

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: P840166

Luminaire Tested: **LD4C30D010 EU4309050 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: P840166
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: LD4C30D010 EU4309050 4LBCSSQMMS
Description: 4 INCH 3000 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

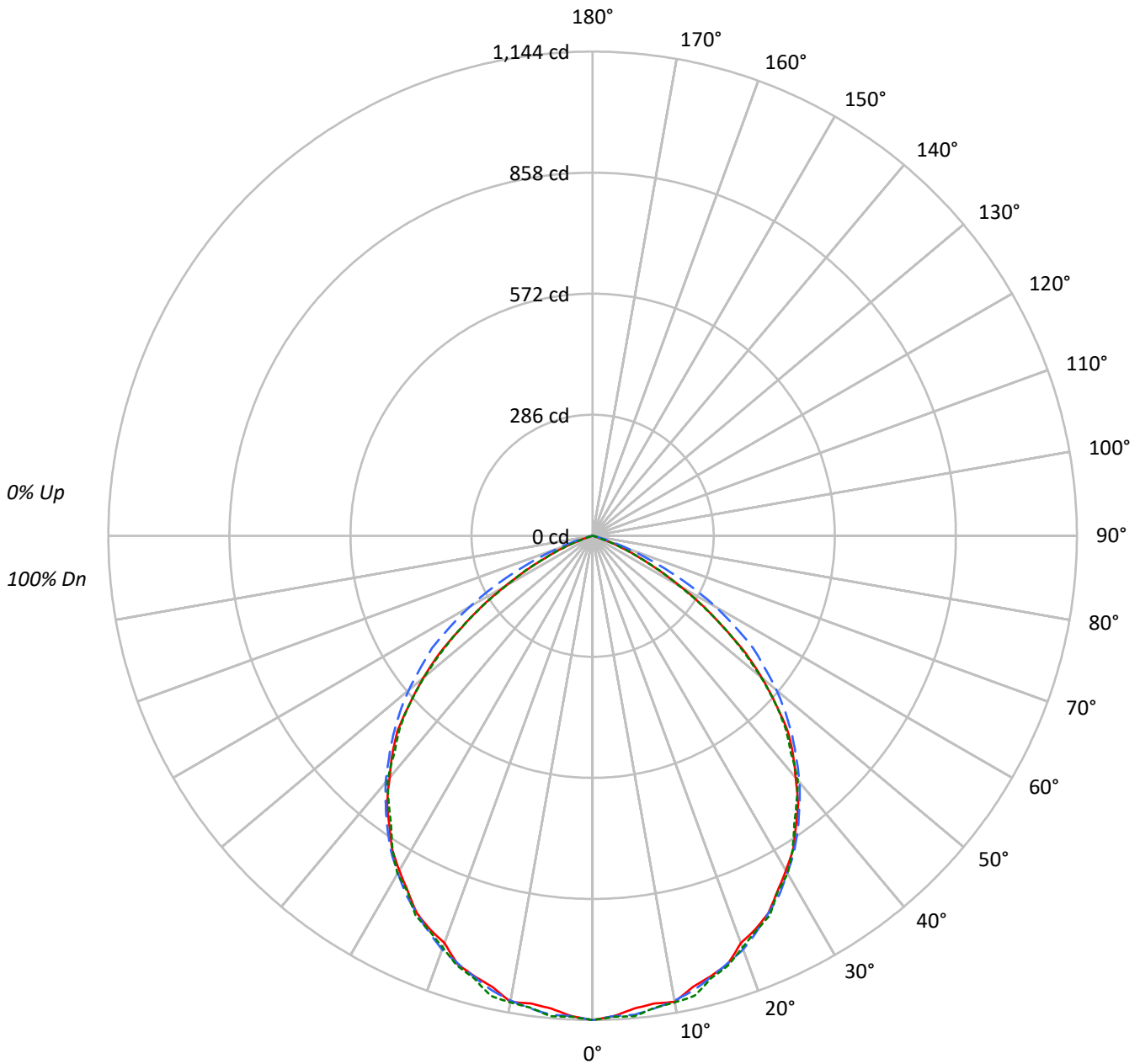
Lumens per Lamp: N/A
Luminaire Lumens: 2444.0 lumens
Efficiency: N/A
Efficacy: 77.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 31.6
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°	110393	110393	110393
5°	108616	110030	110340
10°	109549	109235	109705
15°	107634	107794	108114
20°	105125	106799	106296
25°	104675	104675	105367
30°	101756	102480	102670
35°	98579	99545	97814
40°	93952	95791	94972
45°	88928	90921	88041
50°	78312	85142	77817
55°	63420	77904	63706
60°	46411	64609	45485
65°	28197	46005	27466
70°	11002	24770	10551
75°	1193	6673	1193
80°	945	945	945
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.0	4.4
10°-20°	305.6	12.5
20°-30°	453.4	18.6
30°-40°	525.4	21.5
40°-50°	503.7	20.6
50°-60°	370.4	15.2
60°-70°	160.0	6.5
70°-80°	17.3	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°	867.0	35.5
0°-40°	1392.4	57.0
0°-60°	2266.5	92.7
0°-90°	2444.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2444.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1144	1144	1144	1144	1144	
5°	1121	1133	1136	1138	1139	107
15°	1078	1084	1079	1081	1082	304
25°	983	982	983	985	990	450
35°	837	842	845	843	830	523
45°	652	653	666	657	645	495
55°	377	416	463	414	379	339
65°	124	154	202	153	120	127
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°	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1
2.5°	1136.0	1149.0	1150.6	1142.5	1139.2	1134.4	1145.7	1137.6	1140.9	1137.6	1136.0
5°	1121.4	1136.0	1137.6	1137.6	1134.4	1132.7	1137.6	1136.0	1134.4	1131.1	1136.0
7.5°	1114.9	1123.0	1131.1	1121.4	1126.2	1124.6	1136.0	1131.1	1129.5	1129.5	1126.2
10°	1118.1	1116.5	1123.0	1113.2	1116.5	1113.2	1123.0	1123.0	1119.7	1116.5	1114.9
