

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: **FLDSQ4C70D010 FEU4C709050 F4LC-SQ-H**

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: FLDSQ4C70D010 FEU4C709050 F4LC-SQ-H
 Description: 4 INCH 7000 LUMEN FAIL-SAFE LED DOWNLIGHT WITH, 5000K, 90CRI LEDS AND F4LC-SQ TRIM WITH H FINISH
 Light Source: -
 Ballast/Driver: -

Summary

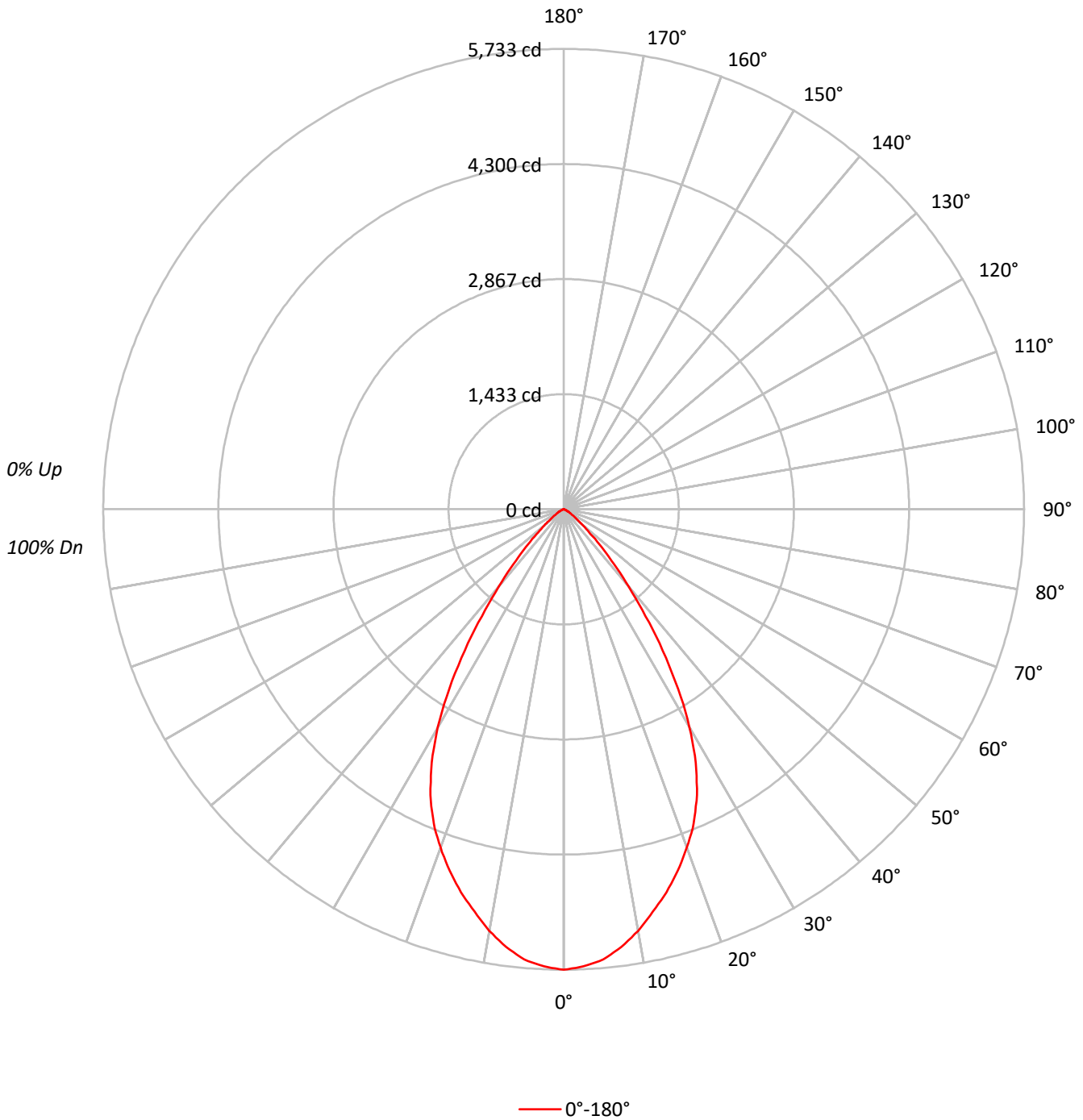
Lumens per Lamp: N/A
 Luminaire Lumens: 5782.0 lumens
 Efficiency: N/A
 Efficacy: 74.1 lumens/watt
 Spacing Criteria (0/90/45): 0.95 / 0.95 / 0.93
 Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
 CIE Type: Direct

Input Watts (W): 78
 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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93		
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	85		
3	101	94	89	85	99	93	88	84	90	86	83	88	84	82	86	83	80	79		
4	96	88	82	77	94	86	81	77	84	80	76	82	78	75	80	77	74	73		
5	90	82	75	71	89	81	75	70	79	74	70	77	73	69	75	72	69	67		
6	86	76	70	65	84	75	69	65	74	68	64	72	68	64	71	67	64	62		
7	81	71	65	60	80	70	64	60	69	64	60	68	63	59	67	62	59	58		
8	77	67	60	56	75	66	60	56	65	59	56	64	59	55	63	58	55	54		
9	73	63	56	52	72	62	56	52	61	56	52	60	55	52	59	55	52	50		
10	69	59	53	49	68	59	53	49	58	52	49	57	52	48	56	52	48	47		

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	553190
5°	545162
10°	522376
15°	493390
20°	460546
25°	418072
30°	349054
35°	252874
40°	158291
45°	90484
50°	47180
55°	26428
60°	16847
65°	9954
70°	7391
75°	3243
80°	4834
85°	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	527.5	9.1
10°-20°	1384.0	23.9
20°-30°	1778.6	30.8
30°-40°	1338.2	23.1
40°-50°	537.5	9.3
50°-60°	152.8	2.6
60°-70°	48.4	0.8
70°-80°	13.8	0.2
80°-90°	1.2	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°	3690.2	63.8
0°-40°	5028.4	87.0
0°-60°	5718.7	98.9
0°-90°	5782.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5782.0	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	5733	
5°	5628	528
15°	4939	1384
25°	3927	1779
35°	2147	1338
45°	663	537
55°	157	153
65°	44	48
75°	9	14
85°	0	1
90°	0	

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CANDELA DISTRIBUTION (FULL):

	0°
0°	5733.2
2.5°	5698.3
5°	5628.5
7.5°	5497.5
10°	5331.6
12.5°	5131.2
15°	4939.2
17.5°	4720.9
20°	4485.2
22.5°	4232.4
25°	3926.9
27.5°	3560.2
30°	3132.9
32.5°	2652.7
35°	2146.8
37.5°	1675.4
40°	1256.7
42.5°	925.0
45°	663.1
47.5°	454.0
50°	314.3
52.5°	218.2
55°	157.1
57.5°	113.5
60°	87.3
62.5°	61.1
65°	43.6
67.5°	34.9
70°	26.2
72.5°	17.5
75°	8.7
77.5°	8.7
80°	8.7
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)