

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: **FLDSQ4C50D010 FEU4C509040 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: FLDSQ4C50D010 FEU4C509040 F4LC-SQ-H
 Description: 4 INCH 5000 LUMEN FAIL-SAFE LED DOWNLIGHT WITH, 4000K, 90CRI LEDS AND F4LC-SQ TRIM WITH H FINISH
 Light Source: -
 Ballast/Driver: -

Summary

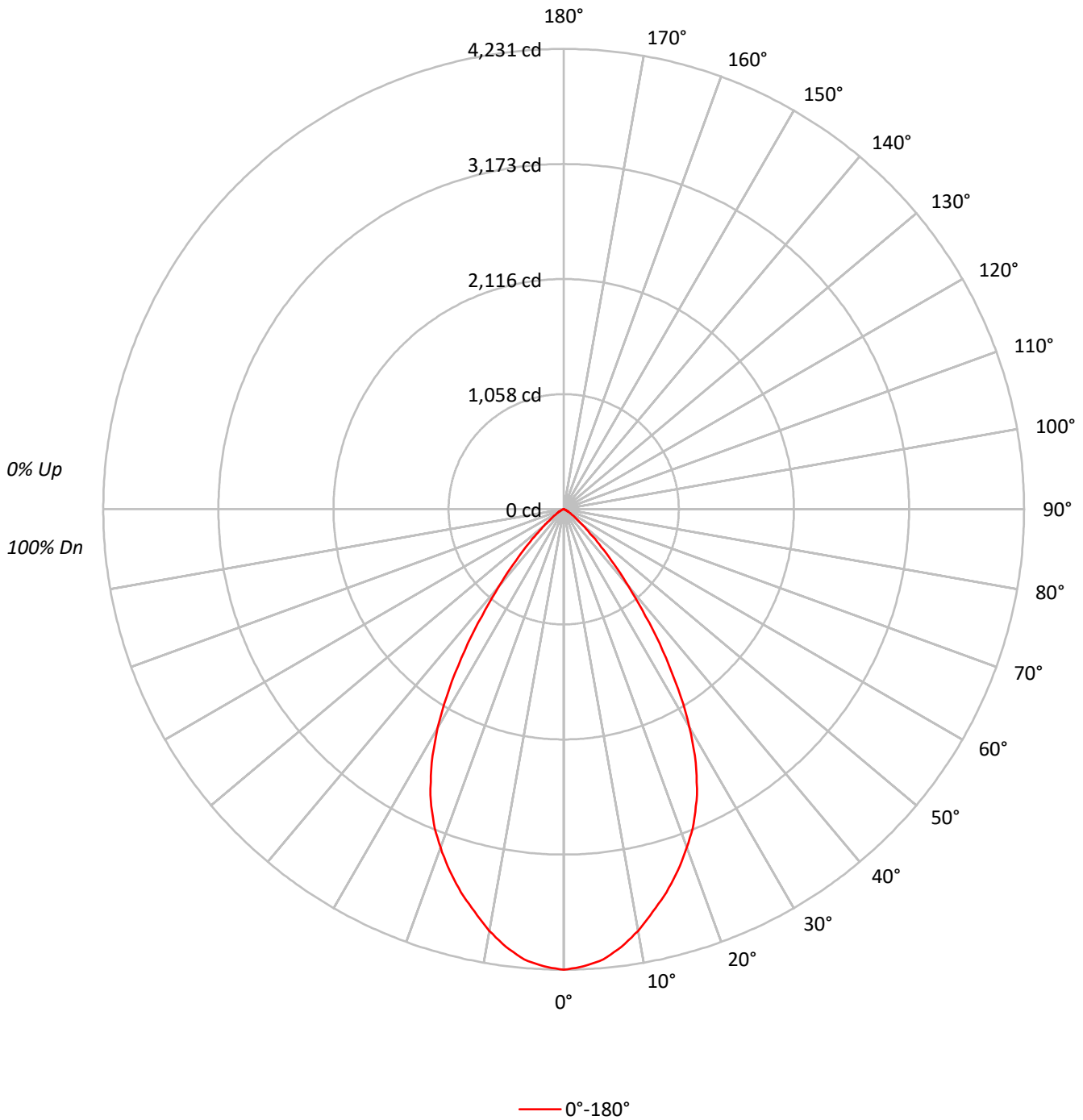
Lumens per Lamp: N/A
 Luminaire Lumens: 4267.0 lumens
 Efficiency: N/A
 Efficacy: 73.1 lumens/watt
 Spacing Criteria (0/90/45): 0.95 / 0.95 / 0.93
 Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
 CIE Type: Direct

Input Watts (W): 58.4
 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	0
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°	408245
5°	402317
10°	385502
15°	364109
20°	339875
25°	308532
30°	257593
35°	186617
40°	116813
45°	66768
50°	34811
55°	19514
60°	12428
65°	7352
70°	5445
75°	2386
80°	3556
85°	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	389.3	9.1
10°-20°	1021.4	23.9
20°-30°	1312.6	30.8
30°-40°	987.6	23.1
40°-50°	396.6	9.3
50°-60°	112.8	2.6
60°-70°	35.7	0.8
70°-80°	10.1	0.2
80°-90°	0.9	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°	2723.3	63.8
0°-40°	3710.9	87.0
0°-60°	4220.3	98.9
0°-90°	4267.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4267.0	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	4231	
5°	4154	389
15°	3645	1021
25°	2898	1313
35°	1584	988
45°	489	397
55°	116	113
65°	32	36
75°	6	10
85°	0	1
90°	0	

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CANDELA DISTRIBUTION (FULL):

0°	
0°	4231.0
2.5°	4205.2
5°	4153.7
7.5°	4057.0
10°	3934.6
12.5°	3786.8
15°	3645.0
17.5°	3484.0
20°	3310.0
22.5°	3123.5
25°	2898.0
27.5°	2627.4
30°	2312.0
32.5°	1957.7
35°	1584.3
37.5°	1236.4
40°	927.4
42.5°	682.6
45°	489.3
47.5°	335.0
50°	231.9
52.5°	161.1
55°	116.0
57.5°	83.8
60°	64.4
62.5°	45.1
65°	32.2
67.5°	25.8
70°	19.3
72.5°	12.9
75°	6.4
77.5°	6.4
80°	6.4
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)