12.5°	1092.1	1105.1	1105.1	1103.5	1100.2	1095.3	1105.1	1111.6	1101.8	1101.8	1100.2
15°	1077.5	1080.7	1082.3	1082.3	1080.7	1084.0	1088.8	1082.3	1084.0	1075.8	1079.1
17.5°	1061.2	1054.7	1059.6	1056.3	1058.0	1061.2	1067.7	1067.7	1058.0	1056.3	1059.6
20°	1023.8	1043.3	1045.0	1035.2	1036.8	1036.8	1048.2	1038.5	1045.0	1036.8	1040.1
22.5°	1005.9	1018.9	1020.6	1007.6	1015.7	1005.9	1017.3	1002.7	1018.9	1007.6	1012.4
25°	983.2	981.6	986.4	979.9	981.6	981.6	989.7	983.2	988.1	981.6	983.2
27.5°	945.9	958.9	957.2	950.7	953.9	952.4	968.6	950.7	960.4	952.4	955.6
30°	913.3	924.7	921.5	915.0	915.0	910.1	928.0	923.0	921.5	921.5	919.8
32.5°	880.8	882.5	879.2	880.8	882.5	876.0	890.6	884.1	882.5	884.1	885.7
35°	836.9	836.9	840.2	835.3	841.8	841.8	854.8	846.7	845.1	840.2	845.1
37.5°	797.9	793.1	794.7	794.7	797.9	801.2	807.7	804.4	804.4	799.6	802.8
40°	745.9	742.7	747.5	747.5	752.4	752.4	758.9	755.7	760.5	760.5	760.5
42.5°	700.5	700.5	697.2	702.0	703.7	702.0	713.5	711.8	713.5	710.2	711.8
45°	651.7	651.7	648.4	646.8	654.9	653.3	666.3	661.4	667.9	664.7	666.3
47.5°	585.0	593.2	588.3	593.2	602.9	604.6	612.7	609.4	615.9	611.1	617.6
50°	521.7	521.7	526.5	533.0	542.8	544.4	554.2	560.7	563.9	565.5	567.2
52.5°	455.1	453.4	458.3	466.4	474.6	481.1	490.8	500.5	507.0	516.8	511.9
55°	377.0	380.3	385.2	394.9	407.9	416.0	424.2	437.2	448.6	453.4	463.1
57.5°	310.4	307.1	310.4	323.4	338.0	344.5	355.9	368.9	385.2	394.9	398.2
60°	240.5	242.1	245.4	256.8	268.1	277.9	282.8	303.9	318.5	328.3	334.8
62.5°	177.2	180.4	183.7	193.4	204.8	212.9	221.0	238.9	251.9	261.6	268.1
65°	123.5	125.1	130.0	134.9	146.3	154.4	160.9	175.5	188.5	196.7	201.5
67.5°	76.4	78.0	81.2	87.8	95.9	102.4	108.9	118.6	130.0	138.1	139.8
70°	39.0	40.6	42.2	47.1	53.6	56.9	61.7	69.9	78.0	84.5	87.8
72.5°	13.0	13.0	14.7	17.9	21.2	24.4	26.0	34.1	40.6	43.9	45.5
75°	3.2	3.2	3.2	3.2	3.2	4.9	4.9	9.7	13.0	16.2	17.9
77.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	3.2	3.2
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°	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1
