

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 FEU4C759035 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 FEU4C759035 F4LC-SQ-WH
 Description: 4 INCH 7500 LUMEN FAIL-SAFE LED DOWNLIGHT WITH, 3500K, 90CRI LEDS AND F4LC-SQW TRIM WITH H FINISH
 Light Source: -
 Ballast/Driver: -

Summary

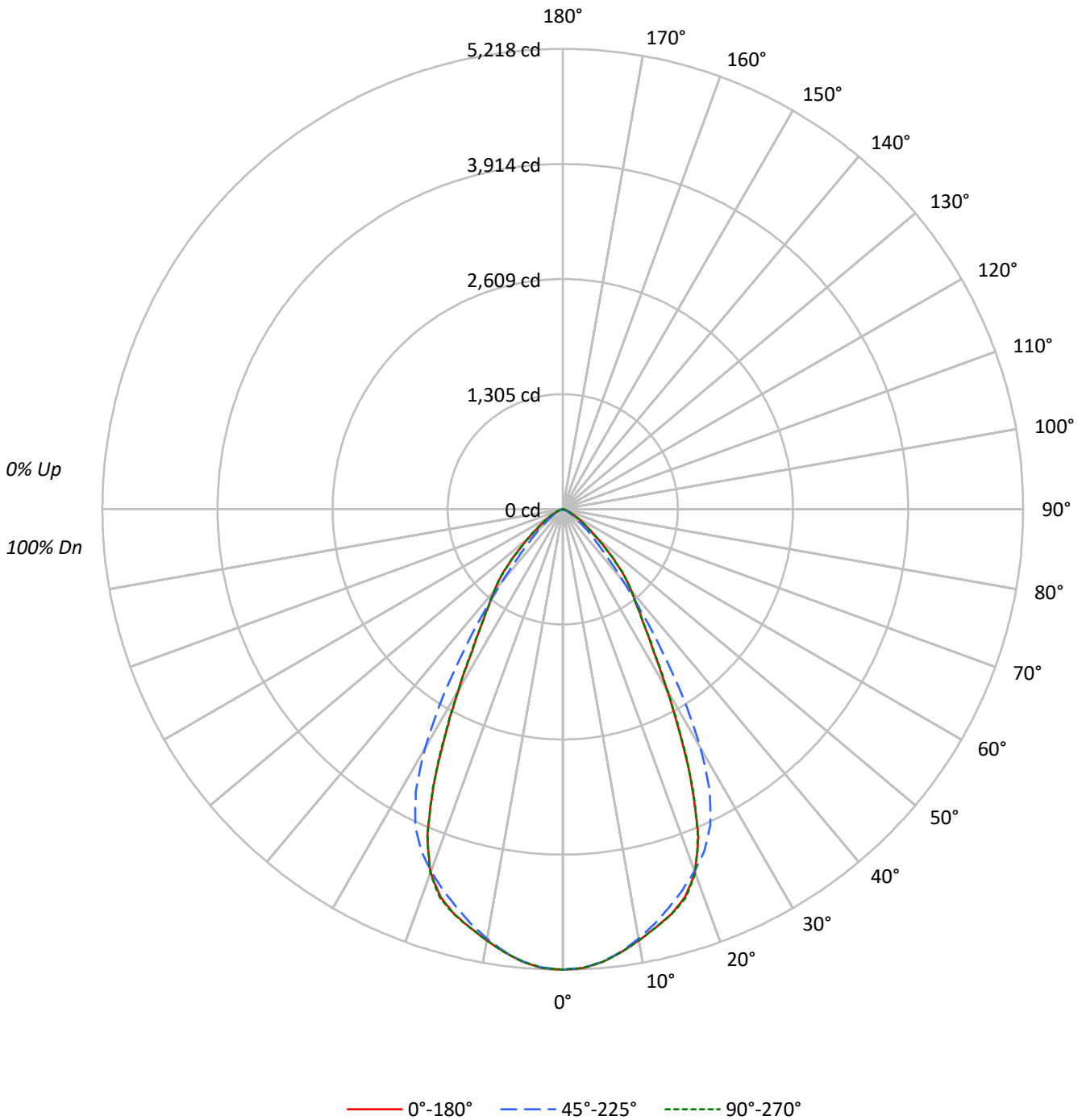
Lumens per Lamp: N/A
 Luminaire Lumens: 5523.0 lumens
 Efficiency: N/A
 Efficacy: 67.8 lumens/watt
 Spacing Criteria (0/90/45): 0.93 / 0.93 / 0.94
 Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
 CIE Type: Direct

