

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: P#

Luminaire Tested: **LD4C45D010 EX4C459035 4LBSQLI**

Issue Date: 2/9/2022

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: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P209151)
Test Lab: INNOVATION CENTER
Issue Date: 2/9/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C45D010 EX4C459035 4LBSQLI
Description: 4 INCH 4500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS
AND 4LBSQ TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

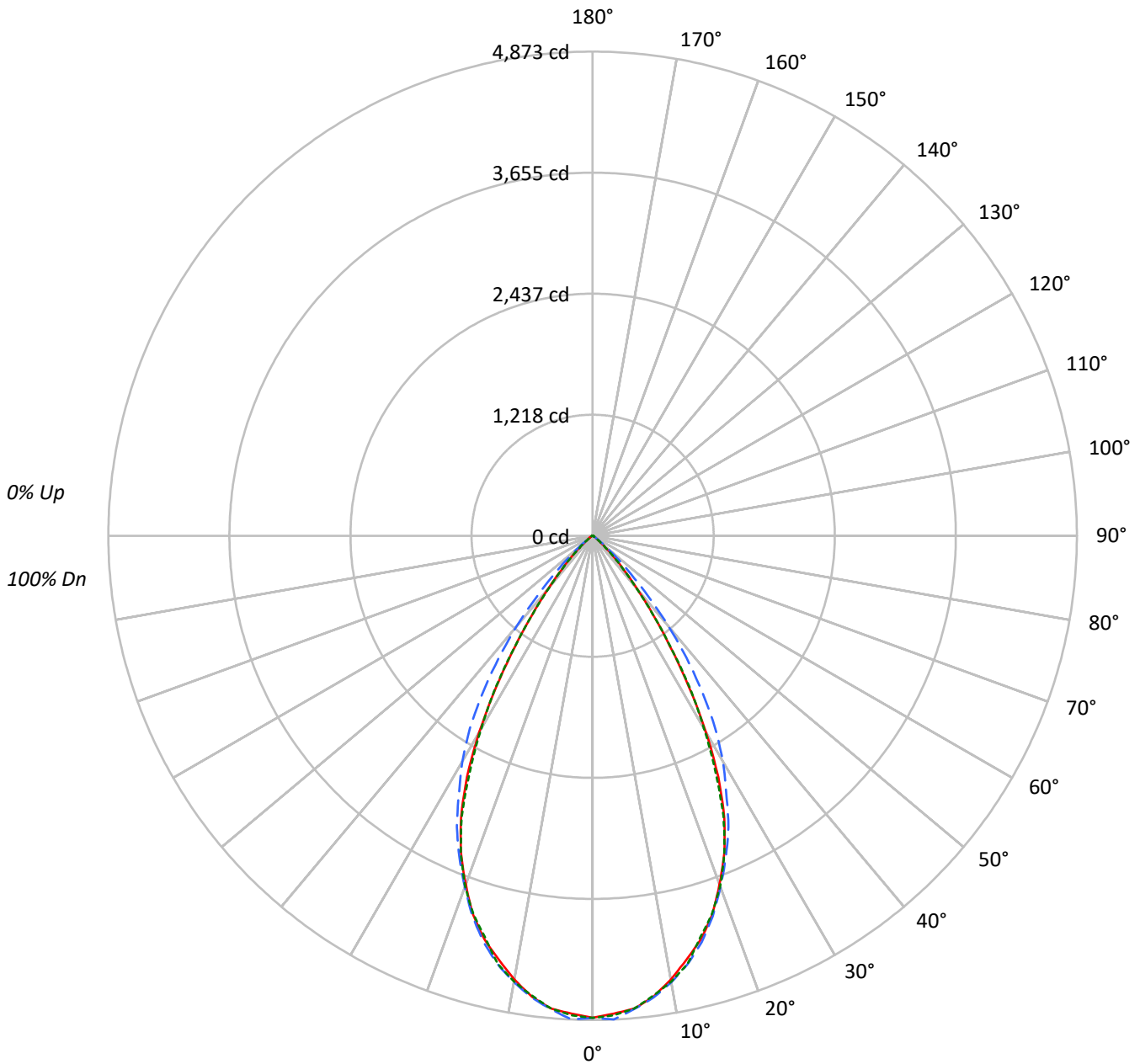
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4479.0 lumens
Efficiency: N/A
Efficacy: 90.3 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 0.9 / 0.94
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 49.6
Input Voltage (V):
Input Current (Ain): 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	113	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93			
2	108	103	99	95	105	101	97	94	98	95	92	95	92	90	92	90	88	87			
3	102	96	91	87	100	94	90	86	92	88	84	89	86	83	87	84	82	80			
4	97	89	84	79	95	88	83	79	86	81	78	84	80	77	82	79	76	75			
5	92	83	77	73	90	82	77	73	81	76	72	79	75	71	77	74	71	69			
6	87	78	72	68	86	77	71	67	76	71	67	74	70	66	73	69	66	64			
7	83	73	67	63	81	73	67	63	71	66	62	70	65	62	69	65	62	60			
8	79	69	63	59	77	68	62	58	67	62	58	66	61	58	65	61	58	56			
9	75	65	59	55	74	64	59	55	63	58	55	63	58	54	62	57	54	53			
10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	50			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	468116	468116	468116
5°	462737	463337	462737
10°	444229	446953	446346
15°	419969	423045	417811
20°	383268	386113	385168
25°	333732	344229	331432
30°	253772	291898	250006
35°	159748	226913	161197
40°	86180	149864	84631
45°	40800	74027	40364
50°	15281	27755	15281
55°	7250	8815	6746
60°	4767	4168	4767
65°	2808	2808	2808
70°	1749	2624	1749
75°	1156	1156	1156
80°	1723	1723	1723
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	449.8	10.0
10°-20°	1178.8	26.3
20°-30°	1440.1	32.2
30°-40°	1007.2	22.5
40°-50°	330.1	7.4
50°-60°	52.5	1.2
60°-70°	14.3	0.3
70°-80°	4.8	0.1
80°-90°	1.3	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°	3068.7	68.5
0°-40°	4076.0	91.0
0°-60°	4458.5	99.5
0°-90°	4479.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4479.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4852	4852	4852	4852	4852	
5°	4778	4779	4784	4754	4778	448
