

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: **FLDSQ4C60D010 FEU4C609035 F4LC-SQ-H**

Issue Date: 12/13/2022

Tested By:

Approved By:



Cooper Lighting Solutions laboratories have been accredited by National Voluntary Laboratory Accreditation Program (NVLAP) that it adheres to the requirements of ISO/IEC 17025:2005 and appropriate IESNA test methods. This report must not be used to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the Federal Government. Results contained in this report are valid for luminaire sample tested, as supplied by requestor. Information related to the luminaire tested has been supplied by requestor and can affect the validity of the test results. Report shall not be reproduced except in full without approval of Cooper Lighting Solutions Lighting Laboratory. Test performed at address noted above.

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: FLDSQ4C60D010 FEU4C609035 F4LC-SQ-H
 Description: 4 INCH 6000 LUMEN FAIL-SAFE LED DOWNLIGHT WITH, 3500K, 90CRI LEDS AND F4LC-SQ TRIM WITH H FINISH
 Light Source: -
 Ballast/Driver: -

Summary

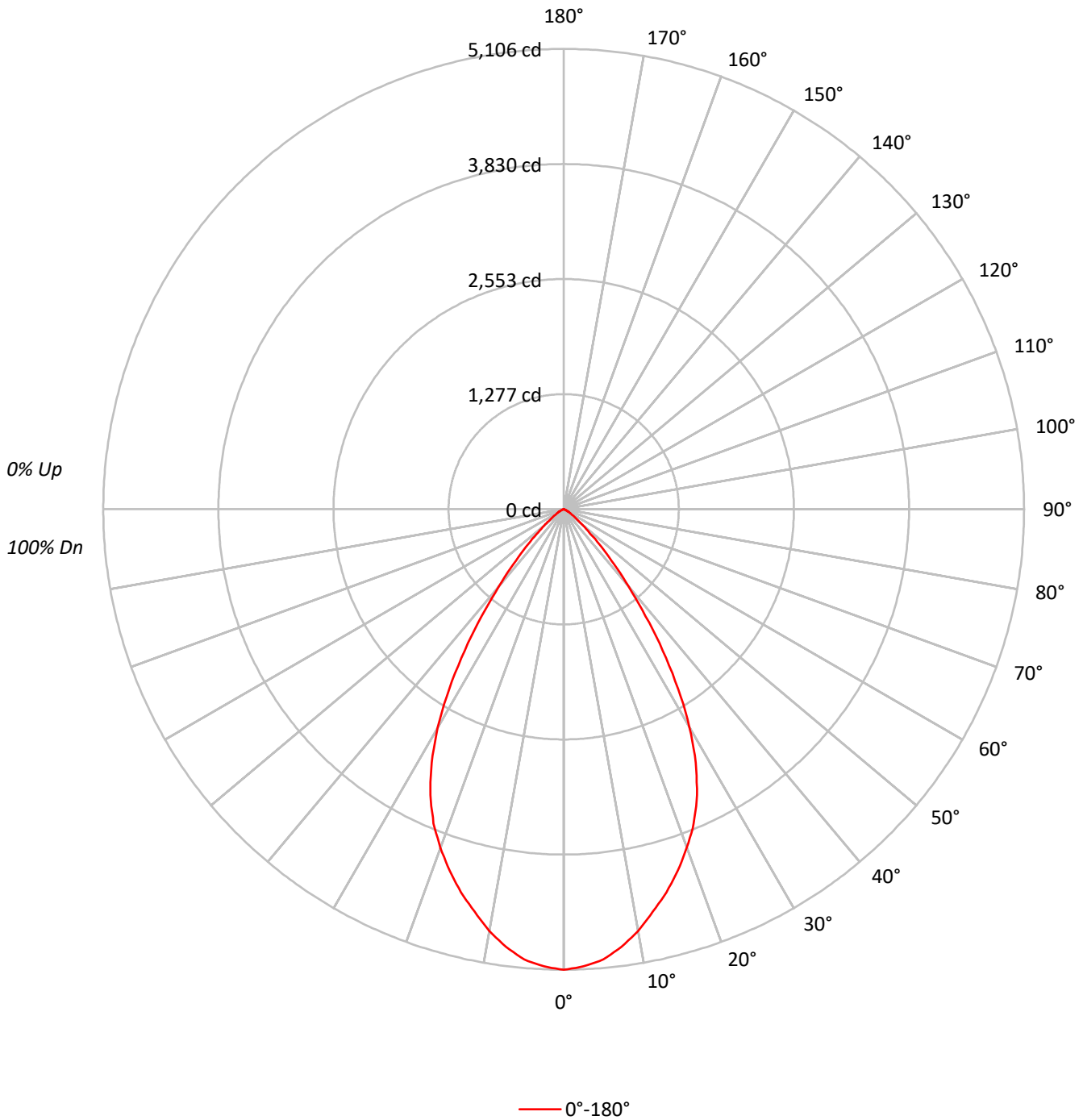
Lumens per Lamp: N/A
 Luminaire Lumens: 5150.0 lumens
 Efficiency: N/A
 Efficacy: 71.5 lumens/watt
 Spacing Criteria (0/90/45): 0.95 / 0.95 / 0.93
 Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
 CIE Type: Direct

