

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 EX4C459040 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 EX4C459040 4LBSQLI
Description: 4 INCH 4500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LBSQ TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

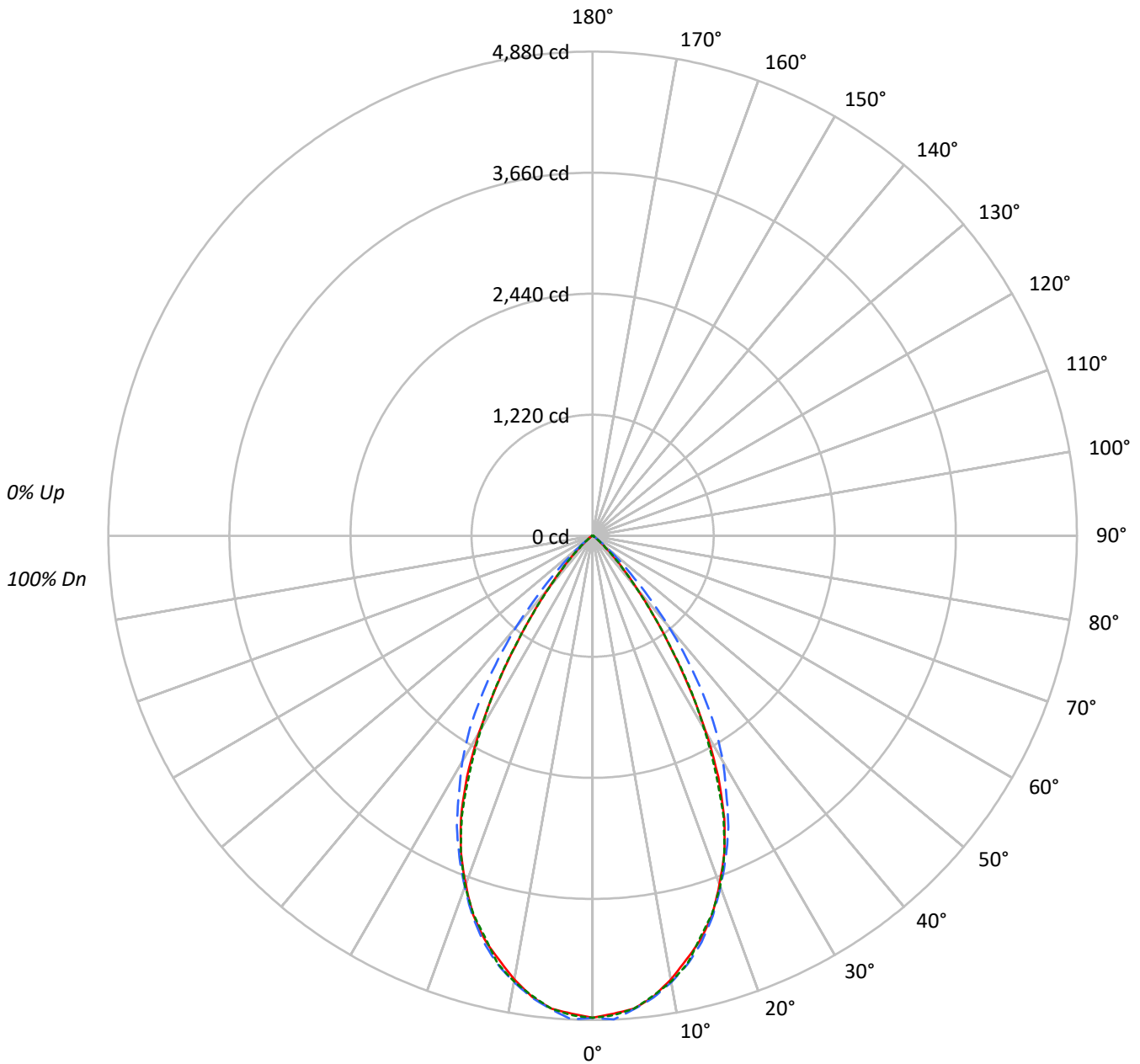
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4484.9 lumens
Efficiency: N/A
Efficacy: 90.4 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									
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°	468743	468743	468743
5°	463356	463957	463356
10°	444827	447551	446943
15°	420528	423615	418370
20°	383782	386636	385692
25°	334179	344687	331869
30°	254117	292288	250340
35°	159960	227219	161409
40°	86306	150053	84744
45°	40855	74123	40418
50°	15296	27785	15296
55°	7267	8832	6763
60°	4767	4188	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°	450.4	10.0
10°-20°	1180.4	26.3
20°-30°	1442.0	32.2
30°-40°	1008.6	22.5
40°-50°	330.5	7.4
50°-60°	52.6	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°	3072.9	68.5
0°-40°	4081.4	91.0
0°-60°	4464.5	99.5
0°-90°	4484.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4484.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4858	4858	4858	4858	4858	
5°	4784	4785	4790	4761	4784	449
15°	4210	4227	4241	4213	4188	1174
25°	3139	3187	3238	3179	3117	1410
35°	1358	1603	1929	1579	1370	867
45°	299	369	543	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°	4858.0	4858.0	4858.0	4858.0	4858.0	4858.0	4858.0	4858.0	4858.0	4858.0	4858.0
2.5°	4820.9	4854.9	4845.6	4867.3	4867.3	4842.6	4848.8	4858.0	4870.3	4879.6	4805.4
5°	4783.9	4814.8	4786.9	4817.8	4799.3	4771.6	4817.8	4793.1	4808.6	4790.1	4802.4
7.5°	4685.2	4734.5	4679.0	4716.0	4703.7	4688.2	4706.7	4700.5	4709.8	4694.3	4660.5
10°	4540.1	4580.2	4543.2	4595.6	4570.9	4555.5	4570.9	4586.4	4583.3	4567.9	4586.4
12.5°	4373.4	4419.7	4401.1	4432.0	4404.3	4404.3	4441.3	4432.0	4435.1	4422.8	4444.3
15°	4209.8	4243.8	4216.0	4256.2	4243.8	4209.8	4225.2	4225.2	4250.0	4240.7	4216.0
17.5°	4006.2	4033.9	4003.0	4012.3	4000.0	3993.8	4058.6	4015.4	4040.0	4021.5	4024.7
20°	3737.6	3750.0	3740.7	3765.4	3750.0	3768.5	3762.3	3756.2	3756.2	3765.4	3743.8
22.5°	3466.0	3466.0	3475.3	3481.5	3493.8	3475.3	3512.3	3481.5	3484.5	3506.1	3500.0
25°	3138.9	3129.6	3151.2	3182.1	3194.4	3178.9	3228.3	3203.6	3222.1	3237.6	3203.6
27.5°	2740.8	2740.8	2762.3	2814.8	2824.0	2842.5	2910.4	2910.4	2935.1	2913.6	2938.2
