

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 EX4C459050 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 EX4C459050 4LBSQLI
Description: 4 INCH 4500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LBSQ TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

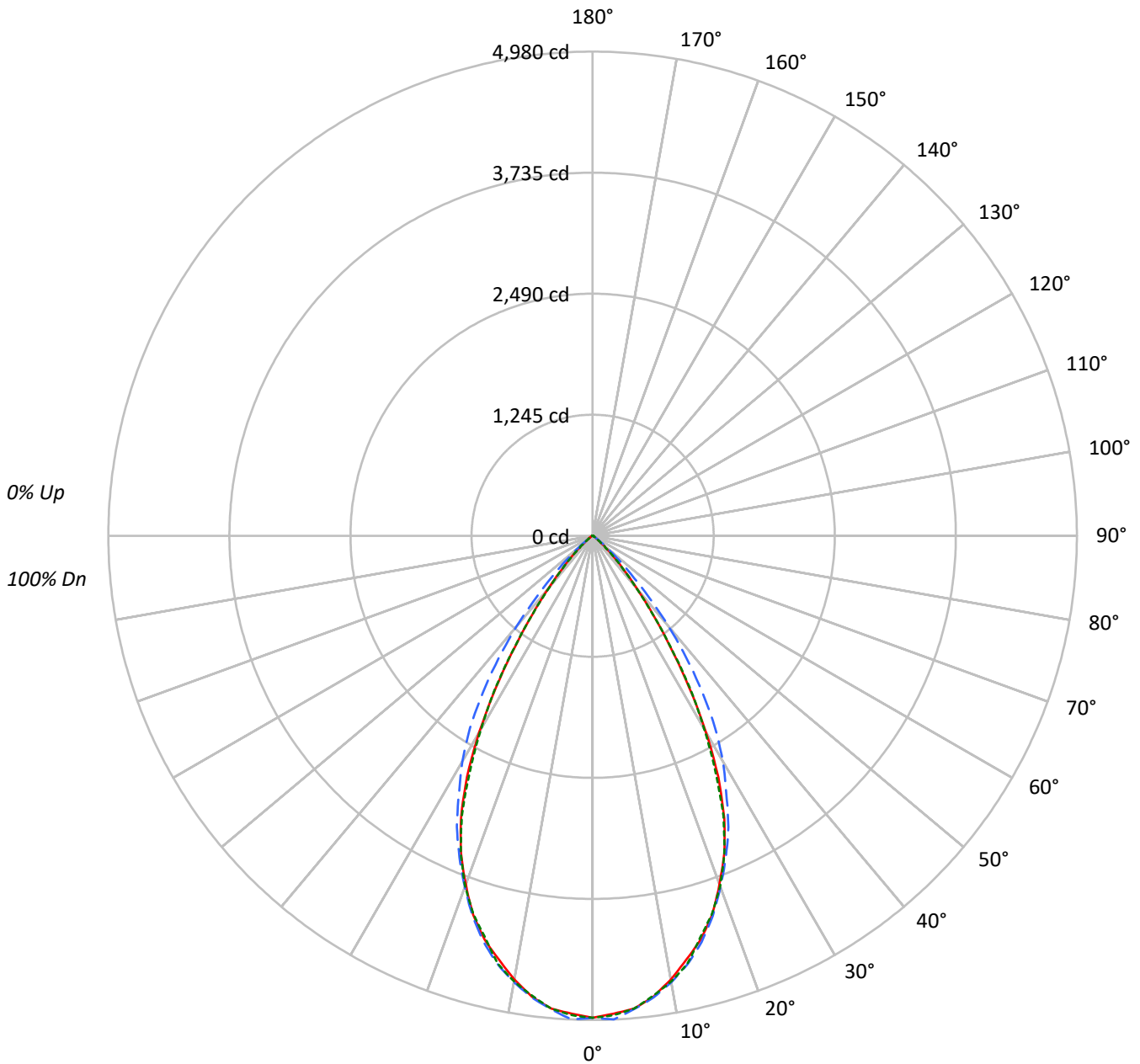
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4577.0 lumens
Efficiency: N/A
Efficacy: 92.3 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									
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°	478353	478353	478353
5°	472858	473468	472858
10°	453949	456731	456114
15°	429159	432305	426951
20°	391657	394563	393598
25°	341035	351756	338682
30°	259331	298282	255476
35°	163235	231884	164719
40°	88069	153139	86482
45°	41687	75651	41251
50°	15611	28356	15611
55°	7419	9017	6897
60°	4863	4265	4863
65°	2877	2877	2877
70°	1777	2680	1777
75°	1193	1193	1193
80°	1778	1778	1778
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	459.7	10.0
10°-20°	1204.6	26.3
20°-30°	1471.6	32.2
30°-40°	1029.3	22.5
40°-50°	337.3	7.4
50°-60°	53.6	1.2
60°-70°	14.6	0.3
70°-80°	4.9	0.1
80°-90°	1.4	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°	3135.9	68.5
0°-40°	4165.1	91.0
0°-60°	4556.1	99.5
0°-90°	4577.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4577.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4958	4958	4958	4958	4958	
5°	4882	4884	4888	4858	4882	458
15°	4296	4314	4328	4299	4274	1198
25°	3203	3252	3304	3244	3181	1439
35°	1386	1636	1969	1611	1398	884
45°	306	376	554	372	302	256
55°	44	47	54	47	41	44
65°	13	16	13	16	13	14
75°	3	3	3	3	3	5
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°	4957.6	4957.6	4957.6	4957.6	4957.6	4957.6	4957.6	4957.6	4957.6	4957.6	4957.6
2.5°	4919.8	4954.5	4945.0	4967.1	4967.1	4941.9	4948.2	4957.6	4970.2	4979.7	4904.0
5°	4882.0	4913.5	4885.1	4916.6	4897.7	4869.4	4916.6	4891.4	4907.2	4888.3	4900.9
7.5°	4781.3	4831.6	4775.0	4812.7	4800.2	4784.3	4803.2	4796.9	4806.4	4790.6	4756.1
10°	4633.2	4674.2	4636.4	4689.9	4664.7	4649.0	4664.7	4680.5	4677.3	4661.6	4680.5
