

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: **FLDSQ4C75D010 FEU4C759027 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: FLDSQ4C75D010 FEU4C759027 F4LC-SQ-WLI
 Description: 4 INCH 7500 LUMEN FAIL-SAFE LED DOWNLIGHT WITH, 2700K, 90CRI LEDS AND F4LC-SQW TRIM WITH LI FINISH
 Light Source: -
 Ballast/Driver: -

Summary

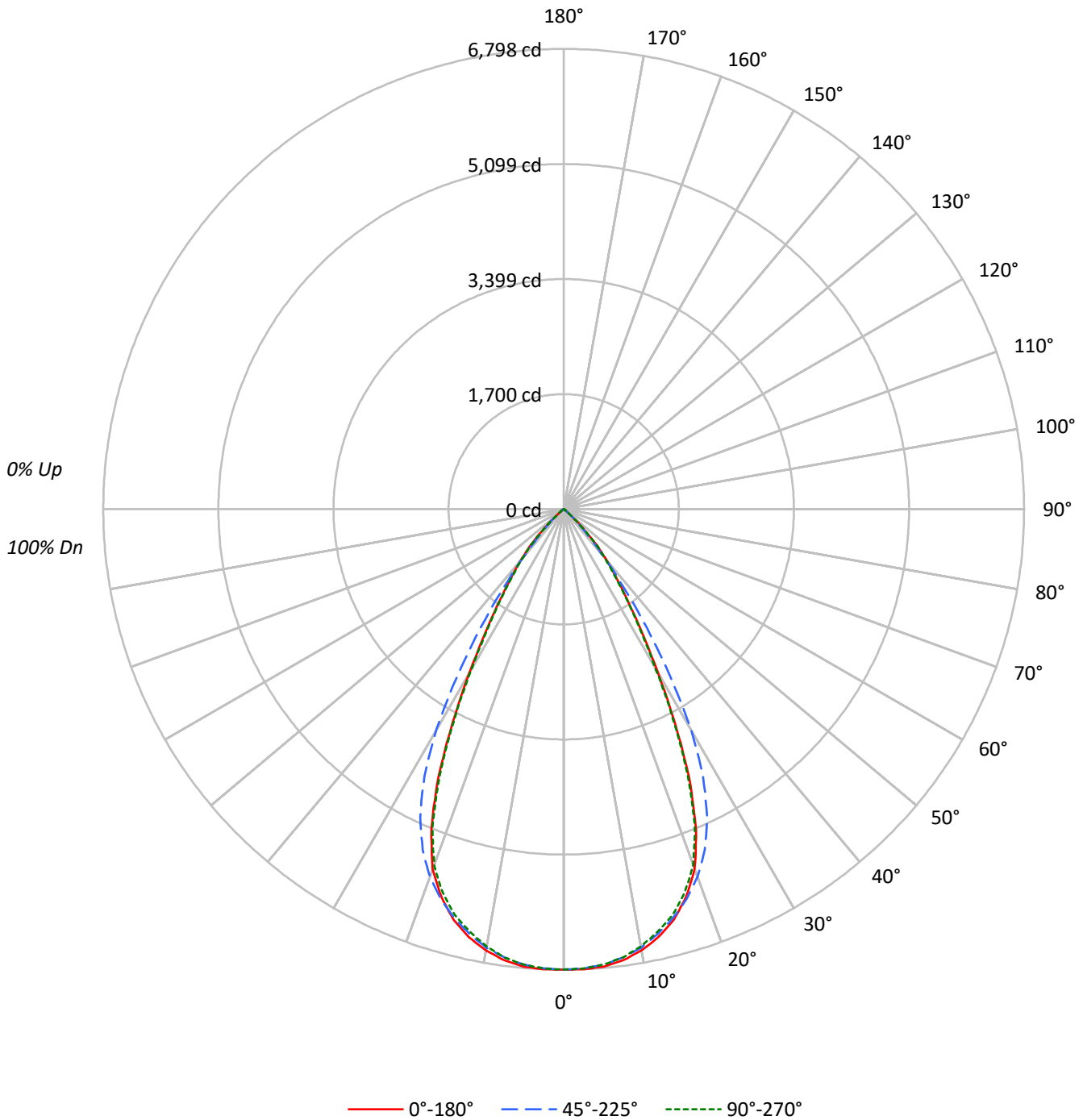
Lumens per Lamp: N/A
 Luminaire Lumens: 6084.0 lumens
 Efficiency: N/A
 Efficacy: 74.7 lumens/watt
 Spacing Criteria (0/90/45): 0.91 / 0.91 / 0.9
 Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
 CIE Type: Direct

