

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 FEU4C609040 F4LC-SQ-WLI**

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: FLDSQ4C60D010 FEU4C609040 F4LC-SQ-WLI
 Description: 4 INCH 6000 LUMEN FAIL-SAFE LED DOWNLIGHT WITH, 4000K, 90CRI LEDS AND F4LC-SQW TRIM WITH LI FINISH
 Light Source: -
 Ballast/Driver: -

Summary

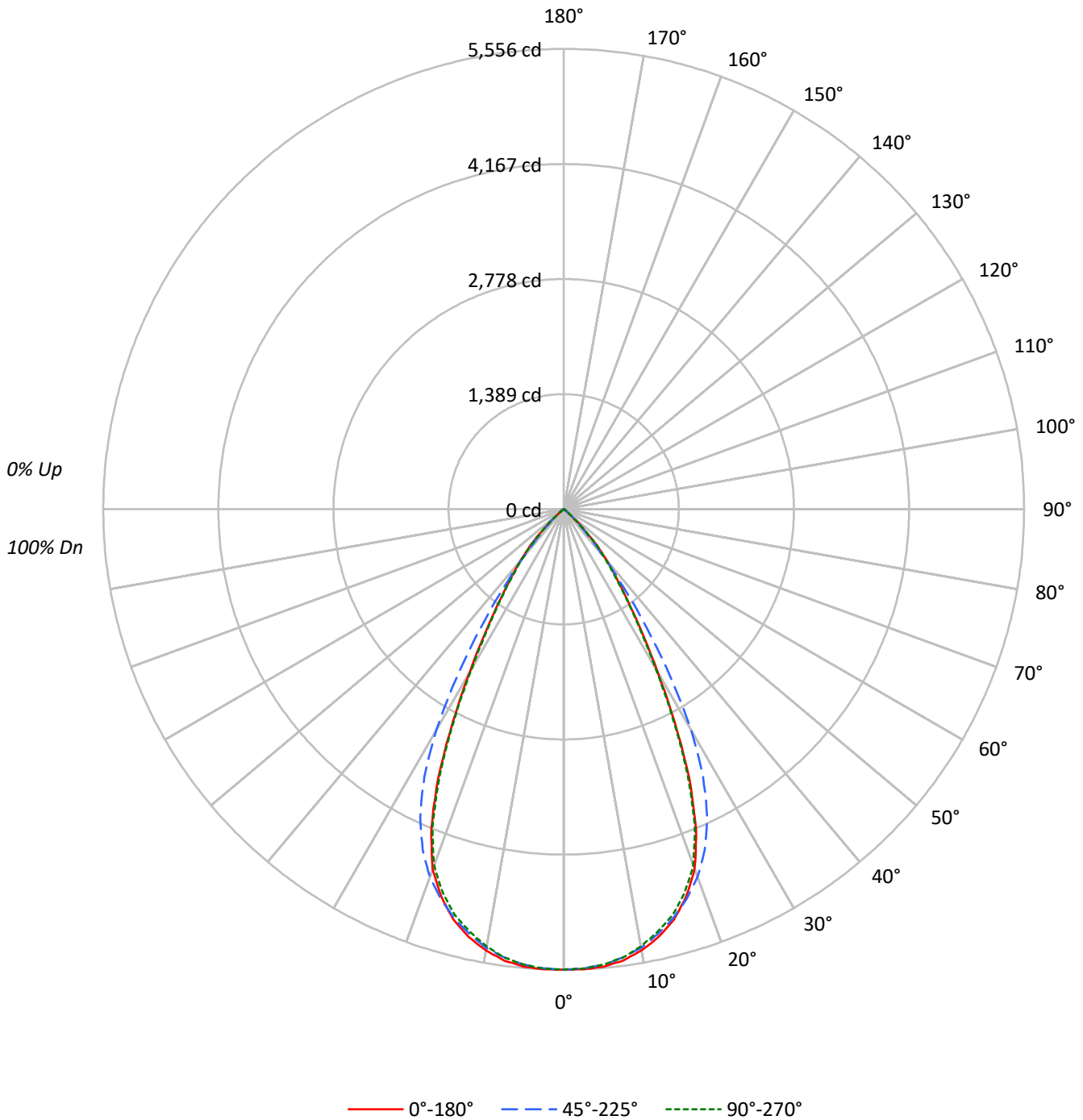
Lumens per Lamp: N/A
 Luminaire Lumens: 4973.0 lumens
 Efficiency: N/A
 Efficacy: 69.1 lumens/watt
 Spacing Criteria (0/90/45): 0.91 / 0.91 / 0.9
 Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
 CIE Type: Direct

