

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 EX4C459030 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 EX4C459030 4LBSQLI
Description: 4 INCH 4500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBSQ TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

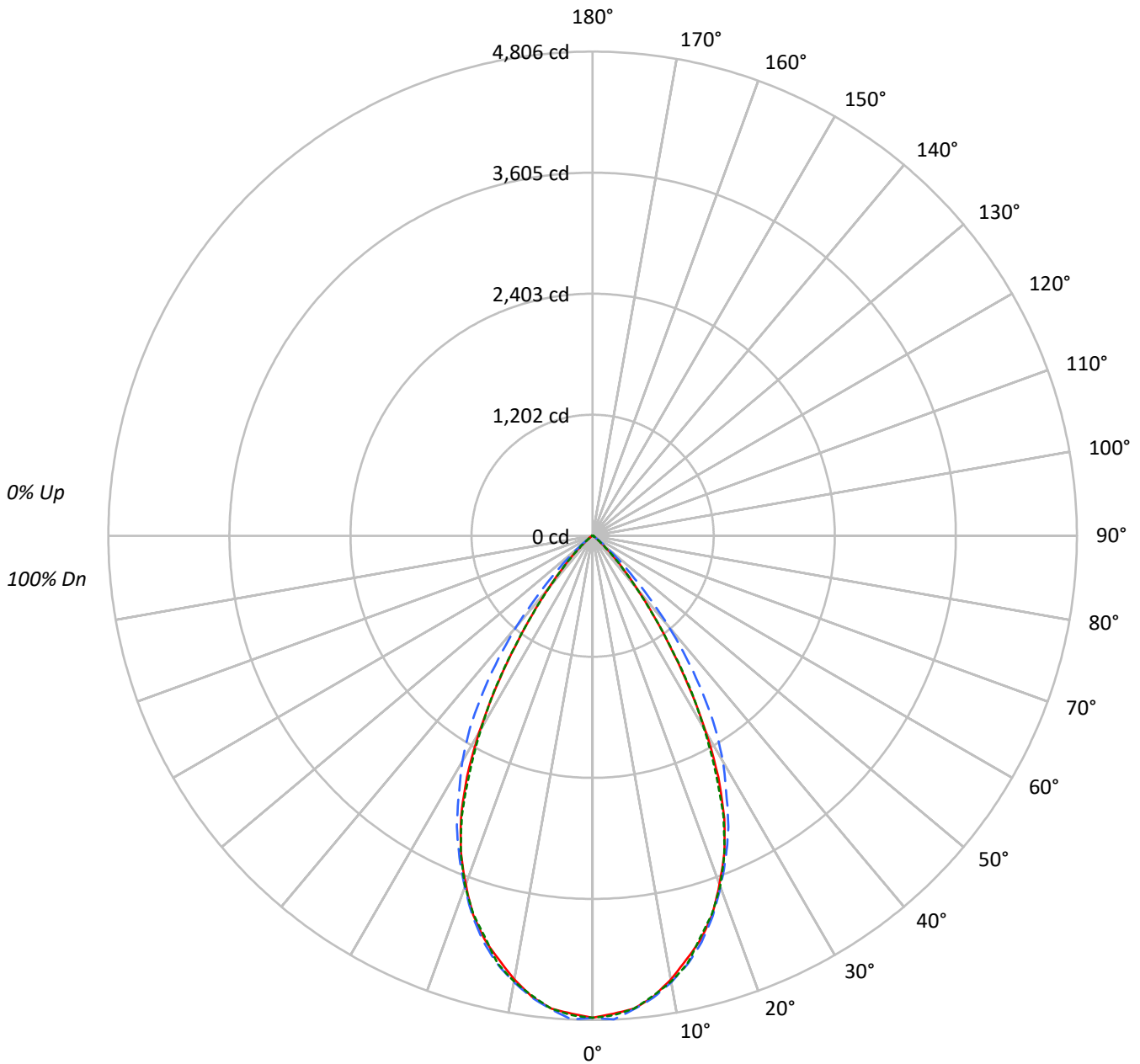
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4417.0 lumens
Efficiency: N/A
Efficacy: 89.1 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