12.5°	4463.1	4510.3	4491.4	4522.9	4494.6	4494.6	4532.4	4522.9	4526.1	4513.5	4535.5
15°	4296.2	4330.9	4302.5	4343.5	4330.9	4296.2	4311.9	4311.9	4337.2	4327.7	4302.5
17.5°	4088.3	4116.6	4085.1	4094.6	4082.0	4075.7	4141.8	4097.7	4122.9	4104.0	4107.2
20°	3814.3	3826.9	3817.4	3842.6	3826.9	3845.8	3839.5	3833.2	3833.2	3842.6	3820.6
22.5°	3537.1	3537.1	3546.6	3552.9	3565.5	3546.6	3584.4	3552.9	3556.0	3578.1	3571.8
25°	3203.3	3193.8	3215.9	3247.4	3260.0	3244.1	3294.5	3269.3	3288.2	3304.0	3269.3
27.5°	2797.0	2797.0	2819.0	2872.6	2881.9	2900.8	2970.1	2970.1	2995.3	2973.3	2998.5
30°	2327.6	2362.3	2390.6	2459.8	2482.0	2523.0	2595.3	2630.0	2686.7	2677.2	2664.6
32.5°	1845.7	1893.0	1896.1	1968.6	2028.4	2097.6	2195.3	2277.2	2318.2	2346.5	2315.0
35°	1385.8	1414.2	1439.4	1489.8	1590.6	1682.0	1770.1	1877.2	1949.7	1968.6	1940.2
37.5°	1014.2	1020.5	1045.7	1092.9	1168.5	1256.8	1363.9	1480.3	1556.0	1584.3	1552.8
40°	699.2	705.5	718.1	759.1	822.1	885.1	970.2	1089.8	1159.1	1215.8	1174.8
42.5°	469.3	475.6	488.2	519.7	554.4	614.1	680.3	755.9	822.1	847.3	825.2
45°	305.5	305.5	311.8	333.9	352.8	400.0	447.3	494.5	538.6	554.4	538.6
47.5°	179.6	182.6	188.9	204.8	226.7	245.6	280.3	311.8	324.4	337.0	330.7
50°	104.0	104.0	113.4	122.9	138.6	151.2	163.8	176.3	182.6	188.9	182.6
52.5°	56.7	59.9	63.0	66.2	72.5	85.1	94.5	94.5	97.7	100.8	97.7
55°	44.1	44.1	44.1	44.1	47.3	47.3	47.3	50.4	50.4	53.6	50.4
57.5°	31.5	31.5	31.5	34.7	34.7	34.7	31.5	31.5	31.5	31.5	31.5
60°	25.2	25.2	25.2	25.2	25.2	25.2	25.2	22.1	22.1	22.1	22.1
62.5°	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9
65°	12.6	12.6	15.8	15.8	15.8	15.8	15.8	12.6	12.6	12.6	12.6
67.5°	9.5	9.5	9.5	9.5	12.6	12.6	9.5	9.5	9.5	9.5	9.5
70°	6.3	6.3	6.3	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
72.5°	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
75°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
77.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
80°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	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°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
