

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: P840094

Luminaire Tested: **LD4C05D010 EU4059040 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: P840094
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 EU4059040 4LBCSSQMMS
Description: 4 INCH 500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS AND 4LBCSSQ TRIM WITH MMS FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

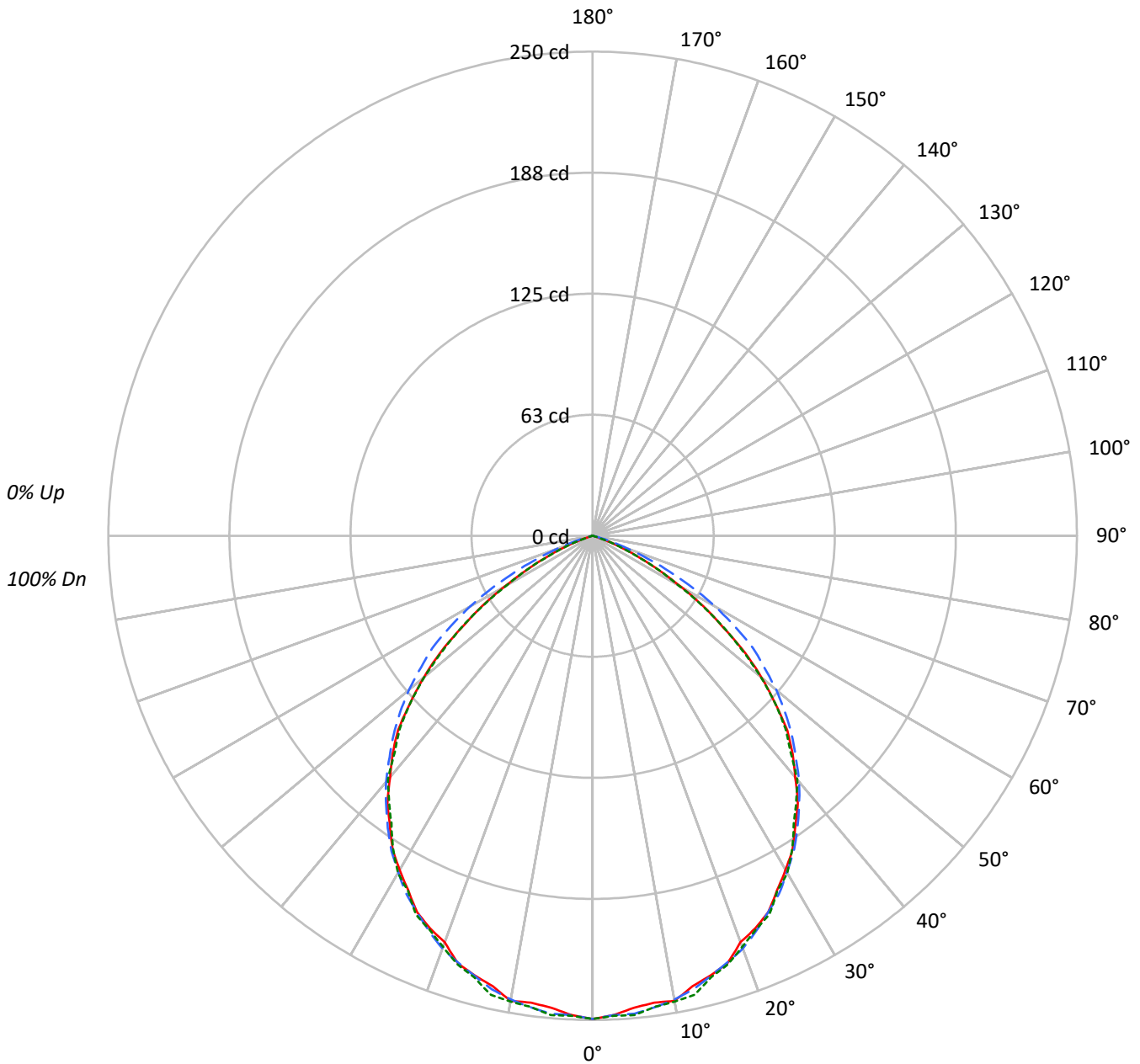
Lumens per Lamp: N/A
Luminaire Lumens: 533.0 lumens
Efficiency: N/A
Efficacy: 74.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 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									
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°	24074	24074	24074
5°	23691	23992	24059
10°	23887	23818	23926
15°	23475	23505	23575
20°	22929	23288	23185
25°	22826	22826	22975
30°	22194	22350	22395
35°	21497	21709	21332
40°	20493	20896	20707
45°	19390	19827	19199
50°	17083	18569	16977
55°	13828	16991	13895
60°	10112	14087	9919
65°	6142	10023	5982
70°	2398	5388	2313
75°	261	1454	261
80°	222	222	222
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.6	4.4
10°-20°	66.6	12.5
20°-30°	98.9	18.6
30°-40°	114.6	21.5
40°-50°	109.9	20.6
50°-60°	80.8	15.2
60°-70°	34.9	6.5
70°-80°	3.8	0.7
80°-90°	0.1	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°	189.1	35.5
0°-40°	303.7	57.0
0°-60°	494.3	92.7
0°-90°	533.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	533.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	250	250	250	250	250	
5°	245	247	248	248	248	23
15°	235	236	235	236	236	66
25°	214	214	214	215	216	98
35°	182	184	184	184	181	114
45°	142	142	145	143	141	108
55°	82	91	101	90	83	74
65°	27	34	44	33	26	28
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°	249.5	249.5	249.5	249.5	249.5	249.5	249.5	249.5	249.5	249.5	249.5
2.5°	247.7	250.6	250.9	249.2	248.4	247.4	249.9	248.1	248.8	248.1	247.7
5°	244.6	247.7	248.1	248.1	247.4	247.0	248.1	247.7	247.4	246.7	247.7
7.5°	243.1	244.9	246.7	244.6	245.6	245.3	247.7	246.7	246.3	246.3	245.6