TEST NUMBER: P#
CATALOG NUMBER: LD4C45D010 EX4C459030 4LBSQLI

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	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°	461632	461632	461632
5°	456334	456915	456334
10°	438077	440761	440173
15°	414155	417192	412027
20°	377970	380773	379839
25°	329111	339460	326844
30°	250262	287854	246541
35°	157534	223780	158959
40°	84996	147786	83459
45°	40227	73004	39804
50°	15056	27365	15056
55°	7149	8697	6662
60°	4689	4110	4689
65°	2785	2785	2785
70°	1721	2595	1721
75°	1156	1156	1156
80°	1723	1723	1723
85°	0	0	0



TEST NUMBER: P#

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	443.6	10.0
10°-20°	1162.5	26.3
20°-30°	1420.2	32.2
30°-40°	993.3	22.5
40°-50°	325.5	7.4
50°-60°	51.8	1.2
60°-70°	14.1	0.3
70°-80°	4.7	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°	3026.3	68.5
0°-40°	4019.6	91.0
0°-60°	4396.8	99.5
0°-90°	4417.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4417.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4784	4784	4784	4784	4784	
5°	4711	4713	4717	4689	4711	442
15°	4146	4163	4176	4149	4125	1156
25°	3091	3138	3188	3131	3070	1389
35°	1337	1579	1900	1555	1350	853
45°	295	363	535	359	292	247
55°	42	46	52	46	40	42
65°	12	15	12	15	12	13
75°	3	3	3	3	3	4
85°	0	0	0	0	0	1
90°	0	0	0	0	0	



TEST NUMBER: P#

CATALOG NUMBER: LD4C45D010 EX4C459030 4LBSQLI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4784.3	4784.3	4784.3	4784.3	4784.3	4784.3	4784.3	4784.3	4784.3	4784.3	4784.3
2.5°	4747.8	4781.3	4772.1	4793.5	4793.5	4769.2	4775.2	4784.3	4796.5	4805.6	4732.6
5°	4711.4	4741.8	4714.3	4744.7	4726.5	4699.2	4744.7	4720.4	4735.7	4717.4	4729.6
7.5°	4614.1	4662.7	4608.0	4644.5	4632.4	4617.1	4635.3	4629.3	4638.4	4623.2	4589.8
10°	4471.2	4510.8	4474.3	4525.9	4501.6	4486.5	4501.6	4516.9	4513.8	4498.6	4516.9
12.5°	4307.1	4352.6	4334.4	4364.8	4337.5	4337.5	4374.0	4364.8	4367.9	4355.7	4377.0
15°	4146.0	4179.5	4152.1	4191.6	4179.5	4146.0	4161.1	4161.1	4185.6	4176.4	4152.1
17.5°	3945.4	3972.7	3942.3	3951.5	3939.3	3933.3	3997.0	3954.5	3978.8	3960.6	3963.7
20°	3681.0	3693.1	3684.0	3708.3	3693.1	3711.4	3705.3	3699.2	3699.2	3708.3	3687.1
22.5°	3413.4	3413.4	3422.6	3428.7	3440.8	3422.6	3459.1	3428.7	3431.7	3453.0	3446.9
25°	3091.3	3082.1	3103.4	3133.8	3146.0	3130.7	3179.4	3155.1	3173.3	3188.5	3155.1
27.5°	2699.2	2699.2	2720.4	2772.1	2781.2	2799.4	2866.3	2866.3	2890.6	2869.4	2893.7
30°	2246.2	2279.7	2307.0	2373.9	2395.2	2434.8	2504.6	2538.1	2592.8	2583.6	2571.4
32.5°	1781.2	1826.8	1829.8	1899.8	1957.5	2024.3	2118.6	2197.6	2237.2	2264.5	2234.1
35°	1337.4	1364.8	1389.1	1437.7	1535.0	1623.2	1708.3	1811.6	1881.5	1899.8	1872.4
37.5°	978.8	984.9	1009.2	1054.7	1127.6	1212.8	1316.2	1428.6	1501.6	1528.9	1498.5
40°	674.8	680.8	693.0	732.6	793.4	854.1	936.2	1051.7	1118.6	1173.3	1133.7
42.5°	452.9	458.9	471.1	501.5	535.0	592.7	656.5	729.5	793.4	817.7	796.3
45°	294.8	294.8	300.9	322.3	340.5	386.0	431.7	477.2	519.7	535.0	519.7
47.5°	173.3	176.3	182.3	197.6	218.8	237.0	270.5	300.9	313.1	325.2	319.2
50°	100.3	100.3	109.4	118.6	133.7	145.9	158.0	170.2	176.3	182.3	176.3
52.5°	54.7	57.8	60.8	63.9	70.0	82.1	91.2	91.2	94.3	97.2	94.3
55°	42.5	42.5	42.5	42.5	45.6	45.6	45.6	48.6	48.6	51.7	48.6
57.5°	30.4	30.4	30.4	33.5	33.5	33.5	30.4	30.4	30.4	30.4	30.4
60°	24.3	24.3	24.3	24.3	24.3	24.3	24.3	21.3	21.3	21.3	21.3
62.5°	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
65°	12.2	12.2	15.3	15.3	15.3	15.3	15.3	12.2	12.2	12.2	12.2
67.5°	9.2	9.2	9.2	9.2	12.2	12.2	9.2	9.2	9.2	9.2	9.2
70°	6.1	6.1	6.1	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2
72.5°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
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



