

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 FEU4C709030 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 FEU4C709030 F4LC-SQ-H
 Description: 4 INCH 7000 LUMEN FAIL-SAFE LED DOWNLIGHT WITH, 3000K, 90CRI LEDS AND F4LC-SQ TRIM WITH H FINISH
 Light Source: -
 Ballast/Driver: -

Summary

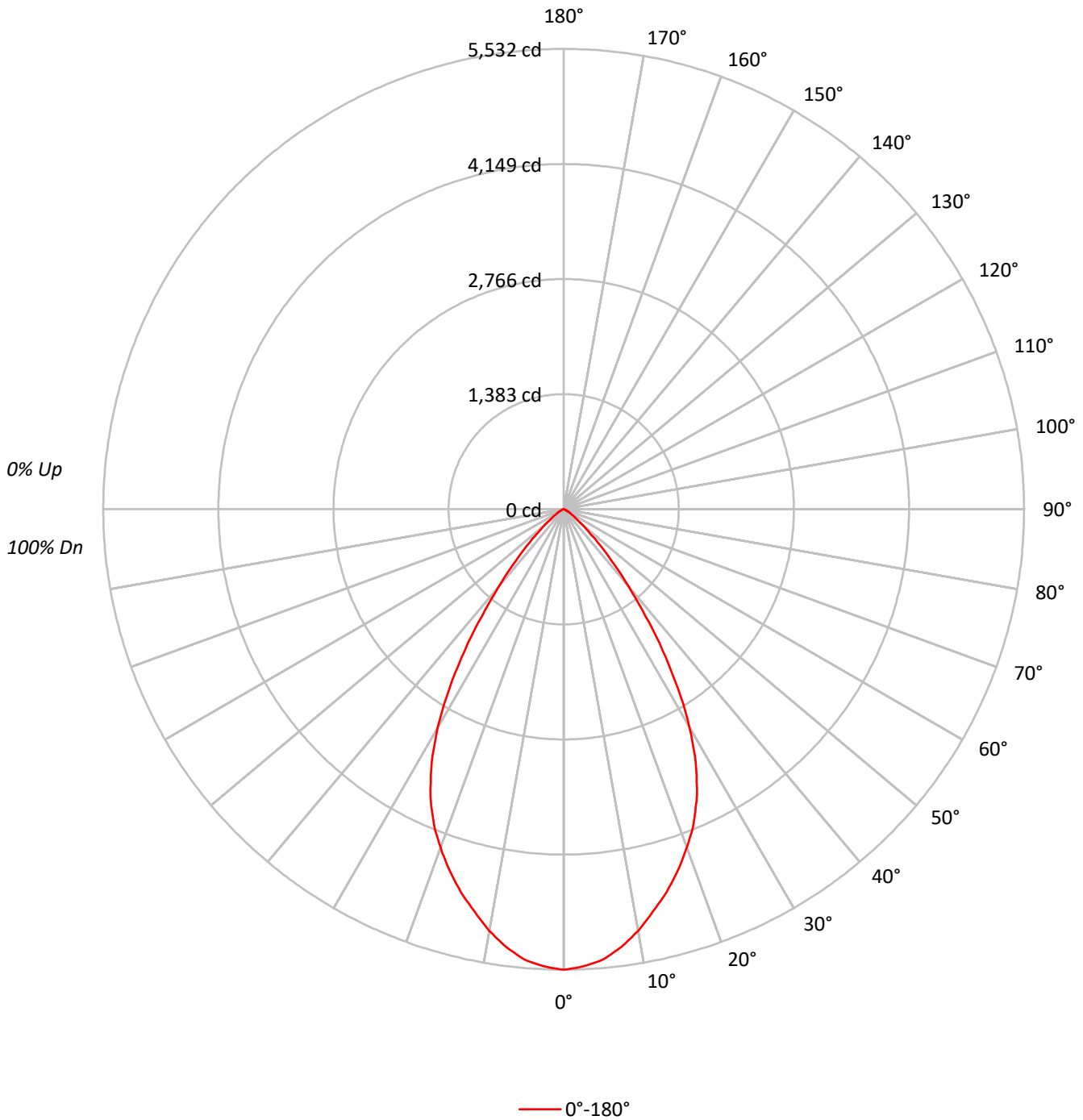
Lumens per Lamp: N/A
 Luminaire Lumens: 5579.0 lumens
 Efficiency: N/A
 Efficacy: 71.5 lumens/watt
 Spacing Criteria (0/90/45): 0.95 / 0.95 / 0.93
 Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
 CIE Type: Direct

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°	533767
5°	526014
10°	504035
15°	476068
20°	444384
25°	403391
30°	336799
35°	243993
40°	152736
45°	87304
50°	45513
55°	25503
60°	16249
65°	9612
70°	7138
75°	3132
80°	4668
85°	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	509.0	9.1
10°-20°	1335.4	23.9
20°-30°	1716.2	30.8
30°-40°	1291.2	23.1
40°-50°	518.6	9.3
50°-60°	147.4	2.6
60°-70°	46.7	0.8
70°-80°	13.3	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°	3560.6	63.8
0°-40°	4851.9	87.0
0°-60°	5517.9	98.9
0°-90°	5579.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5579.0	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	5532	
5°	5431	509
15°	4766	1335
25°	3789	1716
35°	2071	1291
45°	640	519
55°	152	147
65°	42	47
75°	8	13
85°	0	1
90°	0	

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CANDELA DISTRIBUTION (FULL):

	0°
0°	5531.9
2.5°	5498.2
5°	5430.8
7.5°	5304.5
10°	5144.4
12.5°	4951.1
15°	4765.8
17.5°	4555.2
20°	4327.8
22.5°	4083.9
25°	3789.0
27.5°	3435.2
30°	3022.9
32.5°	2559.6
35°	2071.4
37.5°	1616.5
40°	1212.6
42.5°	892.5
45°	639.8
47.5°	438.0
50°	303.2
52.5°	210.6
55°	151.6
57.5°	109.5
60°	84.2
62.5°	59.0
65°	42.1
67.5°	33.7
70°	25.3
72.5°	16.8
75°	8.4
77.5°	8.4
80°	8.4
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)