

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: P840088

Luminaire Tested: **LD4C05D010 EU4059027 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: P840088
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: LD4C05D010 EU4059027 4LBCSSQMMS
Description: 4 INCH 500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS AND 4LBCSSQ TRIM WITH MMS FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

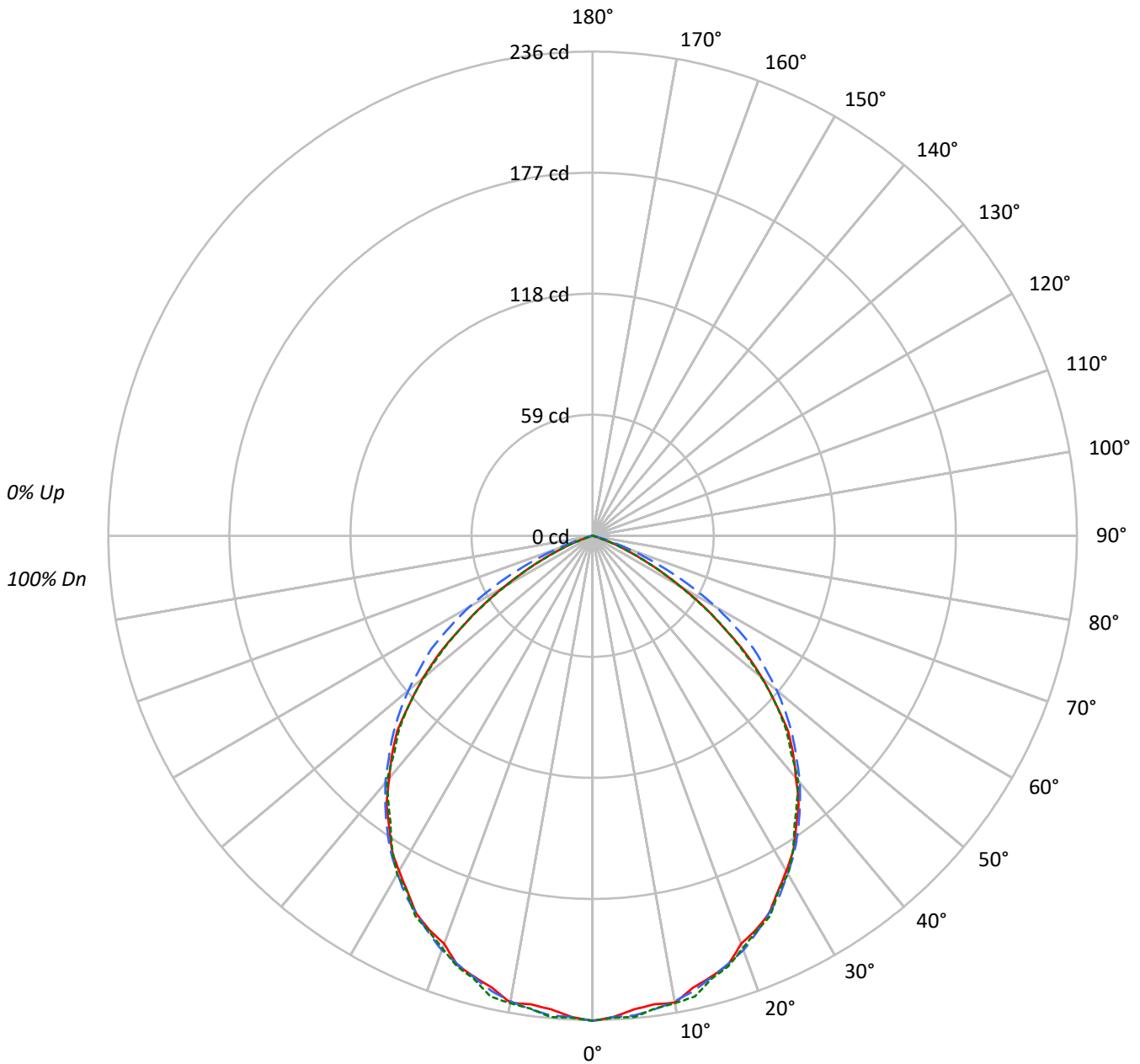
Lumens per Lamp: N/A
Luminaire Lumens: 505.0 lumens
Efficiency: N/A
Efficacy: 70.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 7.2
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°	22810	22810	22810
5°	22442	22732	22800
10°	22633	22574	22672
15°	22236	22276	22336
20°	21727	22066	21964
25°	21633	21633	21772
30°	21024	21180	21214
35°	20366	20566	20213
40°	19410	19788	19624
45°	18381	18790	18190
50°	16182	17593	16077
55°	13105	16099	13155
60°	9591	13354	9398
65°	5822	9498	5685
70°	2285	5106	2172
75°	261	1379	261
80°	167	167	167
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.3	4.4
10°-20°	63.1	12.5
20°-30°	93.7	18.6
30°-40°	108.6	21.5
40°-50°	104.1	20.6
50°-60°	76.5	15.2
60°-70°	33.1	6.5
70°-80°	3.6	0.7
80°-90°	0.0	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°	179.2	35.5
0°-40°	287.7	57.0
0°-60°	468.3	92.7
0°-90°	505.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	505.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	236	236	236	236	236	
5°	232	234	235	235	235	22
15°	223	224	223	223	224	63
25°	203	203	203	204	204	93
35°	173	174	175	174	172	108
45°	135	135	138	136	133	102
55°	78	86	96	86	78	70
65°	26	32	42	32	25	26
75°	1	1	4	1	1	2
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°	236.4	236.4	236.4	236.4	236.4	236.4	236.4	236.4	236.4	236.4	236.4
2.5°	234.7	237.4	237.7	236.1	235.4	234.4	236.7	235.1	235.7	235.1	234.7
5°	231.7	234.7	235.1	235.1	234.4	234.0	235.1	234.7	234.4	233.7	234.7
7.5°	230.4	232.0	233.7	231.7	232.7	232.4	234.7	233.7	233.4	233.4	232.7
