

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: **LD4C90D010 EX4C909027 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: LD4C90D010 EX4C909027 4LBSQLI
Description: 4 INCH 9000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LBSQ TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

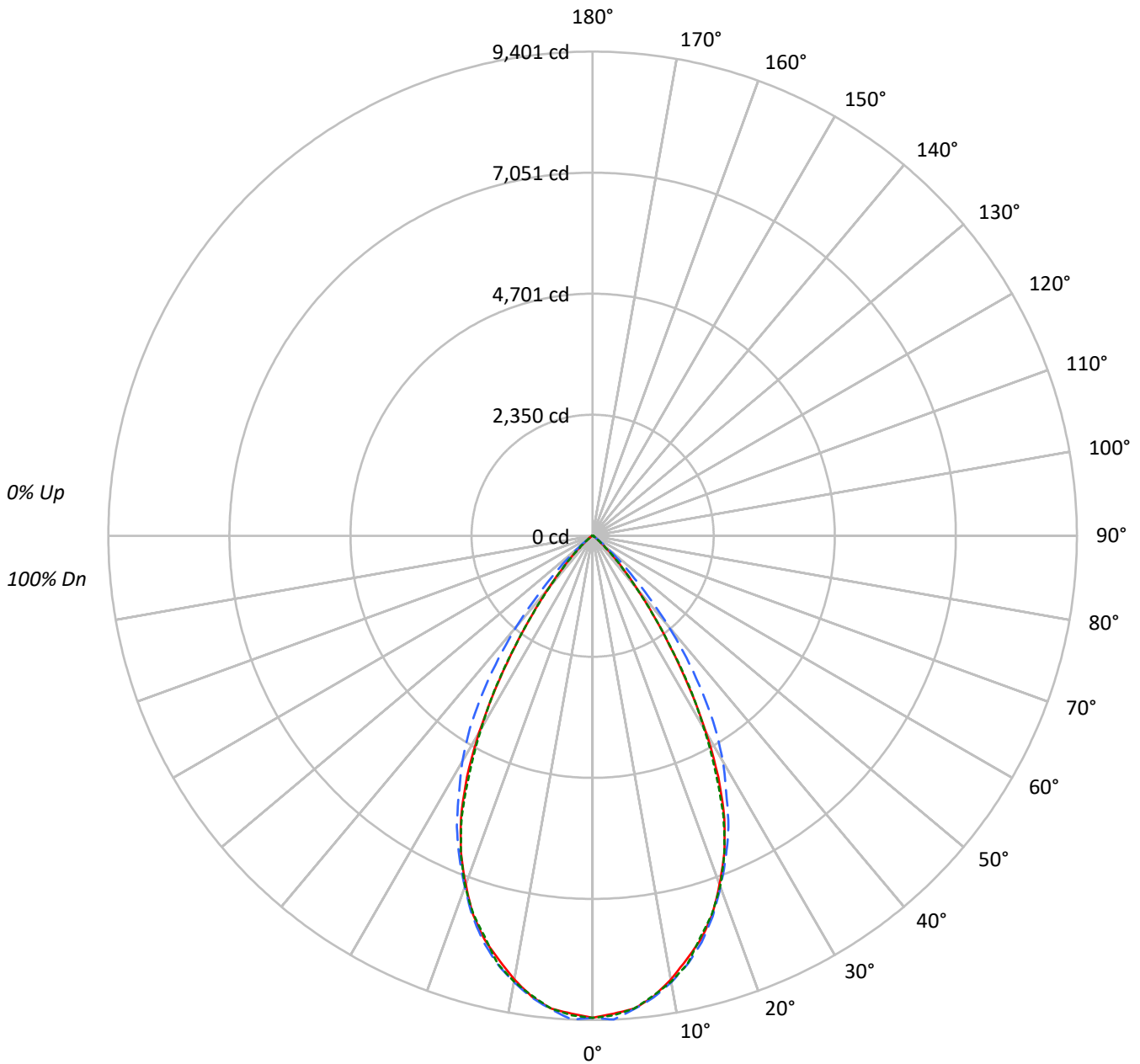
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8641.1 lumens
Efficiency: N/A
Efficacy: 89.0 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): 97.1
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°	903088	903088	903088
5°	892726	893878	892726
10°	857018	862270	861104
15°	810209	816153	806044
20°	739419	744902	743084
25°	643839	664099	639400
30°	489594	563129	482319
35°	308177	437771	310981
40°	166276	289110	163278
45°	78708	142815	77875
50°	29467	53544	29467
55°	13996	17024	13020
60°	9186	8047	9186
65°	5434	5434	5434
70°	3357	5078	3357
75°	2274	2274	2274
80°	3390	3390	3390
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	867.8	10.0
10°-20°	2274.3	26.3
20°-30°	2778.2	32.2
30°-40°	1943.2	22.5
40°-50°	636.8	7.4
50°-60°	101.3	1.2
60°-70°	27.7	0.3
70°-80°	9.3	0.1
80°-90°	2.6	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°	5920.3	68.5
0°-40°	7863.5	91.0
0°-60°	8601.5	99.5
0°-90°	8641.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8641.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9360	9360	9360	9360	9360	
5°	9217	9220	9229	9172	9217	864
15°	8111	8144	8170	8117	8069	2262
25°	6048	6140	6238	6125	6006	2717
35°	2616	3089	3716	3042	2640	1670
45°	577	711	1047	702	571	484
55°	83	89	101	89	77	82
65°	24	30	24	30	24	26
75°	6	6	6	6	6	9
85°	0	0	0	0	0	2
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°	9359.5	9359.5	9359.5	9359.5	9359.5	9359.5	9359.5	9359.5	9359.5	9359.5	9359.5
2.5°	9288.2	9353.7	9335.8	9377.5	9377.5	9329.9	9341.8	9359.5	9383.3	9401.3	9258.4
5°	9216.9	9276.3	9222.7	9282.1	9246.5	9193.1	9282.1	9234.6	9264.4	9228.8	9252.5
7.5°	9026.6	9121.7	9014.7	9086.1	9062.3	9032.4	9068.1	9056.2	9074.2	9044.3	8979.1
10°	8747.1	8824.5	8753.1	8854.1	8806.5	8776.9	8806.5	8836.4	8830.3	8800.7	8836.4
12.5°	8426.0	8515.1	8479.4	8538.9	8485.5	8485.5	8556.8	8538.9	8544.9	8521.2	8562.7