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°	4957.6	4957.6	4957.6	4957.6	4957.6	4957.6	4957.6	4957.6
2.5°	4957.6	4904.0	4910.3	4938.7	4922.9	4938.7	4935.6	4935.6
5°	4904.0	4888.3	4863.1	4853.6	4872.5	4913.5	4907.2	4882.0
7.5°	4803.2	4762.4	4790.6	4803.2	4787.6	4812.7	4825.3	4771.7
10°	4683.6	4667.9	4661.6	4667.9	4661.6	4686.8	4655.3	4655.3
12.5°	4513.5	4488.3	4488.3	4526.1	4504.0	4485.1	4510.3	4507.2
15°	4343.5	4293.0	4293.0	4305.6	4315.1	4302.5	4305.6	4274.1
17.5°	4091.4	4075.7	4053.6	4088.3	4097.7	4085.1	4094.6	4078.8
20°	3855.2	3855.2	3814.3	3830.0	3842.6	3852.1	3858.4	3833.2
22.5°	3552.9	3559.2	3530.8	3562.3	3571.8	3540.3	3546.6	3540.3
25°	3275.6	3272.5	3250.4	3237.8	3244.1	3231.6	3228.5	3181.2
27.5°	2970.1	2938.6	2891.5	2904.0	2850.5	2806.4	2806.4	2733.9
30°	2639.4	2585.9	2523.0	2459.8	2412.7	2362.3	2333.9	2293.0
32.5°	2252.0	2179.6	2100.9	2015.8	1962.3	1886.7	1845.7	1867.8
35°	1867.8	1760.6	1653.6	1568.6	1486.6	1442.5	1392.1	1398.4
37.5°	1496.1	1345.0	1250.5	1159.1	1089.8	1033.1	1011.0	1004.7
40°	1092.9	973.2	878.8	812.6	765.4	721.3	696.1	686.6
42.5°	755.9	670.9	595.2	541.8	510.3	481.9	469.3	466.2
45°	491.4	441.0	390.6	352.8	327.6	308.7	305.5	302.3
47.5°	308.7	283.4	251.9	223.6	201.5	188.9	179.6	179.6
50°	176.3	167.0	151.2	135.5	122.9	116.6	107.1	104.0
52.5°	94.5	94.5	88.2	75.6	66.2	59.9	59.9	56.7
55°	50.4	50.4	47.3	47.3	44.1	44.1	44.1	41.0
57.5°	31.5	31.5	34.7	34.7	31.5	31.5	31.5	31.5
60°	22.1	25.2	25.2	25.2	25.2	25.2	25.2	25.2
62.5°	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9
65°	12.6	15.8	15.8	15.8	15.8	12.6	12.6	12.6
67.5°	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
70°	9.5	9.5	9.5	9.5	9.5	6.3	6.3	6.3
72.5°	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
75°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
77.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
80°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
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°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
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)