1146.0	1142.7	1141.1
5°	1126.4	1141.1	1142.7	1142.7	1139.5	1137.8	1142.7	1141.1	1139.5	1136.2	1141.1
7.5°	1119.9	1128.0	1136.2	1126.4	1131.3	1129.7	1141.1	1136.2	1134.5	1134.5	1131.3
10°	1123.2	1121.5	1128.0	1118.2	1121.5	1118.2	1128.0	1128.0	1124.8	1121.5	1119.9
12.5°	1097.0	1110.0	1110.0	1108.4	1105.2	1100.2	1110.0	1116.6	1106.8	1106.8	1105.2
15°	1082.3	1085.6	1087.2	1087.2	1085.6	1088.9	1093.7	1087.2	1088.9	1080.7	1083.9
17.5°	1066.0	1059.5	1064.3	1061.1	1062.7	1066.0	1072.5	1072.5	1062.7	1061.1	1064.3
20°	1028.4	1048.0	1049.7	1039.9	1041.5	1041.5	1053.0	1043.2	1049.7	1041.5	1044.8
22.5°	1010.5	1023.5	1025.2	1012.1	1020.3	1010.5	1021.9	1007.2	1023.5	1012.1	1017.0
25°	987.6	986.0	990.9	984.3	986.0	986.0	994.1	987.6	992.5	986.0	987.6
27.5°	950.1	963.2	961.5	955.0	958.2	956.6	973.0	955.0	964.8	956.6	959.9
30°	917.4	928.9	925.6	919.1	919.1	914.1	932.1	927.2	925.6	925.6	923.9
32.5°	884.8	886.4	883.2	884.8	886.4	879.9	894.6	888.0	886.4	888.0	889.7
35°	840.7	840.7	843.9	839.1	845.6	845.6	858.7	850.5	848.9	843.9	848.9
37.5°	801.5	796.7	798.3	798.3	801.5	804.8	811.3	808.0	808.0	803.2	806.4
40°	749.3	746.0	750.9	750.9	755.8	755.8	762.4	759.1	764.0	764.0	764.0
42.5°	703.6	703.6	700.3	705.2	706.9	705.2	716.7	715.0	716.7	713.4	715.0
45°	654.6	654.6	651.3	649.7	657.9	656.3	669.3	664.4	670.9	667.6	669.3
47.5°	587.7	595.8	590.9	595.8	605.6	607.3	615.4	612.2	618.7	613.8	620.4
50°	524.0	524.0	528.9	535.4	545.2	546.9	556.7	563.2	566.5	568.1	569.7
52.5°	457.1	455.4	460.4	468.5	476.7	483.2	493.0	502.8	509.3	519.1	514.2
55°	378.7	382.0	386.9	396.7	409.8	417.9	426.1	439.1	450.6	455.4	465.2
57.5°	311.8	308.5	311.8	324.8	339.6	346.1	357.5	370.6	386.9	396.7	400.0
60°	241.6	243.2	246.5	258.0	269.3	279.1	284.1	305.2	320.0	329.8	336.3
62.5°	178.0	181.2	184.5	194.3	205.7	213.9	222.0	240.0	253.0	262.8	269.3
65°	124.1	125.7	130.6	135.5	146.9	155.1	161.6	176.3	189.4	197.5	202.4
67.5°	76.7	78.3	81.6	88.2	96.3	102.8	109.4	119.2	130.6	138.7	140.4
70°	39.2	40.8	42.4	47.4	53.9	57.1	62.0	70.2	78.3	84.9	88.2
72.5°	13.1	13.1	14.7	18.0	21.2	24.5	26.1	34.3	40.8	44.1	45.7
75°	3.3	3.3	3.3	3.3	3.3	4.9	4.9	9.8	13.1	16.3	18.0
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°	1149.3	1149.3	1149.3	1149.3	1149.3	1149.3	1149.3	1149.3	1149.3	1149.3
2.5°	1149.3	1146.0	1144.3	1146.0	1146.0	1144.3	1149.3	1155.8	1163.9	1142.7
5°	1147.6	1144.3	1147.6	1137.8	1142.7	1139.5	1146.0	1144.3	1150.9	1144.3
7.5°	1142.7	1136.2	1137.8	1132.9	1139.5	1131.3	1136.2	1146.0	1139.5	1129.7
10°	1126.4	1123.2	1134.5	1118.2	1115.0	1121.5	1134.5	1124.8	1121.5	1124.8
12.5°	1110.0	1110.0	1115.0	1101.9	1103.5	1106.8	1113.3	1106.8	1110.0	1118.2
15°	1092.1	1088.9	1097.0	1087.2	1085.6	1082.3	1088.9	1088.9	1092.1	1087.2
17.5°	1070.9	1066.0	1066.0	1062.7	1061.1	1069.3	1072.5	1074.1	1075.8	1069.3
20°	1044.8	1043.2	1048.0	1043.2	1044.8	1046.4	1046.4	1043.2	1057.8	1039.9
22.5°	1017.0	1021.9	1015.4	1012.1	1015.4	1018.7	1018.7	1020.3	1017.0	1013.7
25°	989.3	992.5	994.1	984.3	989.3	984.3	995.8	997.4	990.9	994.1
27.5°	964.8	959.9	958.2	951.7	955.0	953.4	955.0	955.0	964.8	951.7
30°	927.2	922.3	923.9	919.1	920.7	919.1	920.7	920.7	927.2	925.6
32.5°	891.3	886.4	888.0	883.2	883.2	884.8	881.5	881.5	886.4	883.2
35°	857.0	845.6	847.2	845.6	847.2	840.7	840.7	839.1	842.3	834.2
37.5°	808.0	803.2	801.5	799.9	801.5	798.3	801.5	796.7	801.5	795.0
40°	764.0	760.7	762.4	752.6	752.6	754.2	750.9	749.3	750.9	757.4
42.5°	719.9	713.4	710.1	706.9	708.5	703.6	701.9	698.7	701.9	695.4
45°	667.6	667.6	666.0	657.9	659.5	659.5	653.0	646.5	648.1	648.1
47.5°	620.4	617.1	615.4	607.3	605.6	604.0	597.4	592.6	592.6	587.7
50°	568.1	564.8	559.9	551.8	548.5	538.7	533.8	527.3	520.8	520.8
52.5°	519.1	507.7	501.1	488.1	483.2	478.3	465.2	460.4	455.4	450.6
55°	460.4	450.6	437.5	422.8	416.3	408.1	395.0	385.2	378.7	380.4
57.5°	403.2	386.9	373.9	354.3	346.1	341.1	328.1	315.0	308.5	308.5
60°	333.0	320.0	303.6	285.7	279.1	271.0	254.6	246.5	241.6	236.7
62.5°	266.1	256.3	241.6	218.7	213.9	205.7	194.3	184.5	179.6	179.6
65°	199.1	189.4	176.3	160.0	153.5	146.9	137.1	127.3	122.4	120.8
67.5°	140.4	128.9	117.6	104.5	99.6	96.3	86.5	80.0	76.7	75.1
70°	84.9	78.3	70.2	60.4	55.5	52.2	45.7	40.8	39.2	37.6
72.5°	44.1	39.2	32.6	26.1	22.8	19.6	16.3	13.1	11.5	11.5
75°	16.3	13.1	8.2	4.9	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)