15°	4204	4221	4235	4207	4183	1173
25°	3135	3182	3233	3175	3113	1408
35°	1356	1601	1926	1577	1368	865
45°	299	368	542	364	296	251
55°	43	46	52	46	40	43
65°	12	16	12	16	12	14
75°	3	3	3	3	3	4
85°	0	0	0	0	0	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4851.5	4851.5	4851.5	4851.5	4851.5	4851.5	4851.5	4851.5	4851.5	4851.5	4851.5
2.5°	4814.5	4848.4	4839.1	4860.8	4860.8	4836.1	4842.3	4851.5	4863.8	4873.1	4799.0
5°	4777.5	4808.3	4780.5	4811.3	4792.8	4765.2	4811.3	4786.7	4802.1	4783.7	4796.0
7.5°	4678.9	4728.2	4672.7	4709.7	4697.4	4681.9	4700.4	4694.2	4703.5	4688.1	4654.2
10°	4534.0	4574.1	4537.1	4589.5	4564.8	4549.5	4564.8	4580.3	4577.1	4561.8	4580.3
12.5°	4367.6	4413.7	4395.3	4426.1	4398.4	4398.4	4435.4	4426.1	4429.2	4416.9	4438.4
15°	4204.2	4238.1	4210.4	4250.5	4238.1	4204.2	4219.5	4219.5	4244.3	4235.0	4210.4
17.5°	4000.8	4028.5	3997.7	4007.0	3994.6	3988.5	4053.1	4010.0	4034.6	4016.2	4019.3
20°	3732.6	3745.0	3735.7	3760.3	3745.0	3763.5	3757.3	3751.1	3751.1	3760.3	3738.8
22.5°	3461.3	3461.3	3470.6	3476.8	3489.1	3470.6	3507.6	3476.8	3479.8	3501.5	3495.3
25°	3134.7	3125.4	3147.0	3177.8	3190.2	3174.7	3224.0	3199.3	3217.8	3233.3	3199.3
27.5°	2737.1	2737.1	2758.6	2811.1	2820.2	2838.7	2906.5	2906.5	2931.2	2909.7	2934.3
30°	2277.7	2311.7	2339.4	2407.2	2428.8	2468.9	2539.7	2573.7	2629.2	2619.9	2607.5
32.5°	1806.2	1852.5	1855.5	1926.4	1984.9	2052.7	2148.3	2228.4	2268.6	2296.2	2265.4
35°	1356.2	1384.0	1408.6	1457.9	1556.5	1646.0	1732.2	1837.0	1908.0	1926.4	1898.6
37.5°	992.5	998.7	1023.3	1069.5	1143.5	1229.9	1334.6	1448.6	1522.7	1550.4	1519.5
40°	684.2	690.4	702.7	742.9	804.5	866.1	949.4	1066.5	1134.3	1189.8	1149.6
42.5°	459.2	465.4	477.7	508.5	542.5	601.0	665.8	739.7	804.5	829.1	807.5
45°	299.0	299.0	305.1	326.8	345.3	391.4	437.7	483.9	527.0	542.5	527.0
47.5°	175.7	178.7	184.9	200.4	221.9	240.4	274.3	305.1	317.5	329.8	323.6
50°	101.8	101.8	110.9	120.2	135.6	147.9	160.2	172.6	178.7	184.9	178.7
52.5°	55.5	58.6	61.6	64.8	70.9	83.3	92.4	92.4	95.6	98.6	95.6
55°	43.1	43.1	43.1	43.1	46.3	46.3	46.3	49.3	49.3	52.4	49.3
57.5°	30.8	30.8	30.8	34.0	34.0	34.0	30.8	30.8	30.8	30.8	30.8
60°	24.7	24.7	24.7	24.7	24.7	24.7	24.7	21.6	21.6	21.6	21.6
62.5°	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
65°	12.3	12.3	15.5	15.5	15.5	15.5	15.5	12.3	12.3	12.3	12.3
67.5°	9.3	9.3	9.3	9.3	12.3	12.3	9.3	9.3	9.3	9.3	9.3
70°	6.2	6.2	6.2	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
