

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: P840148

Luminaire Tested: **LD4C25D010 EU4259027 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: P840148
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 EU4259027 4LBCSSQMMS
Description: 4 INCH 2500 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

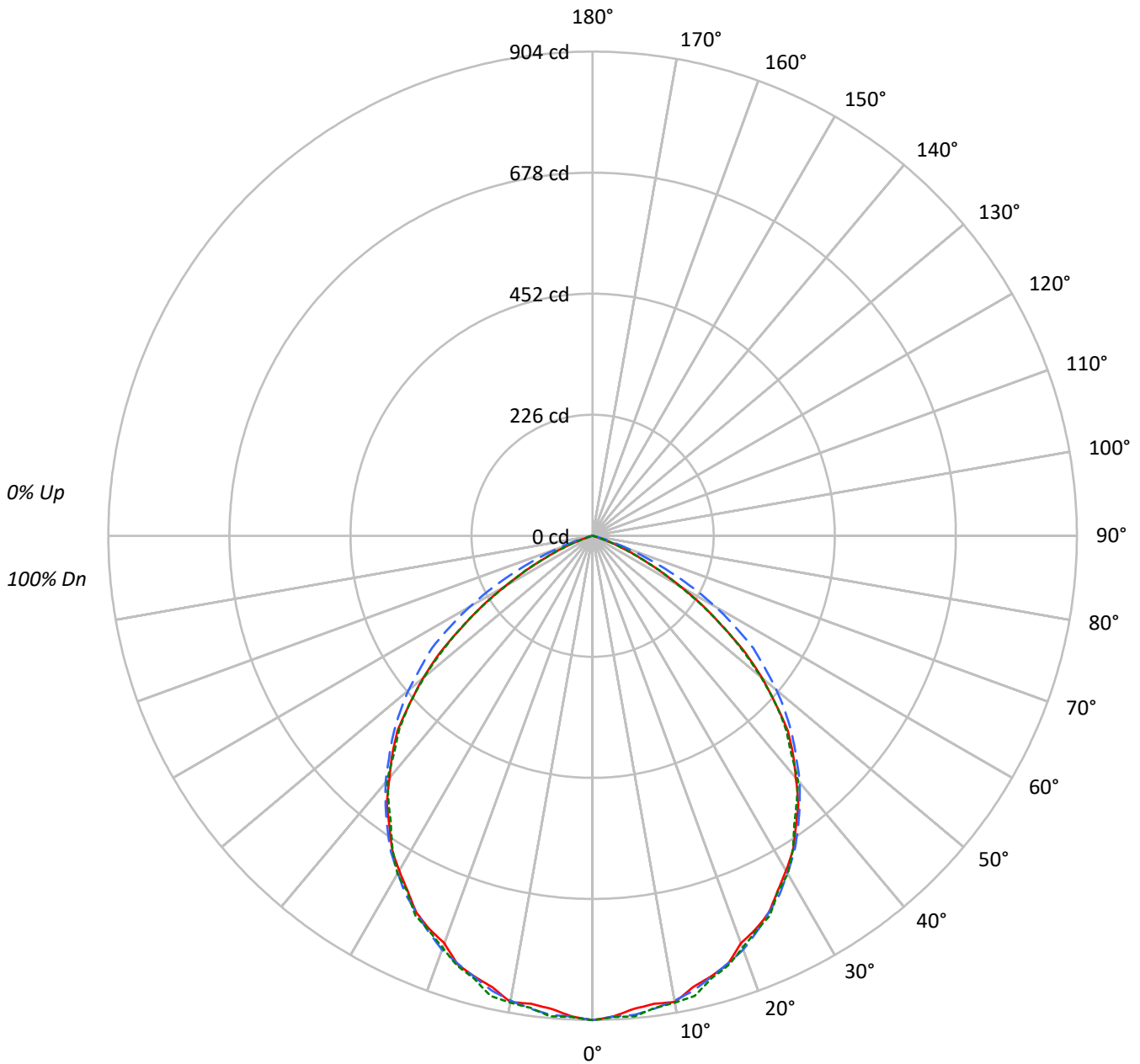
Lumens per Lamp: N/A
Luminaire Lumens: 1932.0 lumens
Efficiency: N/A
Efficacy: 61.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 31.5
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°	87265	87265	87265
5°	85864	86978	87230
10°	86602	86347	86720
15°	85089	85208	85468
20°	83100	84425	84034
25°	82744	82744	83297
30°	80442	81010	81155
35°	77931	78685	77330
40°	74277	75726	75083
45°	70288	71871	69593
50°	61905	67309	61515
55°	50131	61587	50349
60°	36685	51062	35952
65°	22283	36370	21712
70°	8689	19579	8351
75°	969	5294	969
80°	722	722	722
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.4	4.4
10°-20°	241.6	12.5
20°-30°	358.4	18.6
30°-40°	415.3	21.5
40°-50°	398.2	20.6
50°-60°	292.8	15.2
60°-70°	126.5	6.5
70°-80°	13.7	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°	685.4	35.5
0°-40°	1100.7	57.0
0°-60°	1791.7	92.7
0°-90°	1932.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1932.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	904	904	904	904	904	
5°	886	895	898	899	901	85
15°	852	857	853	854	856	240
25°	777	776	777	778	782	356
35°	662	666	668	667	656	414
45°	515	516	527	519	510	392
55°	298	329	366	328	299	268
65°	98	122	159	121	95	100
75°	3	4	14	3	3	8
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°	904.4	904.4	904.4	904.4	904.4	904.4	904.4	904.4	904.4	904.4	904.4
2.5°	898.0	908.3	909.6	903.1	900.6	896.7	905.7	899.3	901.9	899.3	898.0
5°	886.5	898.0	899.3	899.3	896.7	895.4	899.3	898.0	896.7	894.2	898.0
7.5°	881.3	887.7	894.2	886.5	890.3	889.0	898.0	894.2	892.8	892.8	890.3
10°	883.9	882.6	887.7	880.0	882.6	880.0	887.7	887.7	885.1	882.6	881.3
12.5°	863.3	873.6	873.6	872.3	869.7	865.9	873.6	878.7	871.0	871.0	869.7