TEST NUMBER: P#

CATALOG NUMBER: LD4C45D010 EX4C459030 4LBSQLI

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	4784.3	4784.3	4784.3	4784.3	4784.3	4784.3	4784.3	4784.3
2.5°	4784.3	4732.6	4738.7	4766.1	4750.8	4766.1	4763.1	4763.1
5°	4732.6	4717.4	4693.1	4684.0	4702.2	4741.8	4735.7	4711.4
7.5°	4635.3	4595.9	4623.2	4635.3	4620.2	4644.5	4656.7	4604.9
10°	4519.8	4504.7	4498.6	4504.7	4498.6	4522.9	4492.6	4492.6
12.5°	4355.7	4331.4	4331.4	4367.9	4346.6	4328.3	4352.6	4349.7
15°	4191.6	4142.9	4142.9	4155.1	4164.2	4152.1	4155.1	4124.7
17.5°	3948.4	3933.3	3911.9	3945.4	3954.5	3942.3	3951.5	3936.2
20°	3720.4	3720.4	3681.0	3696.1	3708.3	3717.4	3723.5	3699.2
22.5°	3428.7	3434.8	3407.3	3437.7	3446.9	3416.5	3422.6	3416.5
25°	3161.1	3158.1	3136.8	3124.7	3130.7	3118.6	3115.6	3070.0
27.5°	2866.3	2835.9	2790.4	2802.5	2750.8	2708.3	2708.3	2638.3
30°	2547.1	2495.5	2434.8	2373.9	2328.3	2279.7	2252.3	2212.8
32.5°	2173.3	2103.4	2027.4	1945.3	1893.7	1820.8	1781.2	1802.5
35°	1802.5	1699.1	1595.8	1513.8	1434.6	1392.1	1343.5	1349.5
37.5°	1443.8	1297.9	1206.8	1118.6	1051.7	997.0	975.7	969.6
40°	1054.7	939.2	848.1	784.2	738.6	696.1	671.8	662.6
42.5°	729.5	647.5	574.4	522.8	492.4	465.0	452.9	449.9
45°	474.2	425.6	377.0	340.5	316.2	297.9	294.8	291.7
47.5°	297.9	273.5	243.1	215.8	194.5	182.3	173.3	173.3
50°	170.2	161.1	145.9	130.7	118.6	112.5	103.3	100.3
52.5°	91.2	91.2	85.1	72.9	63.9	57.8	57.8	54.7
55°	48.6	48.6	45.6	45.6	42.5	42.5	42.5	39.6
57.5°	30.4	30.4	33.5	33.5	30.4	30.4	30.4	30.4
60°	21.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3
62.5°	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
65°	12.2	15.3	15.3	15.3	15.3	12.2	12.2	12.2
67.5°	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2
70°	9.2	9.2	9.2	9.2	9.2	6.1	6.1	6.1
72.5°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
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)