10°	231.0	230.7	232.0	230.0	230.7	230.0	232.0	232.0	231.4	230.7	230.4
12.5°	225.7	228.3	228.3	228.0	227.3	226.3	228.3	229.7	227.7	227.7	227.3
15°	222.6	223.3	223.6	223.6	223.3	224.0	225.0	223.6	224.0	222.3	223.0
17.5°	219.3	217.9	218.9	218.3	218.6	219.3	220.6	220.6	218.6	218.3	218.9
20°	211.6	215.6	215.9	213.9	214.2	214.2	216.6	214.6	215.9	214.2	214.9
22.5°	207.9	210.5	210.9	208.2	209.9	207.9	210.2	207.2	210.5	208.2	209.2
25°	203.2	202.8	203.8	202.5	202.8	202.8	204.5	203.2	204.2	202.8	203.2
27.5°	195.4	198.1	197.8	196.4	197.1	196.8	200.1	196.4	198.5	196.8	197.5
30°	188.7	191.1	190.4	189.1	189.1	188.0	191.7	190.7	190.4	190.4	190.1
32.5°	182.0	182.3	181.7	182.0	182.3	181.0	184.0	182.7	182.3	182.7	183.0
35°	172.9	172.9	173.6	172.6	173.9	173.9	176.6	174.9	174.6	173.6	174.6
37.5°	164.9	163.9	164.2	164.2	164.9	165.5	166.9	166.2	166.2	165.2	165.9
40°	154.1	153.5	154.5	154.5	155.5	155.5	156.8	156.1	157.1	157.1	157.1
42.5°	144.7	144.7	144.1	145.1	145.4	145.1	147.4	147.1	147.4	146.7	147.1
45°	134.7	134.7	134.0	133.7	135.3	135.0	137.7	136.7	138.0	137.3	137.7
47.5°	120.9	122.6	121.6	122.6	124.6	124.9	126.6	125.9	127.3	126.3	127.6
50°	107.8	107.8	108.8	110.1	112.2	112.5	114.5	115.9	116.5	116.9	117.2
52.5°	94.0	93.7	94.7	96.4	98.1	99.4	101.4	103.4	104.8	106.8	105.8
55°	77.9	78.6	79.6	81.6	84.3	86.0	87.6	90.3	92.7	93.7	95.7
57.5°	64.1	63.5	64.1	66.8	69.8	71.2	73.5	76.2	79.6	81.6	82.3
60°	49.7	50.0	50.7	53.1	55.4	57.4	58.4	62.8	65.8	67.8	69.2
62.5°	36.6	37.3	38.0	40.0	42.3	44.0	45.7	49.4	52.0	54.1	55.4
65°	25.5	25.9	26.9	27.9	30.2	31.9	33.2	36.3	39.0	40.6	41.6
67.5°	15.8	16.1	16.8	18.1	19.8	21.2	22.5	24.5	26.9	28.5	28.9
70°	8.1	8.4	8.7	9.7	11.1	11.8	12.8	14.4	16.1	17.5	18.1
72.5°	2.7	2.7	3.0	3.7	4.4	5.0	5.4	7.1	8.4	9.1	9.4
75°	0.7	0.7	0.7	0.7	0.7	1.0	1.0	2.0	2.7	3.4	3.7
77.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.7	0.7
80°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
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°	236.4	236.4	236.4	236.4	236.4	236.4	236.4	236.4	236.4	236.4