10°	243.8	243.5	244.9	242.8	243.5	242.8	244.9	244.9	244.2	243.5	243.1
12.5°	238.2	241.0	241.0	240.6	239.9	238.9	241.0	242.4	240.3	240.3	239.9
15°	235.0	235.7	236.0	236.0	235.7	236.4	237.5	236.0	236.4	234.6	235.3
17.5°	231.4	230.0	231.1	230.4	230.7	231.4	232.9	232.9	230.7	230.4	231.1
20°	223.3	227.5	227.9	225.8	226.1	226.1	228.6	226.5	227.9	226.1	226.8
22.5°	219.4	222.2	222.6	219.7	221.5	219.4	221.9	218.7	222.2	219.7	220.8
25°	214.4	214.1	215.1	213.7	214.1	214.1	215.8	214.4	215.5	214.1	214.4
27.5°	206.3	209.1	208.8	207.3	208.0	207.7	211.2	207.3	209.5	207.7	208.4
30°	199.2	201.7	201.0	199.5	199.5	198.5	202.4	201.3	201.0	201.0	200.6
32.5°	192.1	192.5	191.7	192.1	192.5	191.0	194.2	192.8	192.5	192.8	193.2
35°	182.5	182.5	183.2	182.2	183.6	183.6	186.4	184.6	184.3	183.2	184.3
37.5°	174.0	173.0	173.3	173.3	174.0	174.7	176.1	175.4	175.4	174.4	175.1
40°	162.7	162.0	163.0	163.0	164.1	164.1	165.5	164.8	165.9	165.9	165.9
42.5°	152.8	152.8	152.1	153.1	153.5	153.1	155.6	155.2	155.6	154.9	155.2
45°	142.1	142.1	141.4	141.1	142.8	142.5	145.3	144.2	145.7	145.0	145.3
47.5°	127.6	129.4	128.3	129.4	131.5	131.8	133.6	132.9	134.3	133.3	134.7
50°	113.8	113.8	114.8	116.2	118.4	118.7	120.9	122.3	123.0	123.3	123.7
52.5°	99.2	98.9	100.0	101.7	103.5	104.9	107.0	109.2	110.6	112.7	111.6
55°	82.2	82.9	84.0	86.1	89.0	90.7	92.5	95.3	97.8	98.9	101.0
57.5°	67.7	67.0	67.7	70.5	73.7	75.1	77.6	80.5	84.0	86.1	86.8
60°	52.4	52.8	53.5	56.0	58.5	60.6	61.7	66.3	69.5	71.6	73.0
62.5°	38.6	39.3	40.1	42.2	44.7	46.4	48.2	52.1	54.9	57.1	58.5
65°	26.9	27.3	28.4	29.4	31.9	33.7	35.1	38.3	41.1	42.9	43.9
67.5°	16.7	17.0	17.7	19.1	20.9	22.3	23.7	25.9	28.4	30.1	30.5
70°	8.5	8.9	9.2	10.3	11.7	12.4	13.5	15.2	17.0	18.4	19.1
72.5°	2.8	2.8	3.2	3.9	4.6	5.3	5.7	7.4	8.9	9.6	9.9
75°	0.7	0.7	0.7	0.7	0.7	1.1	1.1	2.1	2.8	3.5	3.9
77.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.7	0.7
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
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°	249.5	249.5	249.5	249.5	249.5	249.5	249.5	249.5	249.5	249.5