15°	8110.8	8176.3	8122.7	8200.1	8176.3	8110.8	8140.4	8140.4	8188.2	8170.3	8122.7
17.5°	7718.5	7771.8	7712.4	7730.3	7706.6	7694.7	7819.4	7736.2	7783.7	7748.1	7754.1
20°	7201.1	7224.9	7206.9	7254.5	7224.9	7260.6	7248.7	7236.8	7236.8	7254.5	7213.0
22.5°	6677.7	6677.7	6695.7	6707.5	6731.3	6695.7	6767.0	6707.5	6713.4	6755.1	6743.2
25°	6047.5	6029.6	6071.3	6130.7	6154.5	6124.7	6219.8	6172.2	6207.9	6237.8	6172.2
27.5°	5280.5	5280.5	5322.0	5423.2	5440.9	5476.5	5607.3	5607.3	5654.9	5613.4	5661.0
30°	4394.3	4459.8	4513.2	4644.0	4685.7	4763.1	4899.7	4965.3	5072.3	5054.3	5030.5
32.5°	3484.6	3573.9	3579.7	3716.5	3829.4	3960.2	4144.6	4299.2	4376.6	4430.0	4370.5
35°	2616.3	2670.0	2717.5	2812.6	3002.9	3175.4	3341.9	3544.0	3680.9	3716.5	3662.9
37.5°	1914.8	1926.7	1974.3	2063.3	2206.0	2372.7	2574.8	2794.7	2937.6	2991.0	2931.5
40°	1320.1	1331.9	1355.7	1433.1	1552.0	1670.9	1831.6	2057.5	2188.3	2295.3	2217.9
42.5°	885.9	897.8	921.6	981.1	1046.6	1159.4	1284.4	1427.1	1552.0	1599.6	1557.9
45°	576.8	576.8	588.7	630.4	666.1	755.2	844.4	933.5	1016.7	1046.6	1016.7
47.5°	339.0	344.8	356.7	386.6	428.1	463.7	529.2	588.7	612.5	636.2	624.4
50°	196.3	196.3	214.0	232.0	261.6	285.4	309.1	332.9	344.8	356.7	344.8
52.5°	107.0	113.1	118.9	125.0	136.9	160.6	178.4	178.4	184.4	190.2	184.4
55°	83.2	83.2	83.2	83.2	89.3	89.3	89.3	95.1	95.1	101.2	95.1
57.5°	59.5	59.5	59.5	65.5	65.5	65.5	59.5	59.5	59.5	59.5	59.5
60°	47.6	47.6	47.6	47.6	47.6	47.6	47.6	41.7	41.7	41.7	41.7
62.5°	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7
65°	23.8	23.8	29.8	29.8	29.8	29.8	29.8	23.8	23.8	23.8	23.8
67.5°	18.0	18.0	18.0	18.0	23.8	23.8	18.0	18.0	18.0	18.0	18.0
70°	11.9	11.9	11.9	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
72.5°	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9
75°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
77.5°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
80°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	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°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
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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CATALOG NUMBER: LD4C90D010 EX4C909027 4LBSQLI