2.5°	236.4	235.7	235.4	235.7	235.7	235.4	236.4	237.7	239.4	235.1
5°	236.1	235.4	236.1	234.0	235.1	234.4	235.7	235.4	236.7	235.4
7.5°	235.1	233.7	234.0	233.0	234.4	232.7	233.7	235.7	234.4	232.4
10°	231.7	231.0	233.4	230.0	229.4	230.7	233.4	231.4	230.7	231.4
12.5°	228.3	228.3	229.4	226.7	227.0	227.7	229.0	227.7	228.3	230.0
15°	224.7	224.0	225.7	223.6	223.3	222.6	224.0	224.0	224.7	223.6
17.5°	220.3	219.3	219.3	218.6	218.3	220.0	220.6	221.0	221.3	220.0
20°	214.9	214.6	215.6	214.6	214.9	215.3	215.3	214.6	217.6	213.9
22.5°	209.2	210.2	208.9	208.2	208.9	209.5	209.5	209.9	209.2	208.5
25°	203.5	204.2	204.5	202.5	203.5	202.5	204.8	205.2	203.8	204.5
27.5°	198.5	197.5	197.1	195.8	196.4	196.1	196.4	196.4	198.5	195.8
30°	190.7	189.7	190.1	189.1	189.4	189.1	189.4	189.4	190.7	190.4
32.5°	183.3	182.3	182.7	181.7	181.7	182.0	181.3	181.3	182.3	181.7
35°	176.3	173.9	174.3	173.9	174.3	172.9	172.9	172.6	173.3	171.6
37.5°	166.2	165.2	164.9	164.5	164.9	164.2	164.9	163.9	164.9	163.5
40°	157.1	156.5	156.8	154.8	154.8	155.1	154.5	154.1	154.5	155.8
42.5°	148.1	146.7	146.1	145.4	145.7	144.7	144.4	143.7	144.4	143.0
45°	137.3	137.3	137.0	135.3	135.7	135.7	134.3	133.0	133.3	133.3
47.5°	127.6	126.9	126.6	124.9	124.6	124.3	122.9	121.9	121.9	120.9
50°	116.9	116.2	115.2	113.5	112.8	110.8	109.8	108.5	107.1	107.1
52.5°	106.8	104.4	103.1	100.4	99.4	98.4	95.7	94.7	93.7	92.7
55°	94.7	92.7	90.0	87.0	85.6	83.9	81.3	79.2	77.9	78.2
57.5°	82.9	79.6	76.9	72.9	71.2	70.2	67.5	64.8	63.5	63.5
60°	68.5	65.8	62.5	58.8	57.4	55.7	52.4	50.7	49.7	48.7
62.5°	54.7	52.7	49.7	45.0	44.0	42.3	40.0	38.0	36.9	36.9
65°	41.0	39.0	36.3	32.9	31.6	30.2	28.2	26.2	25.2	24.9
67.5°	28.9	26.5	24.2	21.5	20.5	19.8	17.8	16.5	15.8	15.4
70°	17.5	16.1	14.4	12.4	11.4	10.7	9.4	8.4	8.1	7.7
72.5°	9.1	8.1	6.7	5.4	4.7	4.0	3.4	2.7	2.4	2.4
75°	3.4	2.7	1.7	1.0	0.7	0.7	0.7	0.7	0.7	0.7
77.5°	0.7	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
80°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
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)