15°	851.8	854.3	855.6	855.6	854.3	856.9	860.7	855.6	856.9	850.4	853.0
17.5°	838.9	833.8	837.6	835.0	836.3	838.9	844.0	844.0	836.3	835.0	837.6
20°	809.3	824.8	826.1	818.4	819.6	819.6	828.6	820.9	826.1	819.6	822.2
22.5°	795.2	805.5	806.8	796.5	802.9	795.2	804.2	792.6	805.5	796.5	800.3
25°	777.2	776.0	779.8	774.6	776.0	776.0	782.4	777.2	781.1	776.0	777.2
27.5°	747.7	758.0	756.7	751.5	754.1	752.8	765.7	751.5	759.2	752.8	755.4
30°	722.0	731.0	728.4	723.3	723.3	719.4	733.6	729.7	728.4	728.4	727.1
32.5°	696.3	697.6	695.0	696.3	697.6	692.5	704.0	698.9	697.6	698.9	700.2
35°	661.6	661.6	664.2	660.3	665.5	665.5	675.7	669.3	668.0	664.2	668.0
37.5°	630.8	626.9	628.2	628.2	630.8	633.3	638.5	635.9	635.9	632.1	634.6
40°	589.7	587.1	590.9	590.9	594.8	594.8	599.9	597.4	601.2	601.2	601.2
42.5°	553.7	553.7	551.1	555.0	556.3	555.0	564.0	562.7	564.0	561.4	562.7
45°	515.1	515.1	512.6	511.3	517.7	516.4	526.7	522.8	528.0	525.4	526.7
47.5°	462.5	468.9	465.0	468.9	476.6	477.9	484.3	481.8	486.9	483.1	488.2
50°	412.4	412.4	416.2	421.4	429.1	430.4	438.1	443.2	445.8	447.1	448.4
52.5°	359.7	358.4	362.3	368.7	375.1	380.3	388.0	395.7	400.8	408.5	404.6
55°	298.0	300.6	304.5	312.2	322.5	328.9	335.3	345.6	354.6	358.4	366.1
57.5°	245.4	242.8	245.4	255.6	267.2	272.4	281.4	291.6	304.5	312.2	314.8
60°	190.1	191.4	194.0	203.0	212.0	219.7	223.6	240.2	251.8	259.5	264.6
62.5°	140.1	142.6	145.2	152.9	161.9	168.3	174.7	188.9	199.1	206.8	212.0
65°	97.6	98.9	102.8	106.6	115.6	122.0	127.2	138.7	149.0	155.5	159.3
67.5°	60.4	61.6	64.2	69.4	75.8	80.9	86.1	93.8	102.8	109.2	110.5
70°	30.8	32.1	33.4	37.3	42.4	45.0	48.8	55.2	61.6	66.8	69.4
72.5°	10.3	10.3	11.6	14.2	16.7	19.3	20.5	27.0	32.1	34.7	36.0
75°	2.6	2.6	2.6	2.6	2.6	3.9	3.9	7.7	10.3	12.8	14.2
77.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.6	2.6
80°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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°	904.4	904.4	904.4	904.4	904.4	904.4	904.4	904.4	904.4	904.4
2.5°	904.4	901.9	900.6	901.9	901.9	900.6	904.4	909.6	916.0	899.3
