

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: **FLDSQ4C35D010 FEU4C359027 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: FLDSQ4C35D010 FEU4C359027 F4LC-SQ-H
Description: 4 INCH 3500 LUMEN FAIL-SAFE LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND F4LC-SQ TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

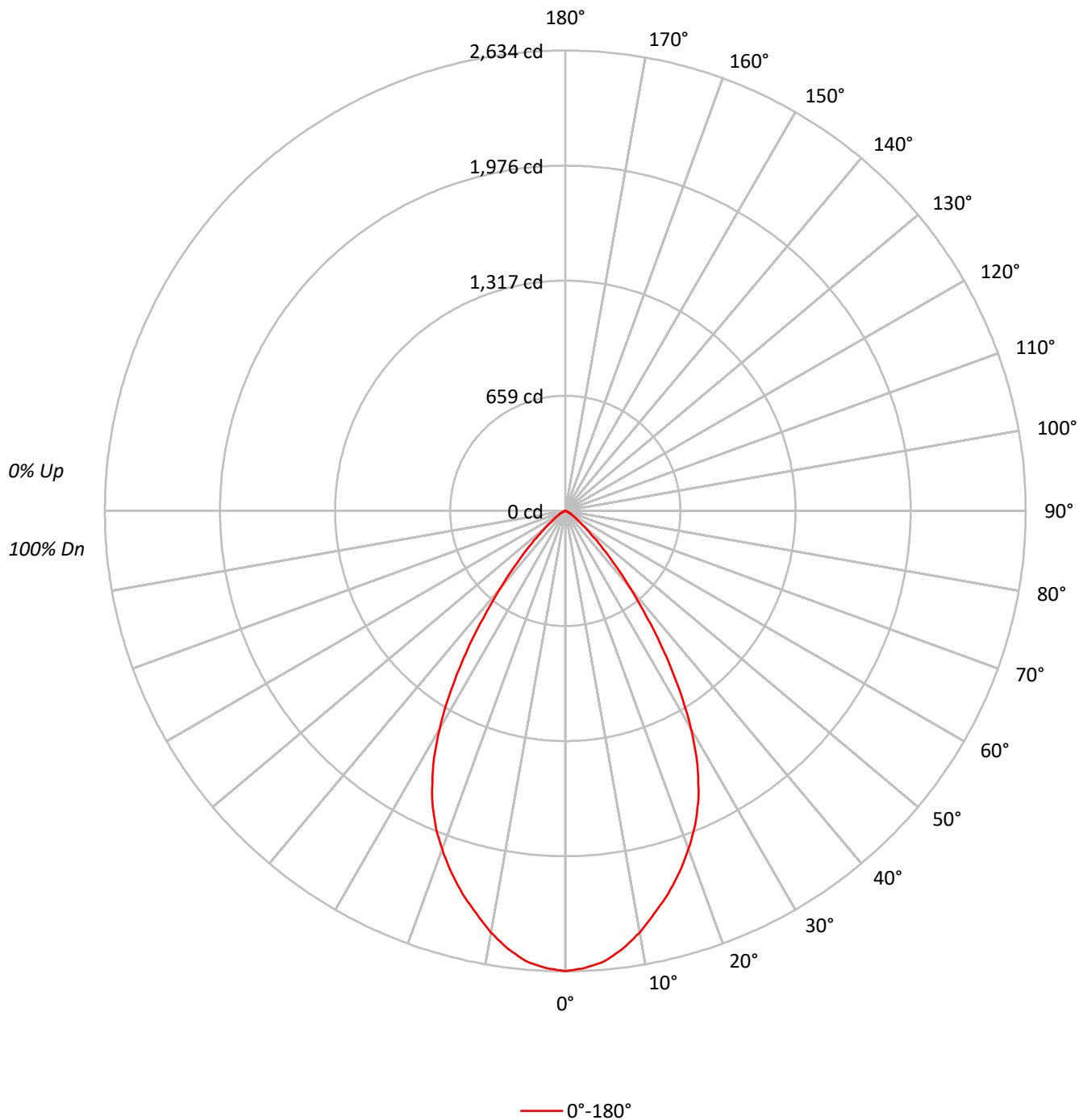
Lumens per Lamp: N/A
Luminaire Lumens: 2656.0 lumens
Efficiency: N/A
Efficacy: 65.7 lumens/watt
Spacing Criteria (0/90/45): 0.95 / 0.95 / 0.93
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 40.4
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
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°	254113
5°	250425
10°	239956
15°	226636
20°	211554
25°	192039
30°	160338
35°	116154
40°	72715
45°	41564
50°	21676
55°	12146
60°	7738
65°	4589
70°	3385
75°	1491
80°	2223
85°	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	242.3	9.1
10°-20°	635.7	23.9
20°-30°	817.0	30.8
30°-40°	614.7	23.1
40°-50°	246.9	9.3
50°-60°	70.2	2.6
60°-70°	22.2	0.8
70°-80°	6.3	0.2
80°-90°	0.5	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°	1695.1	63.8
0°-40°	2309.8	87.0
0°-60°	2626.9	98.9
0°-90°	2656.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2656.0	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2634	
5°	2586	242
15°	2269	636
25°	1804	817
35°	986	615
45°	305	247
55°	72	70
65°	20	22
75°	4	6
85°	0	1
90°	0	

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CANDELA DISTRIBUTION (FULL):

0°	
0°	2633.6
2.5°	2617.5
5°	2585.5
7.5°	2525.3
10°	2449.1
12.5°	2357.1
15°	2268.8
17.5°	2168.6
20°	2060.3
22.5°	1944.2
25°	1803.8
27.5°	1635.4
30°	1439.1
32.5°	1218.5
35°	986.1
37.5°	769.6
40°	577.3
42.5°	424.9
45°	304.6
47.5°	208.5
50°	144.4
52.5°	100.3
55°	72.2
57.5°	52.1
60°	40.1
62.5°	28.1
65°	20.1
67.5°	16.0
70°	12.0
72.5°	8.0
75°	4.0
77.5°	4.0
80°	4.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)