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	9359.5	9359.5	9359.5	9359.5	9359.5	9359.5	9359.5	9359.5
2.5°	9359.5	9258.4	9270.3	9323.9	9294.0	9323.9	9318.0	9318.0
5°	9258.4	9228.8	9181.2	9163.2	9198.9	9276.3	9264.4	9216.9
7.5°	9068.1	8990.9	9044.3	9068.1	9038.5	9086.1	9109.9	9008.7
10°	8842.2	8812.6	8800.7	8812.6	8800.7	8848.3	8788.8	8788.8
12.5°	8521.2	8473.6	8473.6	8544.9	8503.2	8467.5	8515.1	8509.3
15°	8200.1	8104.8	8104.8	8128.6	8146.5	8122.7	8128.6	8069.1
17.5°	7724.3	7694.7	7652.9	7718.5	7736.2	7712.4	7730.3	7700.5
20°	7278.3	7278.3	7201.1	7230.7	7254.5	7272.4	7284.3	7236.8
22.5°	6707.5	6719.4	6665.8	6725.3	6743.2	6683.8	6695.7	6683.8
25°	6184.1	6178.3	6136.6	6112.8	6124.7	6100.9	6095.1	6005.8
27.5°	5607.3	5547.9	5458.8	5482.6	5381.4	5298.2	5298.2	5161.3
30°	4983.0	4882.0	4763.1	4644.0	4554.9	4459.8	4406.2	4329.0
32.5°	4251.6	4115.0	3966.2	3805.6	3704.7	3562.0	3484.6	3526.3
35°	3526.3	3323.9	3121.8	2961.4	2806.6	2723.4	2628.2	2640.1
37.5°	2824.5	2539.2	2360.8	2188.3	2057.5	1950.5	1908.7	1896.9
40°	2063.3	1837.4	1659.0	1534.1	1445.0	1361.8	1314.2	1296.3
42.5°	1427.1	1266.7	1123.8	1022.8	963.3	909.7	885.9	880.1
45°	927.7	832.6	737.4	666.1	618.5	582.9	576.8	570.7
47.5°	582.9	535.1	475.6	422.2	380.5	356.7	339.0	339.0
50°	332.9	315.2	285.4	255.8	232.0	220.1	202.1	196.3
52.5°	178.4	178.4	166.5	142.7	125.0	113.1	113.1	107.0
55°	95.1	95.1	89.3	89.3	83.2	83.2	83.2	77.4
57.5°	59.5	59.5	65.5	65.5	59.5	59.5	59.5	59.5
60°	41.7	47.6	47.6	47.6	47.6	47.6	47.6	47.6
62.5°	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7
65°	23.8	29.8	29.8	29.8	29.8	23.8	23.8	23.8
67.5°	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
70°	18.0	18.0	18.0	18.0	18.0	11.9	11.9	11.9
72.5°	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9
75°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
77.5°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
80°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
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°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
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)