72.5°	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
75°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
77.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
80°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	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°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	4851.5	4851.5	4851.5	4851.5	4851.5	4851.5	4851.5	4851.5
2.5°	4851.5	4799.0	4805.2	4833.0	4817.5	4833.0	4829.9	4829.9
5°	4799.0	4783.7	4759.0	4749.7	4768.2	4808.3	4802.1	4777.5
7.5°	4700.4	4660.4	4688.1	4700.4	4685.0	4709.7	4722.0	4669.6
10°	4583.3	4567.9	4561.8	4567.9	4561.8	4586.4	4555.6	4555.6
12.5°	4416.9	4392.2	4392.2	4429.2	4407.6	4389.1	4413.7	4410.7
15°	4250.5	4201.0	4201.0	4213.4	4222.7	4210.4	4213.4	4182.6
17.5°	4003.8	3988.5	3966.8	4000.8	4010.0	3997.7	4007.0	3991.5
20°	3772.6	3772.6	3732.6	3748.0	3760.3	3769.6	3775.8	3751.1
22.5°	3476.8	3483.0	3455.2	3486.0	3495.3	3464.5	3470.6	3464.5
25°	3205.5	3202.5	3180.8	3168.5	3174.7	3162.4	3159.3	3113.1
27.5°	2906.5	2875.7	2829.5	2841.9	2789.4	2746.3	2746.3	2675.3
30°	2582.9	2530.6	2468.9	2407.2	2361.0	2311.7	2283.9	2243.9
32.5°	2203.8	2133.0	2055.9	1972.6	1920.3	1846.3	1806.2	1827.8
35°	1827.8	1722.9	1618.2	1535.0	1454.8	1411.6	1362.3	1368.5
37.5°	1464.1	1316.2	1223.7	1134.3	1066.5	1011.0	989.4	983.2
40°	1069.5	952.4	860.0	795.2	749.0	705.9	681.2	671.9
42.5°	739.7	656.6	582.5	530.2	499.3	471.6	459.2	456.2
45°	480.9	431.5	382.2	345.3	320.6	302.1	299.0	295.8
47.5°	302.1	277.3	246.5	218.9	197.2	184.9	175.7	175.7
50°	172.6	163.4	147.9	132.6	120.2	114.1	104.8	101.8
52.5°	92.4	92.4	86.3	74.0	64.8	58.6	58.6	55.5
55°	49.3	49.3	46.3	46.3	43.1	43.1	43.1	40.1
57.5°	30.8	30.8	34.0	34.0	30.8	30.8	30.8	30.8
60°	21.6	24.7	24.7	24.7	24.7	24.7	24.7	24.7
62.5°	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
65°	12.3	15.5	15.5	15.5	15.5	12.3	12.3	12.3
67.5°	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
70°	9.3	9.3	9.3	9.3	9.3	6.2	6.2	6.2
72.5°	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
75°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
77.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
80°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
82.5°	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
87.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
90°	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)