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

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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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100	
1	114	111	108	106	111	109	106	104	105	103	101	101	100	98	97	96	95	94	94	94	94	
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87	87	87	87	
3	103	96	91	88	101	95	90	87	92	89	85	90	87	84	88	85	83	81	81	81	81	
4	98	90	85	80	96	89	84	80	87	82	79	85	81	78	83	80	77	76	76	76	76	
5	93	84	79	74	91	84	78	74	82	77	73	80	76	73	79	75	72	71	71	71	71	
6	88	79	73	69	87	79	73	69	77	72	68	76	71	68	74	71	68	66	66	66	66	
7	84	75	69	65	82	74	68	64	73	68	64	71	67	64	70	66	63	62	62	62	62	
8	80	70	64	60	79	70	64	60	69	64	60	68	63	60	67	63	59	58	58	58	58	
9	76	66	61	57	75	66	60	57	65	60	56	64	60	56	63	59	56	55	55	55	55	
10	72	63	57	53	71	62	57	53	62	57	53	61	56	53	60	56	53	52	52	52	52	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	535986	535986	535986
5°	536552	534082	534082
10°	529509	526374	524757
15°	512319	509902	506456
20°	474470	484820	469233
25°	381491	436107	376466
30°	251800	341946	245828
35°	157381	205334	154518
40°	102706	95161	98688
45°	49452	37962	46668
50°	12444	15131	11679
55°	6864	6224	6662
60°	4670	3937	4438
65°	3196	2922	3196
70°	2511	2172	2511
75°	1901	1901	1901
80°	1445	2111	2111
85°	1439	2878	2878

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	522.4	10.5
10°-20°	1426.6	28.7
20°-30°	1700.2	34.2
30°-40°	962.7	19.4
40°-50°	297.6	6.0
50°-60°	41.4	0.8
60°-70°	14.1	0.3
70°-80°	5.6	0.1
80°-90°	2.4	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°	3649.2	73.4
0°-40°	4611.9	92.7
0°-60°	4950.9	99.6
0°-90°	4973.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4973.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5555	5555	5555	5555	5555	
5°	5540	5527	5514	5510	5514	525
15°	5129	5120	5104	5084	5070	1430
25°	3583	3793	4096	3799	3536	1598
35°	1336	1457	1743	1461	1312	870
45°	362	422	278	411	342	299
55°	41	41	37	40	40	40
65°	14	14	13	14	14	15
75°	5	5	5	5	5	6
85°	1	3	3	3	3	2
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5554.9	5554.9	5554.9	5554.9	5554.9
2.5°	5556.2	5547.3	5544.7	5542.2	5547.3
5°	5539.6	5526.9	5514.1	5510.3	5514.1
7.5°	5492.4	5479.6	5457.9	5452.8	5456.7
10°	5404.4	5392.9	5372.4	5361.0	5355.9
12.5°	5288.2	5269.1	5249.9	5237.2	5224.4
15°	5128.7	5119.8	5104.5	5084.0	5070.0
17.5°	4907.9	4920.7	4929.6	4888.8	4851.8
20°	4620.8	4668.0	4721.6	4638.7	4569.8
22.5°	4172.9	4308.2	4444.7	4287.7	4134.6
25°	3583.3	3792.6	4096.3	3799.0	3536.1
27.5°	2895.5	3160.9	3639.5	3162.2	2857.2
30°	2260.0	2533.1	3069.1	2497.4	2206.4
32.5°	1735.5	1939.7	2397.8	1909.1	1698.5
35°	1336.1	1457.3	1743.2	1461.2	1311.8
37.5°	1038.8	1100.0	1172.8	1078.3	1008.1
40°	815.4	818.0	755.5	805.2	783.5
42.5°	604.9	602.3	464.5	587.0	590.8
45°	362.4	422.4	278.2	410.9	342.0
47.5°	172.3	238.6	167.2	225.9	159.5
50°	82.9	114.9	100.8	107.2	77.8
52.5°	56.1	58.7	57.4	56.1	53.6
55°	40.8	40.8	37.0	39.6	39.6
57.5°	30.6	30.6	26.8	29.4	29.4
60°	24.2	23.0	20.4	23.0	23.0
62.5°	17.9	17.9	15.3	17.9	17.9
65°	14.0	14.0	12.8	14.0	14.0
67.5°	11.5	11.5	8.9	11.5	10.2
70°	8.9	8.9	7.7	8.9	8.9
72.5°	6.4	6.4	6.4	6.4	6.4
75°	5.1	5.1	5.1	5.1	5.1
77.5°	3.8	3.8	3.8	3.8	3.8
80°	2.6	2.6	3.8	3.8	3.8
82.5°	2.6	2.6	2.6	2.6	2.6
85°	1.3	2.6	2.6	2.6	2.6
87.5°	1.3	1.3	2.6	2.6	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)