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°	503498	503498	503498
5°	498884	498564	498729
10°	486115	484175	486115
15°	474410	465859	474900
20°	449806	448112	450648
25°	368961	421000	370888
30°	263097	347807	263465
35°	189762	230470	190351
40°	152144	133905	152144
45°	116097	78148	115196
50°	76571	49897	76331
55°	51493	33493	50938
60°	34620	22868	34929
65°	23676	16165	23288
70°	15798	11595	15798
75°	10439	8575	10439
80°	7335	6390	7335
85°	5425	5425	5425

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	485.1	8.8
10°-20°	1322.7	23.9
20°-30°	1653.5	29.9
30°-40°	1112.4	20.1
40°-50°	587.4	10.6
50°-60°	238.7	4.3
60°-70°	88.5	1.6
70°-80°	28.6	0.5
80°-90°	6.1	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°	3461.3	62.7
0°-40°	4573.7	82.8
0°-60°	5399.7	97.8
0°-90°	5523.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5523.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5218	5218	5218	5218	5218	
5°	5151	5146	5147	5147	5149	485
15°	4749	4710	4664	4708	4754	1330
25°	3466	3660	3954	3666	3484	1560
35°	1611	1692	1957	1695	1616	1037
45°	851	808	573	805	844	652
55°	306	257	199	257	303	284
65°	104	84	71	84	102	107
75°	28	25	23	25	28	32
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°	5218.2	5218.2	5218.2	5218.2	5218.2
2.5°	5205.0	5201.7	5200.1	5200.1	5201.7
5°	5150.7	5145.8	5147.4	5147.4	5149.1
7.5°	5063.5	5061.9	5056.9	5063.5	5063.5
10°	4961.5	4953.3	4941.7	4954.9	4961.5
12.5°	4856.2	4831.5	4811.7	4831.5	4856.2
15°	4749.2	4709.7	4663.6	4708.1	4754.1
17.5°	4609.3	4569.8	4518.8	4578.1	4622.5
20°	4380.6	4383.9	4364.1	4380.6	4388.8
22.5°	4013.6	4087.7	4191.3	4089.3	4002.1
25°	3465.6	3659.8	3954.4	3666.4	3483.7
27.5°	2878.2	3125.0	3607.2	3139.8	2896.3
30°	2361.4	2580.3	3121.7	2595.1	2364.7
32.5°	1912.2	2075.1	2537.5	2094.8	1933.6
35°	1611.0	1691.7	1956.6	1695.0	1616.0
37.5°	1380.7	1380.7	1453.1	1387.2	1374.1
40°	1207.9	1155.2	1063.1	1153.6	1207.9
42.5°	1046.6	967.6	771.8	964.3	1049.9
45°	850.8	808.0	572.7	804.7	844.2
47.5°	653.3	623.7	431.1	620.4	658.2
50°	510.1	464.1	332.4	460.8	508.5
52.5°	391.7	342.3	256.7	342.3	388.4
55°	306.1	256.7	199.1	256.7	302.8
57.5°	235.3	195.8	151.4	192.5	233.7
60°	179.4	146.5	118.5	146.5	181.0
62.5°	136.6	111.9	90.5	110.3	134.9
65°	103.7	83.9	70.8	83.9	102.0
67.5°	75.7	62.5	54.3	62.5	77.3
70°	56.0	47.7	41.1	46.1	56.0
72.5°	41.1	34.6	31.3	34.6	41.1
75°	28.0	24.7	23.0	24.7	28.0
77.5°	19.7	18.1	16.5	18.1	19.7
80°	13.2	11.5	11.5	13.2	13.2
82.5°	8.2	8.2	8.2	8.2	8.2
85°	4.9	4.9	4.9	4.9	4.9
87.5°	3.3	3.3	3.3	3.3	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)