

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 FEU4C759040 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 FEU4C759040 F4LC-SQ-WH
 Description: 4 INCH 7500 LUMEN FAIL-SAFE LED DOWNLIGHT WITH, 4000K, 90CRI LEDS AND F4LC-SQW TRIM WITH H FINISH
 Light Source: -
 Ballast/Driver: -

Summary

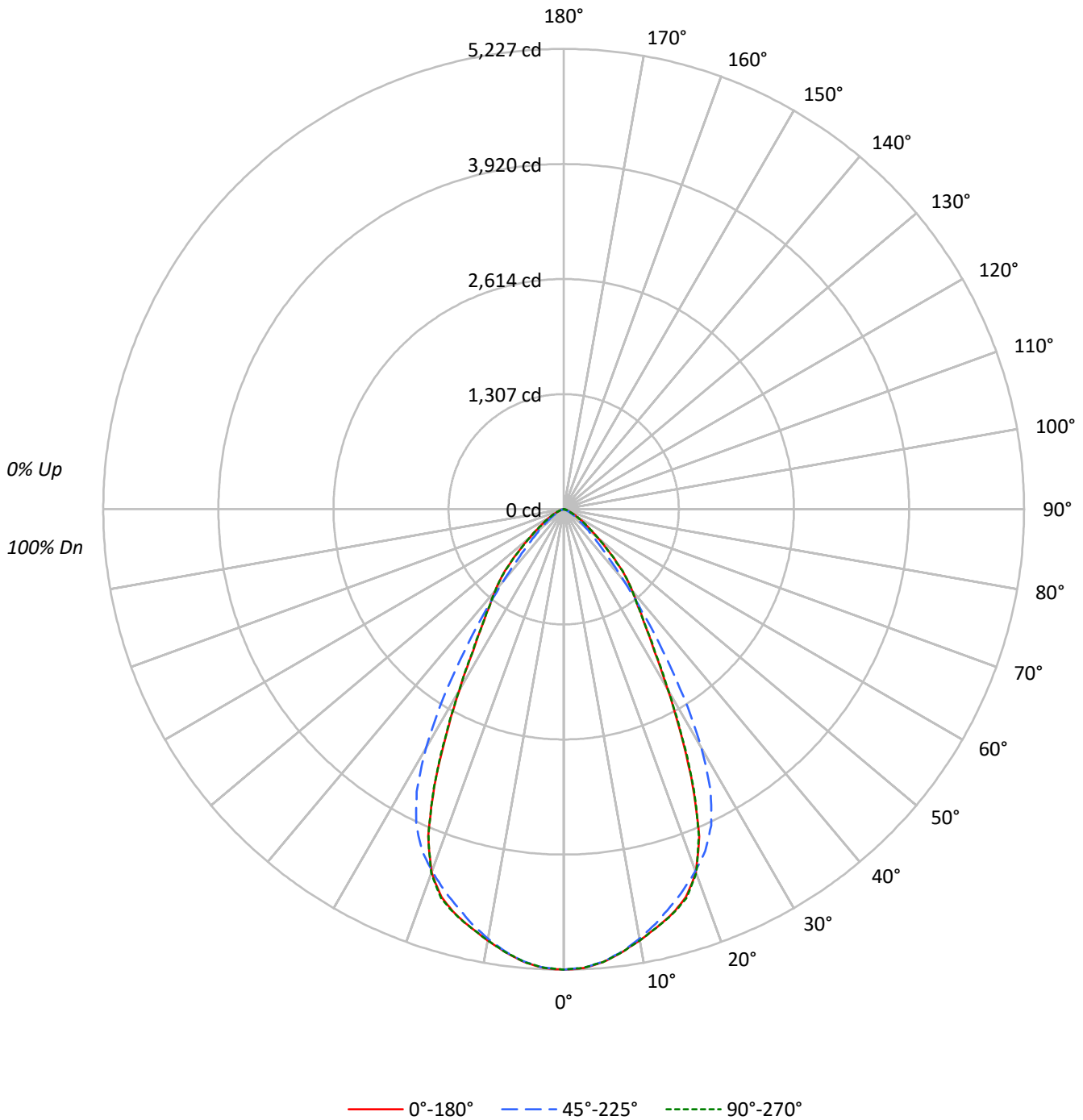
Lumens per Lamp: N/A
 Luminaire Lumens: 5531.9 lumens
 Efficiency: N/A
 Efficacy: 67.9 lumens/watt
 Spacing Criteria (0/90/45): 0.93 / 0.93 / 0.94
 Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
 CIE Type: Direct