30°	2280.8	2314.8	2342.5	2410.4	2432.1	2472.2	2543.1	2577.2	2632.7	2623.4	2611.0
32.5°	1808.6	1855.0	1858.0	1929.0	1987.6	2055.5	2151.2	2231.4	2271.6	2299.3	2268.5
35°	1358.0	1385.8	1410.5	1459.9	1558.6	1648.2	1734.6	1839.5	1910.5	1929.0	1901.2
37.5°	993.9	1000.0	1024.7	1070.9	1145.0	1231.5	1336.4	1450.5	1524.7	1552.4	1521.6
40°	685.2	691.3	703.7	743.8	805.6	867.3	950.7	1067.9	1135.8	1191.3	1151.2
42.5°	459.8	466.0	478.4	509.2	543.2	601.8	666.6	740.7	805.6	830.3	808.6
45°	299.4	299.4	305.6	327.2	345.7	392.0	438.3	484.5	527.7	543.2	527.7
47.5°	175.9	179.0	185.1	200.6	222.2	240.7	274.7	305.6	317.9	330.2	324.1
50°	101.9	101.9	111.1	120.4	135.8	148.1	160.5	172.8	179.0	185.1	179.0
52.5°	55.5	58.7	61.7	64.9	71.0	83.4	92.6	92.6	95.7	98.7	95.7
55°	43.2	43.2	43.2	43.2	46.3	46.3	46.3	49.4	49.4	52.5	49.4
57.5°	30.9	30.9	30.9	34.0	34.0	34.0	30.9	30.9	30.9	30.9	30.9
60°	24.7	24.7	24.7	24.7	24.7	24.7	24.7	21.7	21.7	21.7	21.7
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°	4858.0	4858.0	4858.0	4858.0	4858.0	4858.0	4858.0	4858.0
2.5°	4858.0	4805.4	4811.6	4839.4	4823.9	4839.4	4836.4	4836.4
5°	4805.4	4790.1	4765.4	4756.1	4774.6	4814.8	4808.6	4783.9
7.5°	4706.7	4666.6	4694.3	4706.7	4691.3	4716.0	4728.4	4675.8
10°	4589.4	4574.1	4567.9	4574.1	4567.9	4592.6	4561.7	4561.7
12.5°	4422.8	4398.1	4398.1	4435.1	4413.5	4395.0	4419.7	4416.6
15°	4256.2	4206.7	4206.7	4219.0	4228.3	4216.0	4219.0	4188.2
17.5°	4009.2	3993.8	3972.2	4006.2	4015.4	4003.0	4012.3	3996.8
20°	3777.7	3777.7	3737.6	3753.0	3765.4	3774.7	3780.8	3756.2
22.5°	3481.5	3487.6	3459.8	3490.7	3500.0	3469.1	3475.3	3469.1
25°	3209.8	3206.8	3185.1	3172.8	3178.9	3166.6	3163.6	3117.2
27.5°	2910.4	2879.6	2833.3	2845.7	2793.2	2750.0	2750.0	2678.9
30°	2586.4	2534.0	2472.2	2410.4	2364.2	2314.8	2287.0	2246.9
32.5°	2206.7	2135.8	2058.6	1975.2	1922.9	1848.8	1808.6	1830.3
35°	1830.3	1725.2	1620.3	1537.1	1456.7	1413.5	1364.1	1370.3
37.5°	1466.0	1317.9	1225.3	1135.8	1067.9	1012.4	990.7	984.5
40°	1070.9	953.7	861.1	796.2	750.0	706.8	682.1	672.8
42.5°	740.7	657.4	583.3	530.9	500.0	472.2	459.8	456.8
45°	481.5	432.1	382.8	345.7	321.0	302.5	299.4	296.2
47.5°	302.5	277.7	246.9	219.1	197.5	185.1	175.9	175.9
50°	172.8	163.6	148.1	132.7	120.4	114.2	104.9	101.9
52.5°	92.6	92.6	86.4	74.1	64.9	58.7	58.7	55.5
55°	49.4	49.4	46.3	46.3	43.2	43.2	43.2	40.2
57.5°	30.9	30.9	34.0	34.0	30.9	30.9	30.9	30.9
60°	21.7	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)