2.5°	1144.1	1140.9	1139.2	1140.9	1140.9	1139.2	1144.1	1150.6	1158.7	1137.6
5°	1142.5	1139.2	1142.5	1132.7	1137.6	1134.4	1140.9	1139.2	1145.7	1139.2
7.5°	1137.6	1131.1	1132.7	1127.9	1134.4	1126.2	1131.1	1140.9	1134.4	1124.6
10°	1121.4	1118.1	1129.5	1113.2	1110.0	1116.5	1129.5	1119.7	1116.5	1119.7
12.5°	1105.1	1105.1	1110.0	1097.0	1098.6	1101.8	1108.3	1101.8	1105.1	1113.2
15°	1087.2	1084.0	1092.1	1082.3	1080.7	1077.5	1084.0	1084.0	1087.2	1082.3
17.5°	1066.1	1061.2	1061.2	1058.0	1056.3	1064.5	1067.7	1069.3	1071.0	1064.5
20°	1040.1	1038.5	1043.3	1038.5	1040.1	1041.7	1041.7	1038.5	1053.1	1035.2
22.5°	1012.4	1017.3	1010.8	1007.6	1010.8	1014.1	1014.1	1015.7	1012.4	1009.2
25°	984.8	988.1	989.7	979.9	984.8	979.9	991.3	992.9	986.4	989.7
27.5°	960.4	955.6	953.9	947.4	950.7	949.1	950.7	950.7	960.4	947.4
30°	923.0	918.2	919.8	915.0	916.6	915.0	916.6	916.6	923.0	921.5
32.5°	887.3	882.5	884.1	879.2	879.2	880.8	877.6	877.6	882.5	879.2
35°	853.2	841.8	843.4	841.8	843.4	836.9	836.9	835.3	838.6	830.4
37.5°	804.4	799.6	797.9	796.3	797.9	794.7	797.9	793.1	797.9	791.4
40°	760.5	757.3	758.9	749.2	749.2	750.8	747.5	745.9	747.5	754.0
42.5°	716.7	710.2	707.0	703.7	705.3	700.5	698.8	695.6	698.8	692.3
45°	664.7	664.7	663.1	654.9	656.6	656.6	650.1	643.6	645.2	645.2
47.5°	617.6	614.3	612.7	604.6	602.9	601.3	594.8	589.9	589.9	585.0
50°	565.5	562.3	557.4	549.3	546.0	536.3	531.4	524.9	518.4	518.4
52.5°	516.8	505.4	498.9	485.9	481.1	476.1	463.1	458.3	453.4	448.6
55°	458.3	448.6	435.6	420.9	414.4	406.3	393.3	383.5	377.0	378.7
57.5°	401.4	385.2	372.2	352.7	344.5	339.6	326.6	313.6	307.1	307.1
60°	331.5	318.5	302.3	284.4	277.9	269.8	253.5	245.4	240.5	235.7
62.5°	264.9	255.1	240.5	217.8	212.9	204.8	193.4	183.7	178.8	178.8
65°	198.3	188.5	175.5	159.3	152.8	146.3	136.5	126.8	121.9	120.3
67.5°	139.8	128.4	117.0	104.0	99.1	95.9	86.1	79.6	76.4	74.7
70°	84.5	78.0	69.9	60.1	55.2	52.0	45.5	40.6	39.0	37.4
72.5°	43.9	39.0	32.5	26.0	22.7	19.5	16.2	13.0	11.4	11.4
75°	16.2	13.0	8.2	4.9	3.2	3.2	3.2	3.2	3.2	3.2
77.5°	3.2	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)