

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 FEU4C759050 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 FEU4C759050 F4LC-SQ-WH
 Description: 4 INCH 7500 LUMEN FAIL-SAFE LED DOWNLIGHT WITH, 5000K, 90CRI LEDS AND F4LC-SQW TRIM WITH H FINISH
 Light Source: -
 Ballast/Driver: -

Summary

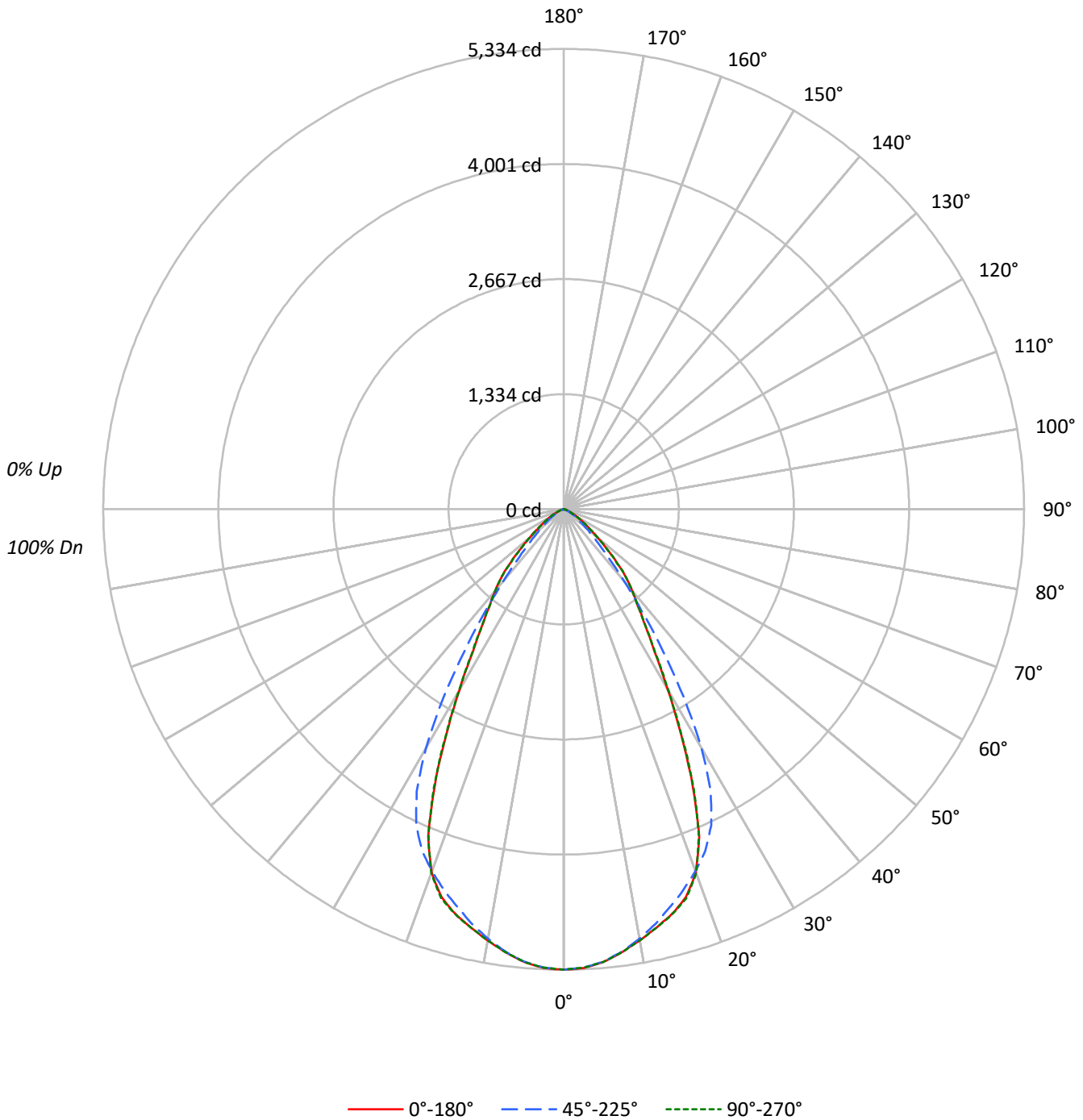
Lumens per Lamp: N/A
 Luminaire Lumens: 5645.0 lumens
 Efficiency: N/A
 Efficacy: 69.3 lumens/watt
 Spacing Criteria (0/90/45): 0.93 / 0.93 / 0.94
 Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
 CIE Type: Direct