2.5°	249.5	248.8	248.4	248.8	248.8	248.4	249.5	250.9	252.7	248.1
5°	249.2	248.4	249.2	247.0	248.1	247.4	248.8	248.4	249.9	248.4
7.5°	248.1	246.7	247.0	246.0	247.4	245.6	246.7	248.8	247.4	245.3
10°	244.6	243.8	246.3	242.8	242.1	243.5	246.3	244.2	243.5	244.2
12.5°	241.0	241.0	242.1	239.2	239.6	240.3	241.7	240.3	241.0	242.8
15°	237.1	236.4	238.2	236.0	235.7	235.0	236.4	236.4	237.1	236.0
17.5°	232.5	231.4	231.4	230.7	230.4	232.1	232.9	233.2	233.6	232.1
20°	226.8	226.5	227.5	226.5	226.8	227.2	227.2	226.5	229.7	225.8
22.5°	220.8	221.9	220.4	219.7	220.4	221.2	221.2	221.5	220.8	220.1
25°	214.8	215.5	215.8	213.7	214.8	213.7	216.2	216.5	215.1	215.8
27.5°	209.5	208.4	208.0	206.6	207.3	207.0	207.3	207.3	209.5	206.6
30°	201.3	200.2	200.6	199.5	199.9	199.5	199.9	199.9	201.3	201.0
32.5°	193.5	192.5	192.8	191.7	191.7	192.1	191.4	191.4	192.5	191.7
35°	186.1	183.6	183.9	183.6	183.9	182.5	182.5	182.2	182.9	181.1
37.5°	175.4	174.4	174.0	173.7	174.0	173.3	174.0	173.0	174.0	172.6
40°	165.9	165.2	165.5	163.4	163.4	163.7	163.0	162.7	163.0	164.4
42.5°	156.3	154.9	154.2	153.5	153.8	152.8	152.4	151.7	152.4	151.0
45°	145.0	145.0	144.6	142.8	143.2	143.2	141.8	140.4	140.7	140.7
47.5°	134.7	134.0	133.6	131.8	131.5	131.1	129.7	128.7	128.7	127.6
50°	123.3	122.6	121.6	119.8	119.1	117.0	115.9	114.5	113.1	113.1
52.5°	112.7	110.2	108.8	106.0	104.9	103.8	101.0	100.0	98.9	97.8
55°	100.0	97.8	95.0	91.8	90.4	88.6	85.8	83.6	82.2	82.6
57.5°	87.5	84.0	81.2	76.9	75.1	74.1	71.2	68.4	67.0	67.0
60°	72.3	69.5	65.9	62.0	60.6	58.8	55.3	53.5	52.4	51.4
62.5°	57.8	55.6	52.4	47.5	46.4	44.7	42.2	40.1	39.0	39.0
65°	43.2	41.1	38.3	34.7	33.3	31.9	29.8	27.6	26.6	26.2
67.5°	30.5	28.0	25.5	22.7	21.6	20.9	18.8	17.4	16.7	16.3
70°	18.4	17.0	15.2	13.1	12.0	11.3	9.9	8.9	8.5	8.2
72.5°	9.6	8.5	7.1	5.7	5.0	4.3	3.5	2.8	2.5	2.5
75°	3.5	2.8	1.8	1.1	0.7	0.7	0.7	0.7	0.7	0.7
77.5°	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
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)