Input Watts (W): 72
 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

TEST NUMBER: P#
CATALOG NUMBER: FLDSQ4C60D010 FEU4C609035 F4LC-SQ-H

Luminous Intensity Polar Plot



TEST NUMBER: P#
 CATALOG NUMBER: FLDSQ4C60D010 FEU4C609035 F4LC-SQ-H

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	100	
1	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93	93	
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	85	85	
3	101	94	89	85	99	93	88	84	90	86	83	88	84	82	86	83	80	79	79	
4	96	88	82	77	94	86	81	77	84	80	76	82	78	75	80	77	74	73	73	
5	90	82	75	71	89	81	75	70	79	74	70	77	73	69	75	72	69	67	67	
6	86	76	70	65	84	75	69	65	74	68	64	72	68	64	71	67	64	62	62	
7	81	71	65	60	80	70	64	60	69	64	60	68	63	59	67	62	59	58	58	
8	77	67	60	56	75	66	60	56	65	59	56	64	59	55	63	58	55	54	54	
9	73	63	56	52	72	62	56	52	61	56	52	60	55	52	59	55	52	50	50	
10	69	59	53	49	68	59	53	49	58	52	49	57	52	48	56	52	48	47	47	

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	492721
5°	485566
10°	465285
15°	439458
20°	410212
25°	372378
30°	310895
35°	225229
40°	140997
45°	80591
50°	42016
55°	23551
60°	15014
65°	8881
70°	6573
75°	2908
80°	4334
85°	0

TEST NUMBER: P#
 CATALOG NUMBER: FLDSQ4C60D010 FEU4C609035 F4LC-SQ-H

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	469.9	9.1
10°-20°	1232.7	23.9
20°-30°	1584.2	30.8
30°-40°	1191.9	23.1
40°-50°	478.7	9.3
50°-60°	136.1	2.6
60°-70°	43.1	0.8
70°-80°	12.3	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°	3286.8	63.8
0°-40°	4478.8	87.0
0°-60°	5093.6	98.9
0°-90°	5150.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5150.0	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	5106	
5°	5013	470
15°	4399	1233
25°	3498	1584
35°	1912	1192
45°	591	479
55°	140	136
65°	39	43
75°	8	12
85°	0	1
90°	0	

TEST NUMBER: P#
CATALOG NUMBER: FLDSQ4C60D010 FEU4C609035 F4LC-SQ-H

CANDELA DISTRIBUTION (FULL):

	0°
0°	5106.5
2.5°	5075.4
5°	5013.2
7.5°	4896.6
10°	4748.9
12.5°	4570.4
15°	4399.3
17.5°	4204.9
20°	3995.0
22.5°	3769.8
25°	3497.7
27.5°	3171.1
30°	2790.4
32.5°	2362.8
35°	1912.1
37.5°	1492.2
40°	1119.4
42.5°	823.9
45°	590.6
47.5°	404.3
50°	279.9
52.5°	194.4
55°	140.0
57.5°	101.1
60°	77.8
62.5°	54.4
65°	38.9
67.5°	31.1
70°	23.3
72.5°	15.6
75°	7.8
77.5°	7.8
80°	7.8
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)