

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: **FLDSQ4C20D010 FEU4C209027 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: FLDSQ4C20D010 FEU4C209027 F4LC-SQ-H
 Description: 4 INCH 2000 LUMEN FAIL-SAFE LED DOWNLIGHT WITH, 2700K, 90CRI LEDS AND F4LC-SQ TRIM WITH H FINISH
 Light Source: -
 Ballast/Driver: -

Summary

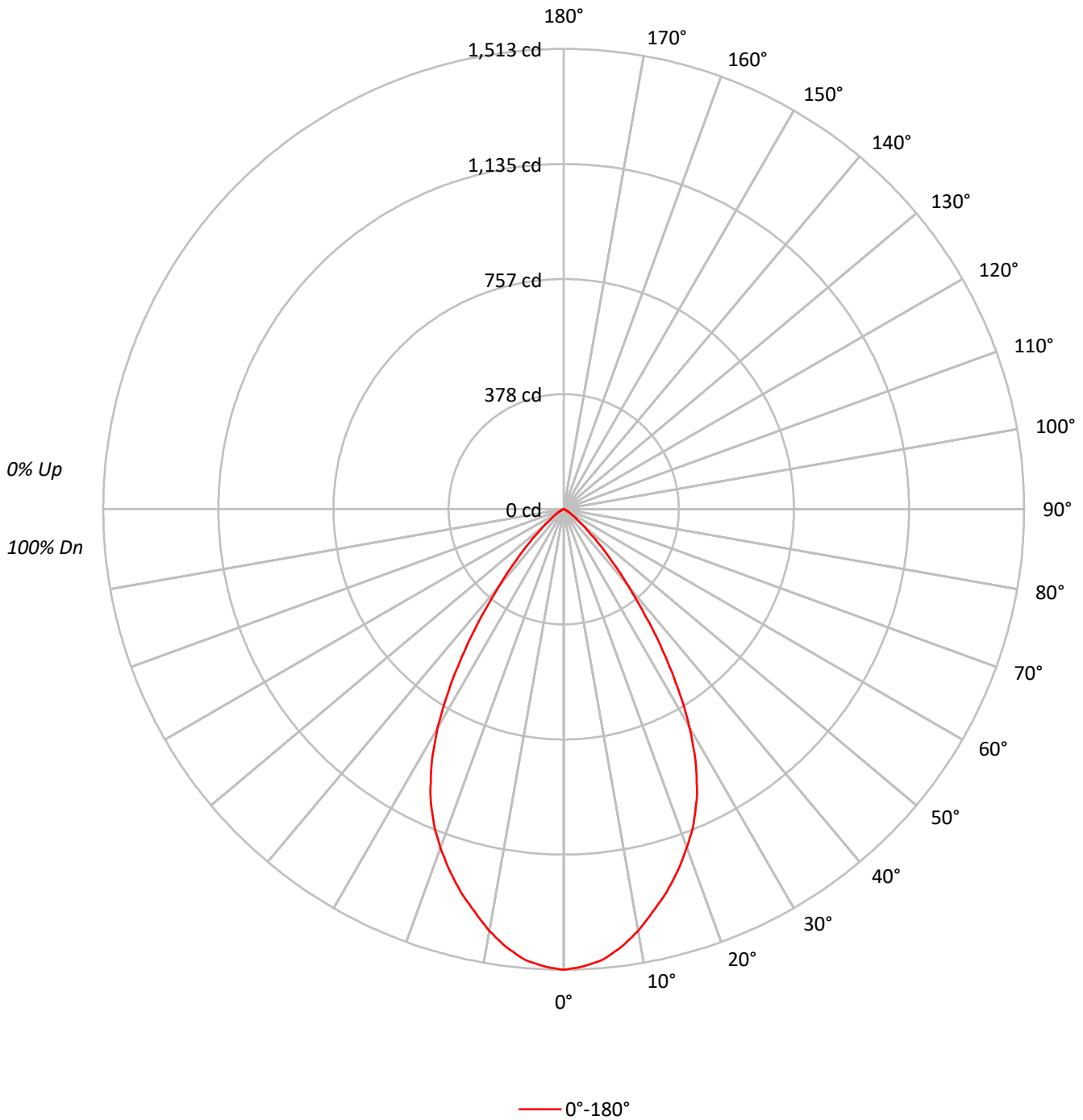
Lumens per Lamp: N/A
 Luminaire Lumens: 1526.0 lumens
 Efficiency: N/A
 Efficacy: 70.0 lumens/watt
 Spacing Criteria (0/90/45): 0.95 / 0.95 / 0.93
 Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
 CIE Type: Direct

Input Watts (W): 21.8
 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°	145997
5°	143882
10°	137864
15°	130220
20°	121554
25°	110339
30°	92119
35°	66740
40°	41780
45°	23880
50°	12444
55°	6981
60°	4438
65°	2626
70°	1947
75°	857
80°	1278
85°	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.2	9.1
10°-20°	365.3	23.9
20°-30°	469.4	30.8
30°-40°	353.2	23.1
40°-50°	141.8	9.3
50°-60°	40.3	2.6
60°-70°	12.7	0.8
70°-80°	3.6	0.2
80°-90°	0.3	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°	973.9	63.8
0°-40°	1327.1	87.0
0°-60°	1509.3	98.9
0°-90°	1526.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1526.0	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	1513	
5°	1486	139
15°	1304	365
25°	1036	469
35°	567	353
45°	175	142
55°	42	40
65°	12	13
75°	2	4
85°	0	0
90°	0	

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CANDELA DISTRIBUTION (FULL):

0°	
0°	1513.1
2.5°	1503.9
5°	1485.5
7.5°	1450.9
10°	1407.1
12.5°	1354.2
15°	1303.6
17.5°	1246.0
20°	1183.8
22.5°	1117.0
25°	1036.4
27.5°	939.6
30°	826.8
32.5°	700.1
35°	566.6
37.5°	442.2
40°	331.7
42.5°	244.1
45°	175.0
47.5°	119.8
50°	82.9
52.5°	57.6
55°	41.5
57.5°	30.0
60°	23.0
62.5°	16.1
65°	11.5
67.5°	9.2
70°	6.9
72.5°	4.6
75°	2.3
77.5°	2.3
80°	2.3
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)