

LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P#

Luminaire Tested: **FLDSQ4C75D010 FEU4C759027 F4LC-SQ-WH**

Issue Date: 12/13/2022

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P#
 Test Lab: INNOVATION CENTER
 Issue Date: 12/13/2022
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: FAIL-SAFE
 Catalog Number: FLDSQ4C75D010 FEU4C759027 F4LC-SQ-WH
 Description: 4 INCH 7500 LUMEN FAIL-SAFE LED DOWNLIGHT WITH, 2700K, 90CRI LEDS AND F4LC-SQW TRIM WITH H FINISH
 Light Source: -
 Ballast/Driver: -

Summary

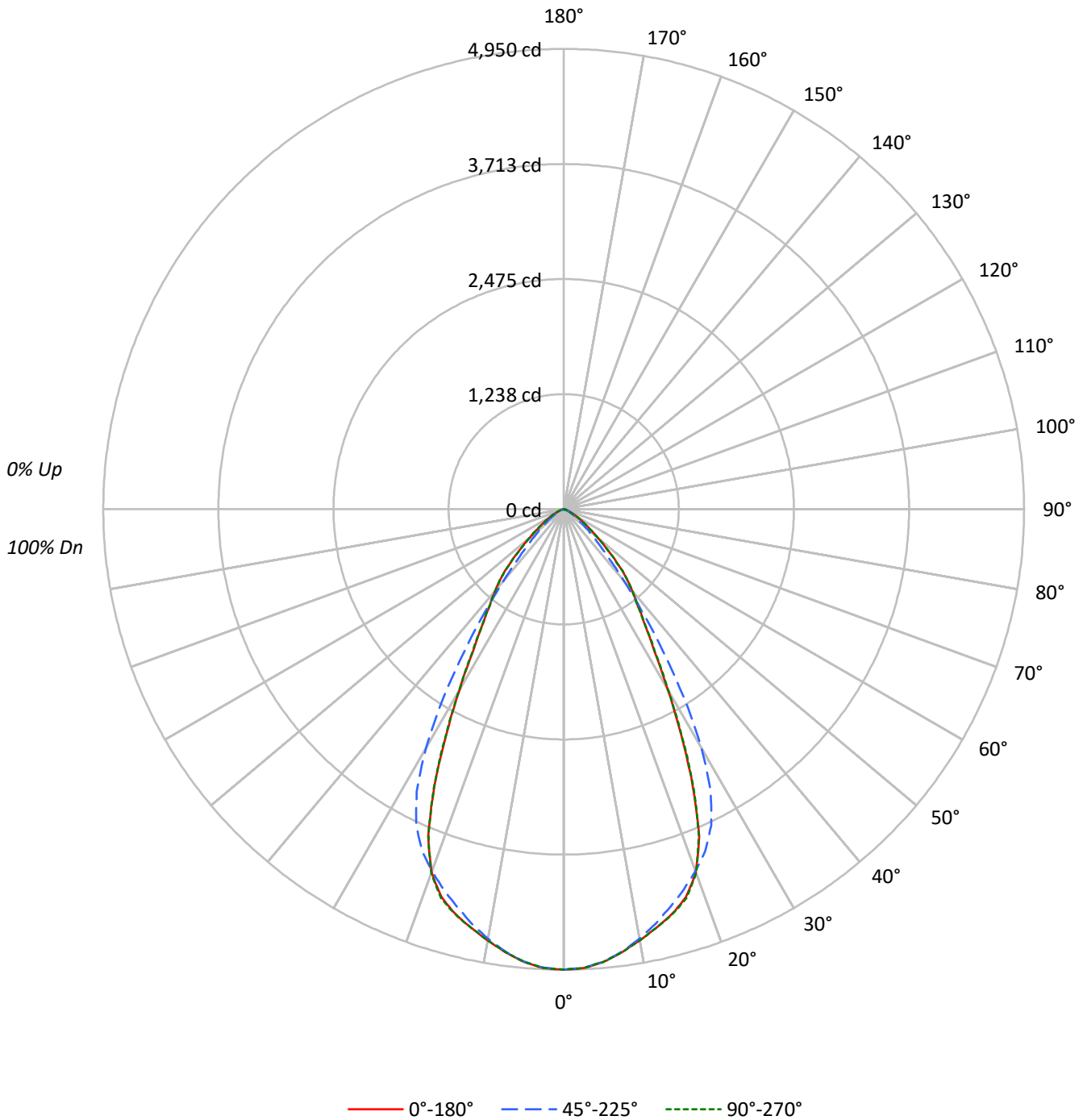
Lumens per Lamp: N/A
 Luminaire Lumens: 5239.0 lumens
 Efficiency: N/A
 Efficacy: 64.3 lumens/watt
 Spacing Criteria (0/90/45): 0.93 / 0.93 / 0.94
 Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
 CIE Type: Direct