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°	514624	514624	514624
5°	509906	509577	509741
10°	496853	494874	496853
15°	484889	476148	485398
20°	459745	458010	460608
25°	377116	430294	379085
30°	268913	355494	269292
35°	193955	235559	194556
40°	155507	136853	155507
45°	118662	79868	117734
50°	78267	51007	78012
55°	52620	34233	52065
60°	35373	23370	35701
65°	24201	16507	23813
70°	16137	11849	16137
75°	10662	8761	10662
80°	7501	6557	7501
85°	5535	5535	5535



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	495.8	8.8
10°-20°	1351.9	23.9
20°-30°	1690.1	29.9
30°-40°	1136.9	20.1
40°-50°	600.3	10.6
50°-60°	244.0	4.3
60°-70°	90.5	1.6
70°-80°	29.2	0.5
80°-90°	6.3	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°	3537.8	62.7
0°-40°	4674.7	82.8
0°-60°	5519.0	97.8
0°-90°	5645.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5645.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5334	5334	5334	5334	5334	
5°	5264	5260	5261	5261	5263	496
15°	4854	4814	4767	4812	4859	1360
25°	3542	3741	4042	3747	3561	1594
35°	1647	1729	2000	1732	1652	1060
45°	870	826	585	822	863	667
55°	313	262	204	262	310	290
65°	106	86	72	86	104	109
75°	29	25	24	25	29	33
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°	5333.5	5333.5	5333.5	5333.5	5333.5
2.5°	5320.0	5316.6	5315.0	5315.0	5316.6
5°	5264.5	5259.5	5261.1	5261.1	5262.8
7.5°	5175.4	5173.7	5168.6	5175.4	5175.4
10°	5071.1	5062.7	5050.9	5064.4	5071.1
12.5°	4963.4	4938.2	4918.0	4938.2	4963.4
15°	4854.1	4813.7	4766.6	4812.1	4859.2
17.5°	4711.1	4670.8	4618.6	4679.2	4724.6
20°	4477.4	4480.7	4460.5	4477.4	4485.8
22.5°	4102.3	4178.0	4283.9	4179.6	4090.5
25°	3542.2	3740.7	4041.7	3747.4	3560.7
27.5°	2941.7	3194.0	3686.8	3209.2	2960.2
30°	2413.6	2637.3	3190.7	2652.4	2417.0
32.5°	1954.4	2120.9	2593.6	2141.1	1976.3
35°	1646.6	1729.0	1999.8	1732.4	1651.7
37.5°	1411.2	1411.2	1485.2	1417.9	1404.4
40°	1234.6	1180.7	1086.5	1179.0	1234.6
42.5°	1069.7	989.0	788.8	985.6	1073.1
45°	869.6	825.8	585.3	822.5	862.8
47.5°	667.7	637.5	440.7	634.1	672.8
50°	521.4	474.3	339.8	470.9	519.7
52.5°	400.3	349.8	262.4	349.8	396.9
55°	312.8	262.4	203.5	262.4	309.5
57.5°	240.5	200.2	154.7	196.8	238.8
60°	183.3	149.7	121.1	149.7	185.0
62.5°	139.6	114.4	92.5	112.7	137.9
65°	106.0	85.8	72.3	85.8	104.3
67.5°	77.4	63.9	55.5	63.9	79.1
70°	57.2	48.8	42.0	47.1	57.2
72.5°	42.0	35.3	32.0	35.3	42.0
75°	28.6	25.2	23.5	25.2	28.6
77.5°	20.2	18.5	16.8	18.5	20.2
80°	13.5	11.8	11.8	13.5	13.5
82.5°	8.4	8.4	8.4	8.4	8.4
85°	5.0	5.0	5.0	5.0	5.0
87.5°	3.4	3.4	3.4	3.4	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)