Input Watts (W): 81.5
 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	114	111	108	106	111	109	106	104	105	103	101		101	100	98		97	96	95	94
2	108	103	99	96	106	102	98	95	98	95	93		95	93	91		93	91	89	87
3	103	96	91	88	101	95	90	87	92	89	85		90	87	84		88	85	83	81
4	98	90	85	80	96	89	84	80	87	82	79		85	81	78		83	80	77	76
5	93	84	79	74	91	84	78	74	82	77	73		80	76	73		79	75	72	71
6	88	79	73	69	87	79	73	69	77	72	68		76	71	68		74	71	68	66
7	84	75	69	65	82	74	68	64	73	68	64		71	67	64		70	66	63	62
8	80	70	64	60	79	70	64	60	69	64	60		68	63	60		67	63	59	58
9	76	66	61	57	75	66	60	57	65	60	56		64	60	56		63	59	56	55
10	72	63	57	53	71	62	57	53	62	57	53		61	56	53		60	56	53	52

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	655729	655729	655729
5°	656422	653400	653400
10°	647797	643976	641987
15°	626776	623810	619604
20°	580468	593139	574061
25°	466726	533543	460573
30°	308053	418333	300745
35°	192541	251201	189043
40°	125655	116410	120743
45°	60505	46436	57093
50°	15236	18509	14290
55°	8411	7621	8142
60°	5731	4824	5423
65°	3927	3562	3927
70°	3075	2652	3075
75°	2311	2311	2311
80°	1723	2612	2612
85°	1771	3432	3432

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	639.1	10.5
10°-20°	1745.4	28.7
20°-30°	2080.0	34.2
30°-40°	1177.8	19.4
40°-50°	364.1	6.0
50°-60°	50.6	0.8
60°-70°	17.3	0.3
70°-80°	6.9	0.1
80°-90°	2.9	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°	4464.5	73.4
0°-40°	5642.3	92.7
0°-60°	6057.0	99.6
0°-90°	6084.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6084.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6796	6796	6796	6796	6796	
5°	6777	6762	6746	6741	6746	642
15°	6274	6264	6245	6220	6203	1750
25°	4384	4640	5012	4648	4326	1955
35°	1635	1783	2133	1788	1605	1064
45°	443	517	340	503	418	366
55°	50	50	45	48	48	49
65°	17	17	16	17	17	18
75°	6	6	6	6	6	7
85°	2	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°	6795.9	6795.9	6795.9	6795.9	6795.9
2.5°	6797.5	6786.6	6783.5	6780.3	6786.6
5°	6777.2	6761.6	6746.0	6741.3	6746.0
7.5°	6719.4	6703.8	6677.3	6671.0	6675.7
10°	6611.7	6597.7	6572.7	6558.6	6552.4
12.5°	6469.6	6446.2	6422.8	6407.2	6391.6
15°	6274.5	6263.6	6244.8	6219.9	6202.7
17.5°	6004.4	6020.0	6030.9	5981.0	5935.7
20°	5653.1	5710.9	5776.5	5675.0	5590.7
22.5°	5105.2	5270.6	5437.7	5245.7	5058.3
25°	4383.9	4639.9	5011.5	4647.7	4326.1
27.5°	3542.4	3867.1	4452.6	3868.7	3495.5
30°	2764.9	3099.0	3754.7	3055.3	2699.3
32.5°	2123.2	2373.0	2933.5	2335.6	2078.0
35°	1634.6	1782.9	2132.6	1787.6	1604.9
37.5°	1270.8	1345.8	1434.8	1319.2	1233.4
40°	997.6	1000.7	924.2	985.1	958.6
42.5°	740.0	736.9	568.3	718.2	722.8
45°	443.4	516.8	340.3	502.7	418.4
47.5°	210.8	291.9	204.5	276.3	195.2
50°	101.5	140.5	123.3	131.1	95.2
52.5°	68.7	71.8	70.3	68.7	65.6
55°	50.0	50.0	45.3	48.4	48.4
57.5°	37.5	37.5	32.8	35.9	35.9
60°	29.7	28.1	25.0	28.1	28.1
62.5°	21.9	21.9	18.7	21.9	21.9
65°	17.2	17.2	15.6	17.2	17.2
67.5°	14.1	14.1	10.9	14.1	12.5
70°	10.9	10.9	9.4	10.9	10.9
72.5°	7.8	7.8	7.8	7.8	7.8
75°	6.2	6.2	6.2	6.2	6.2
77.5°	4.7	4.7	4.7	4.7	4.7
80°	3.1	3.1	4.7	4.7	4.7
82.5°	3.1	3.1	3.1	3.1	3.1
85°	1.6	3.1	3.1	3.1	3.1
87.5°	1.6	1.6	3.1	3.1	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)