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°	504319	504319	504319
5°	499697	499378	499542
10°	486908	484968	486908
15°	475179	466619	475679
20°	450535	448841	451387
25°	369567	421681	371494
30°	263532	348375	263899
35°	190080	230847	190657
40°	152383	134119	152383
45°	116288	78271	115387
50°	76706	49987	76451
55°	51577	33544	51022
60°	34678	22906	34987
65°	23699	16187	23334
70°	15798	11623	15798
75°	10439	8612	10439
80°	7335	6390	7335
85°	5425	5425	5425

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	485.9	8.8
10°-20°	1324.8	23.9
20°-30°	1656.2	29.9
30°-40°	1114.2	20.1
40°-50°	588.3	10.6
50°-60°	239.1	4.3
60°-70°	88.7	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°	3466.9	62.7
0°-40°	4581.1	82.8
0°-60°	5408.5	97.8
0°-90°	5531.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5531.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5227	5227	5227	5227	5227	
5°	5159	5154	5156	5156	5158	486
15°	4757	4717	4671	4716	4762	1333
25°	3471	3666	3961	3672	3489	1562
35°	1614	1694	1960	1698	1619	1038
45°	852	809	574	806	846	653
55°	307	257	199	257	303	284
65°	104	84	71	84	102	107
75°	28	25	23	25	28	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°	5226.7	5226.7	5226.7	5226.7	5226.7
2.5°	5213.5	5210.2	5208.6	5208.6	5210.2
5°	5159.1	5154.2	5155.8	5155.8	5157.5
7.5°	5071.8	5070.1	5065.2	5071.8	5071.8
10°	4969.6	4961.3	4949.8	4963.0	4969.6
12.5°	4864.1	4839.4	4819.6	4839.4	4864.1
15°	4756.9	4717.4	4671.2	4715.7	4761.9
17.5°	4616.8	4577.3	4526.2	4585.5	4630.0
20°	4387.7	4391.0	4371.2	4387.7	4396.0
22.5°	4020.2	4094.3	4198.2	4096.0	4008.6
25°	3471.3	3665.8	3960.8	3672.4	3489.4
27.5°	2882.8	3130.1	3613.0	3144.9	2901.0
30°	2365.3	2584.5	3126.8	2599.3	2368.6
32.5°	1915.3	2078.5	2541.6	2098.3	1936.7
35°	1613.7	1694.4	1959.8	1697.7	1618.6
37.5°	1382.9	1382.9	1455.4	1389.5	1376.3
40°	1209.8	1157.1	1064.8	1155.4	1209.8
42.5°	1048.3	969.2	773.0	965.9	1051.6
45°	852.2	809.3	573.6	806.0	845.6
47.5°	654.4	624.7	431.8	621.4	659.3
50°	511.0	464.8	333.0	461.5	509.3
52.5°	392.3	342.8	257.1	342.8	389.0
55°	306.6	257.1	199.4	257.1	303.3
57.5°	235.7	196.1	151.6	192.8	234.1
60°	179.7	146.7	118.7	146.7	181.3
62.5°	136.8	112.1	90.7	110.4	135.2
65°	103.8	84.1	70.9	84.1	102.2
67.5°	75.8	62.6	54.4	62.6	77.5
70°	56.0	47.8	41.2	46.2	56.0
72.5°	41.2	34.6	31.3	34.6	41.2
75°	28.0	24.7	23.1	24.7	28.0
77.5°	19.8	18.1	16.5	18.1	19.8
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)