5°	903.1	900.6	903.1	895.4	899.3	896.7	901.9	900.6	905.7	900.6
7.5°	899.3	894.2	895.4	891.6	896.7	890.3	894.2	901.9	896.7	889.0
10°	886.5	883.9	892.8	880.0	877.4	882.6	892.8	885.1	882.6	885.1
12.5°	873.6	873.6	877.4	867.2	868.4	871.0	876.1	871.0	873.6	880.0
15°	859.5	856.9	863.3	855.6	854.3	851.8	856.9	856.9	859.5	855.6
17.5°	842.7	838.9	838.9	836.3	835.0	841.5	844.0	845.3	846.6	841.5
20°	822.2	820.9	824.8	820.9	822.2	823.5	823.5	820.9	832.5	818.4
22.5°	800.3	804.2	799.1	796.5	799.1	801.6	801.6	802.9	800.3	797.8
25°	778.5	781.1	782.4	774.6	778.5	774.6	783.7	784.9	779.8	782.4
27.5°	759.2	755.4	754.1	749.0	751.5	750.3	751.5	751.5	759.2	749.0
30°	729.7	725.8	727.1	723.3	724.5	723.3	724.5	724.5	729.7	728.4
32.5°	701.4	697.6	698.9	695.0	695.0	696.3	693.7	693.7	697.6	695.0
35°	674.4	665.5	666.7	665.5	666.7	661.6	661.6	660.3	662.9	656.5
37.5°	635.9	632.1	630.8	629.5	630.8	628.2	630.8	626.9	630.8	625.6
40°	601.2	598.6	599.9	592.2	592.2	593.5	590.9	589.7	590.9	596.1
42.5°	566.6	561.4	558.9	556.3	557.5	553.7	552.4	549.8	552.4	547.3
45°	525.4	525.4	524.2	517.7	519.0	519.0	513.9	508.7	510.0	510.0
47.5°	488.2	485.6	484.3	477.9	476.6	475.4	470.2	466.3	466.3	462.5
50°	447.1	444.5	440.7	434.2	431.6	423.9	420.1	415.0	409.8	409.8
52.5°	408.5	399.5	394.4	384.1	380.3	376.4	366.1	362.3	358.4	354.6
55°	362.3	354.6	344.3	332.7	327.6	321.2	310.9	303.2	298.0	299.3
57.5°	317.3	304.5	294.2	278.8	272.4	268.5	258.2	247.9	242.8	242.8
60°	262.1	251.8	239.0	224.8	219.7	213.3	200.4	194.0	190.1	186.3
62.5°	209.4	201.7	190.1	172.1	168.3	161.9	152.9	145.2	141.3	141.3
65°	156.7	149.0	138.7	125.9	120.8	115.6	107.9	100.2	96.3	95.1
67.5°	110.5	101.5	92.5	82.2	78.4	75.8	68.1	63.0	60.4	59.1
70°	66.8	61.6	55.2	47.5	43.7	41.1	36.0	32.1	30.8	29.6
72.5°	34.7	30.8	25.7	20.5	18.0	15.4	12.8	10.3	9.0	9.0
75°	12.8	10.3	6.4	3.9	2.6	2.6	2.6	2.6	2.6	2.6
77.5°	2.6	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
80°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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)