Input Watts (W): 81.5
 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

Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	GONIO 1 IN0055	4/22/2021	10/22/2021
Power Meter	XITRON 2801 IN0197	12/1/2020	12/1/2021
AC Power Source	CHROMA 61505 IN0196	12/1/2020	12/1/2021
DC Power Supply	AGILENT E3634A IN0198	11/30/2020	11/30/2021
Room Thermometer	ONSET IN0143	12/1/2020	12/1/2021

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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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	113	110	107	105	110	108	105	103	104	102	100		100	98	97		96	95	94	92
2	107	101	97	93	104	99	95	92	96	93	90		93	90	88		90	88	86	84
3	101	93	88	84	98	92	87	83	89	85	82		87	83	80		85	82	79	77
4	95	87	80	76	93	85	80	75	83	78	74		81	77	74		79	76	73	71
5	89	80	74	69	88	79	73	69	78	72	68		76	71	68		74	70	67	66
6	85	75	68	64	83	74	68	63	72	67	63		71	66	63		70	65	62	61
7	80	70	63	59	79	69	63	59	68	62	58		67	62	58		65	61	58	56
8	76	65	59	55	74	65	59	54	64	58	54		63	58	54		62	57	54	52
9	72	61	55	51	71	61	55	51	60	54	51		59	54	50		58	54	50	49
10	68	58	52	48	67	57	51	47	57	51	47		56	51	47		55	50	47	46

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	477610	477610	477610
5°	473236	472926	473081
10°	461121	459279	461121
15°	450016	441905	450486
20°	426672	425070	427473
25°	349989	399345	351820
30°	249571	329924	249917
35°	180008	218620	180562
40°	144322	127015	144322
45°	110120	74123	109274
50°	72638	47330	72398
55°	48835	31777	48314
60°	32826	21691	33134
65°	22443	15320	22101
70°	14980	11002	14980
75°	9879	8164	9879
80°	6946	6057	6946
85°	5203	5203	5203

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	460.1	8.8
10°-20°	1254.7	23.9
20°-30°	1568.5	29.9
30°-40°	1055.2	20.1
40°-50°	557.1	10.6
50°-60°	226.4	4.3
60°-70°	84.0	1.6
70°-80°	27.1	0.5
80°-90°	5.8	0.1
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°	3283.3	62.7
0°-40°	4338.5	82.8
0°-60°	5122.1	97.8
0°-90°	5239.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5239.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4950	4950	4950	4950	4950	
5°	4886	4881	4883	4883	4884	460
15°	4505	4468	4424	4466	4510	1262
25°	3287	3472	3751	3478	3305	1480
35°	1528	1605	1856	1608	1533	983
45°	807	766	543	763	801	619
55°	290	244	189	244	287	269
65°	98	80	67	80	97	101
75°	26	23	22	23	26	31
85°	5	5	5	5	5	6
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4949.9	4949.9	4949.9	4949.9	4949.9
2.5°	4937.4	4934.3	4932.7	4932.7	4934.3
5°	4885.9	4881.2	4882.7	4882.7	4884.3
7.5°	4803.1	4801.6	4796.9	4803.1	4803.1
10°	4706.4	4698.6	4687.6	4700.1	4706.4
12.5°	4606.5	4583.0	4564.3	4583.0	4606.5
15°	4505.0	4467.5	4423.8	4466.0	4509.7
17.5°	4372.3	4334.8	4286.5	4342.6	4384.8
20°	4155.3	4158.5	4139.7	4155.3	4163.1
22.5°	3807.2	3877.5	3975.8	3879.0	3796.3
25°	3287.4	3471.6	3751.0	3477.9	3304.6
27.5°	2730.2	2964.3	3421.7	2978.4	2747.3
30°	2240.0	2447.6	2961.2	2461.7	2243.1
32.5°	1813.9	1968.4	2407.0	1987.1	1834.2
35°	1528.2	1604.7	1856.0	1607.8	1532.9
37.5°	1309.7	1309.7	1378.3	1315.9	1303.4
40°	1145.8	1095.8	1008.4	1094.2	1145.8
42.5°	992.8	917.9	732.1	914.7	995.9
45°	807.0	766.4	543.2	763.3	800.8
47.5°	619.7	591.6	409.0	588.5	624.4
50°	483.9	440.2	315.3	437.1	482.3
52.5°	371.5	324.7	243.5	324.7	368.4
55°	290.3	243.5	188.9	243.5	287.2
57.5°	223.2	185.8	143.6	182.6	221.7
60°	170.1	138.9	112.4	138.9	171.7
62.5°	129.6	106.1	85.9	104.6	128.0
65°	98.3	79.6	67.1	79.6	96.8
67.5°	71.8	59.3	51.5	59.3	73.4
70°	53.1	45.3	39.0	43.7	53.1
72.5°	39.0	32.8	29.7	32.8	39.0
75°	26.5	23.4	21.9	23.4	26.5
77.5°	18.7	17.2	15.6	17.2	18.7
80°	12.5	10.9	10.9	12.5	12.5
82.5°	7.8	7.8	7.8	7.8	7.8
85°	4.7	4.7	4.7	4.7	4.7
87.5°	3.1	3.1	3.1	3.1	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)