

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: **FLDSQ4C100D010 FEU4C1009027 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: FLDSQ4C100D010 FEU4C1009027 F4LC-SQ-H
 Description: 4 INCH 10000 LUMEN FAIL-SAFE LED DOWNLIGHT WITH, 2700K, 90CRI LEDS AND F4LC-SQ TRIM WITH H FINISH
 Light Source: -
 Ballast/Driver: -

Summary

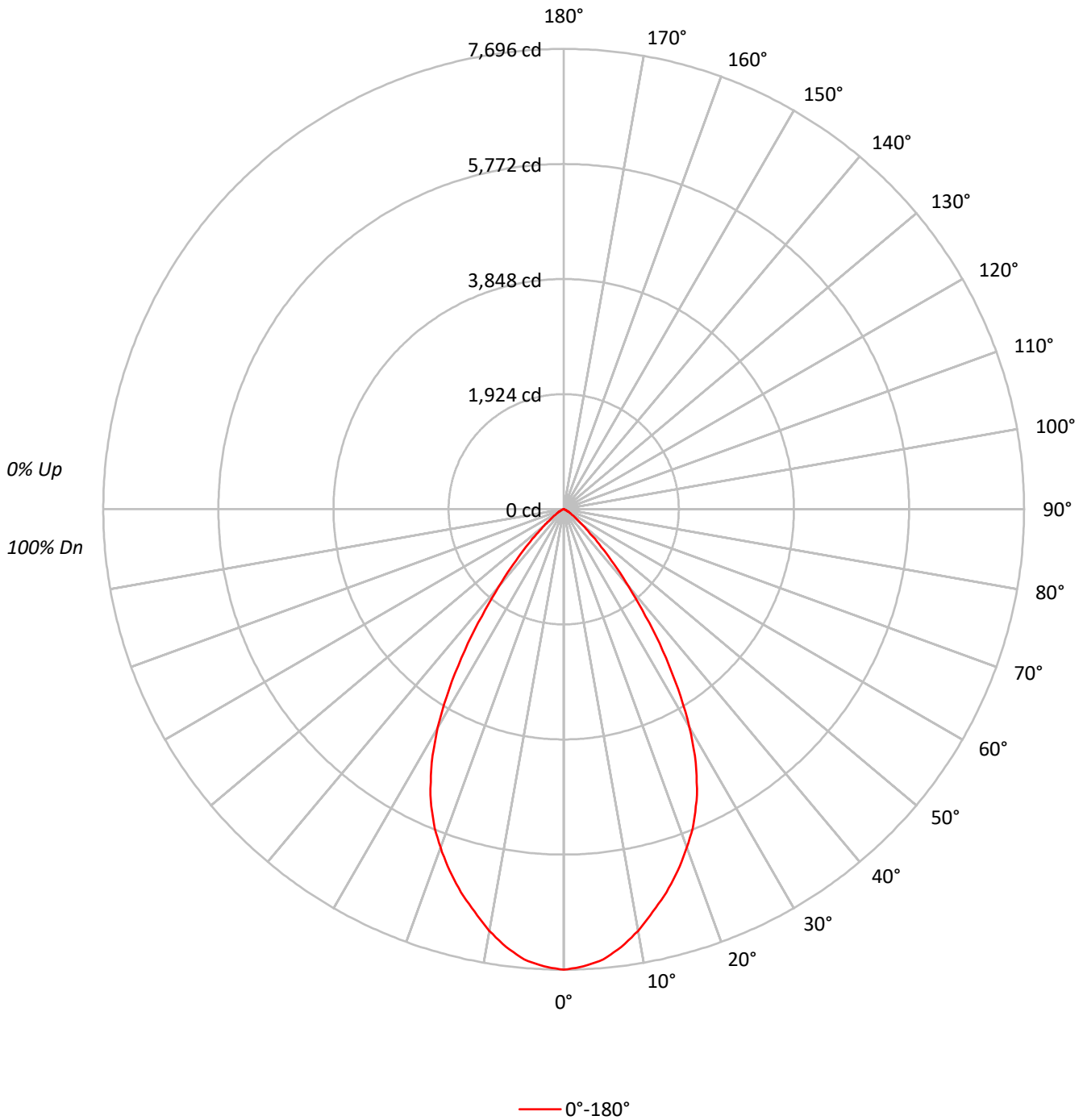
Lumens per Lamp: N/A
 Luminaire Lumens: 7761.0 lumens
 Efficiency: N/A
 Efficacy: 67.8 lumens/watt
 Spacing Criteria (0/90/45): 0.95 / 0.95 / 0.93
 Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
 CIE Type: Direct

Input Watts (W): 114.4
 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	100	100
1	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93	93	93
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	85	85	85
3	101	94	89	85	99	93	88	84	90	86	83	88	84	82	86	83	80	79	79	79
4	96	88	82	77	94	86	81	77	84	80	76	82	78	75	80	77	74	73	73	73
5	90	82	75	71	89	81	75	70	79	74	70	77	73	69	75	72	69	67	67	67
6	86	76	70	65	84	75	69	65	74	68	64	72	68	64	71	67	64	62	62	62
7	81	71	65	60	80	70	64	60	69	64	60	68	63	59	67	62	59	58	58	58
8	77	67	60	56	75	66	60	56	65	59	56	64	59	55	63	58	55	54	54	54
9	73	63	56	52	72	62	56	52	61	56	52	60	55	52	59	55	52	50	50	50
10	69	59	53	49	68	59	53	49	58	52	49	57	52	48	56	52	48	47	47	47

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	742530
5°	731748
10°	701175
15°	662258
20°	618183
25°	561170
30°	468526
35°	339427
40°	212477
45°	121446
50°	63316
55°	35478
60°	22617
65°	13379
70°	9930
75°	4362
80°	6501
85°	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	708.1	9.1
10°-20°	1857.7	23.9
20°-30°	2387.4	30.8
30°-40°	1796.3	23.1
40°-50°	721.4	9.3
50°-60°	205.1	2.6
60°-70°	64.9	0.8
70°-80°	18.5	0.2
80°-90°	1.6	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°	4953.2	63.8
0°-40°	6749.5	87.0
0°-60°	7676.0	98.9
0°-90°	7761.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7761.0	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	7696	
5°	7555	708
15°	6630	1858
25°	5271	2387
35°	2882	1796
45°	890	721
55°	211	205
65°	59	65
75°	12	18
85°	0	2
90°	0	

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CANDELA DISTRIBUTION (FULL):

0°	
0°	7695.5
2.5°	7648.6
5°	7554.9
7.5°	7379.1
10°	7156.5
12.5°	6887.5
15°	6629.7
17.5°	6336.8
20°	6020.4
22.5°	5681.1
25°	5271.0
27.5°	4778.8
30°	4205.2
32.5°	3560.7
35°	2881.6
37.5°	2248.8
40°	1686.9
42.5°	1241.6
45°	890.0
47.5°	609.3
50°	421.8
52.5°	292.9
55°	210.9
57.5°	152.3
60°	117.2
62.5°	82.0
65°	58.6
67.5°	46.9
70°	35.2
72.5°	23.4
75°	11.7
77.5°	11.7
80°	11.7
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)