

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: **FLDSQ4C65D010 FEU4C659050 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: FLDSQ4C65D010 FEU4C659050 F4LC-SQ-H  
 Description: 4 INCH 6500 LUMEN FAIL-SAFE LED DOWNLIGHT WITH, 5000K, 90CRI LEDS AND F4LC-SQ TRIM WITH H FINISH  
 Light Source: -  
 Ballast/Driver: -

**Summary**

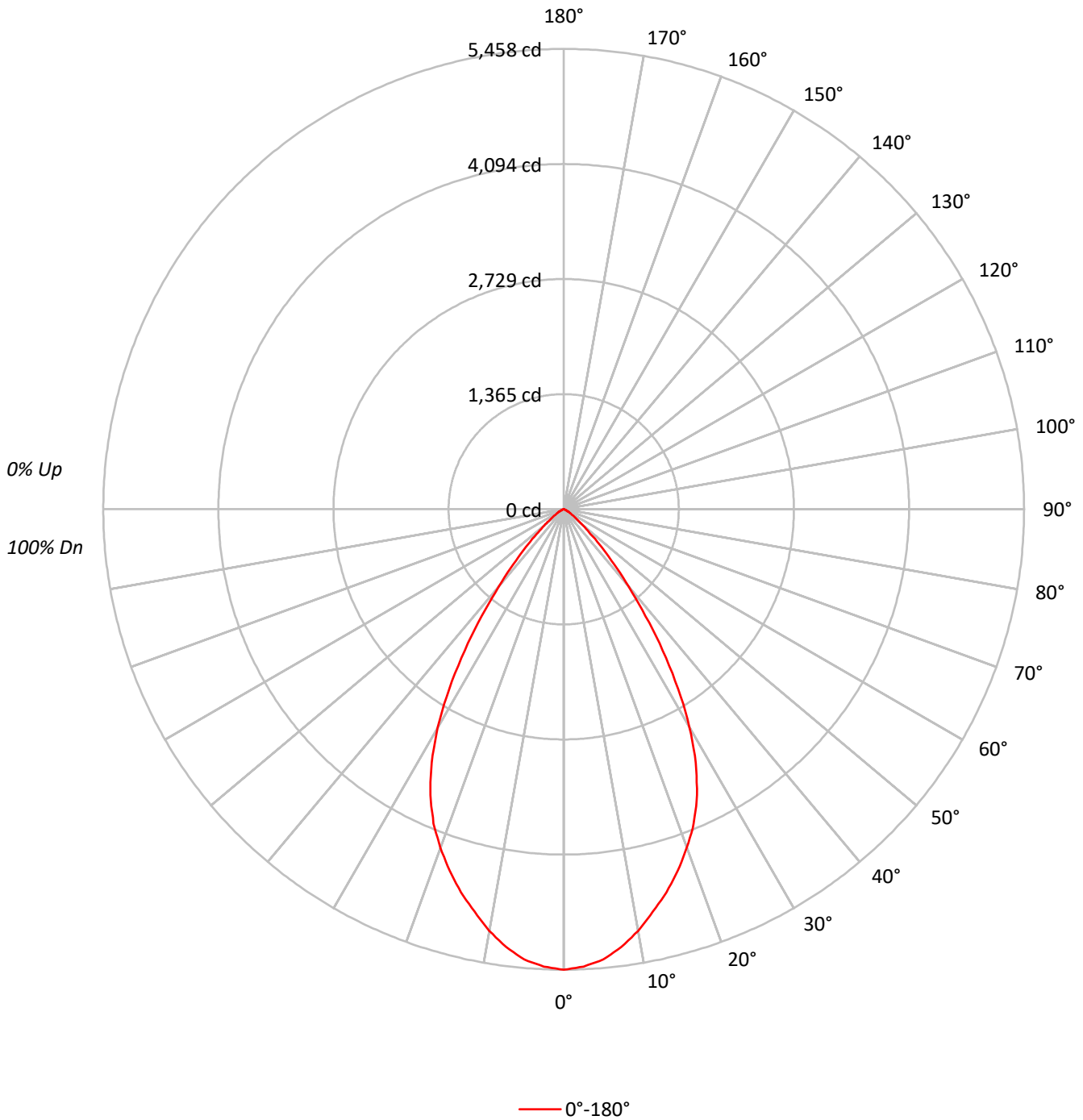
Lumens per Lamp: N/A  
 Luminaire Lumens: 5505.0 lumens  
 Efficiency: N/A  
 Efficacy: 76.0 lumens/watt  
 Spacing Criteria (0/90/45): 0.95 / 0.95 / 0.93  
 Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
 CIE Type: Direct

Input Watts (W): 72.4  
 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°	526685
5°	519040
10°	497353
15°	469755
20°	438480
25°	398047
30°	332331
35°	240753
40°	150708
45°	86145
50°	44913
55°	25166
60°	16036
65°	9498
70°	7025
75°	3094
80°	4612
85°	0

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	502.3	9.1
10°-20°	1317.7	23.9
20°-30°	1693.5	30.8
30°-40°	1274.1	23.1
40°-50°	511.7	9.3
50°-60°	145.5	2.6
60°-70°	46.1	0.8
70°-80°	13.1	0.2
80°-90°	1.1	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°	3513.4	63.8
0°-40°	4787.5	87.0
0°-60°	5444.7	98.9
0°-90°	5505.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5505.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	5458	
5°	5359	502
15°	4703	1318
25°	3739	1693
35°	2044	1274
45°	631	512
55°	150	145
65°	42	46
75°	8	13
85°	0	1
90°	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	5458.5
2.5°	5425.3
5°	5358.8
7.5°	5234.1
10°	5076.2
12.5°	4885.4
15°	4702.6
17.5°	4494.8
20°	4270.3
22.5°	4029.7
25°	3738.8
27.5°	3389.7
30°	2982.8
32.5°	2525.6
35°	2043.9
37.5°	1595.1
40°	1196.5
42.5°	880.7
45°	631.3
47.5°	432.2
50°	299.2
52.5°	207.8
55°	149.6
57.5°	108.1
60°	83.1
62.5°	58.2
65°	41.6
67.5°	33.2
70°	24.9
72.5°	16.6
75°	8.3
77.5°	8.3
80°	8.3
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)