

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 FEU4C759040 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 FEU4C759040 F4LC-SQ-WLI
 Description: 4 INCH 7500 LUMEN FAIL-SAFE LED DOWNLIGHT WITH, 4000K, 90CRI LEDS AND F4LC-SQW TRIM WITH LI FINISH
 Light Source: -
 Ballast/Driver: -

Summary

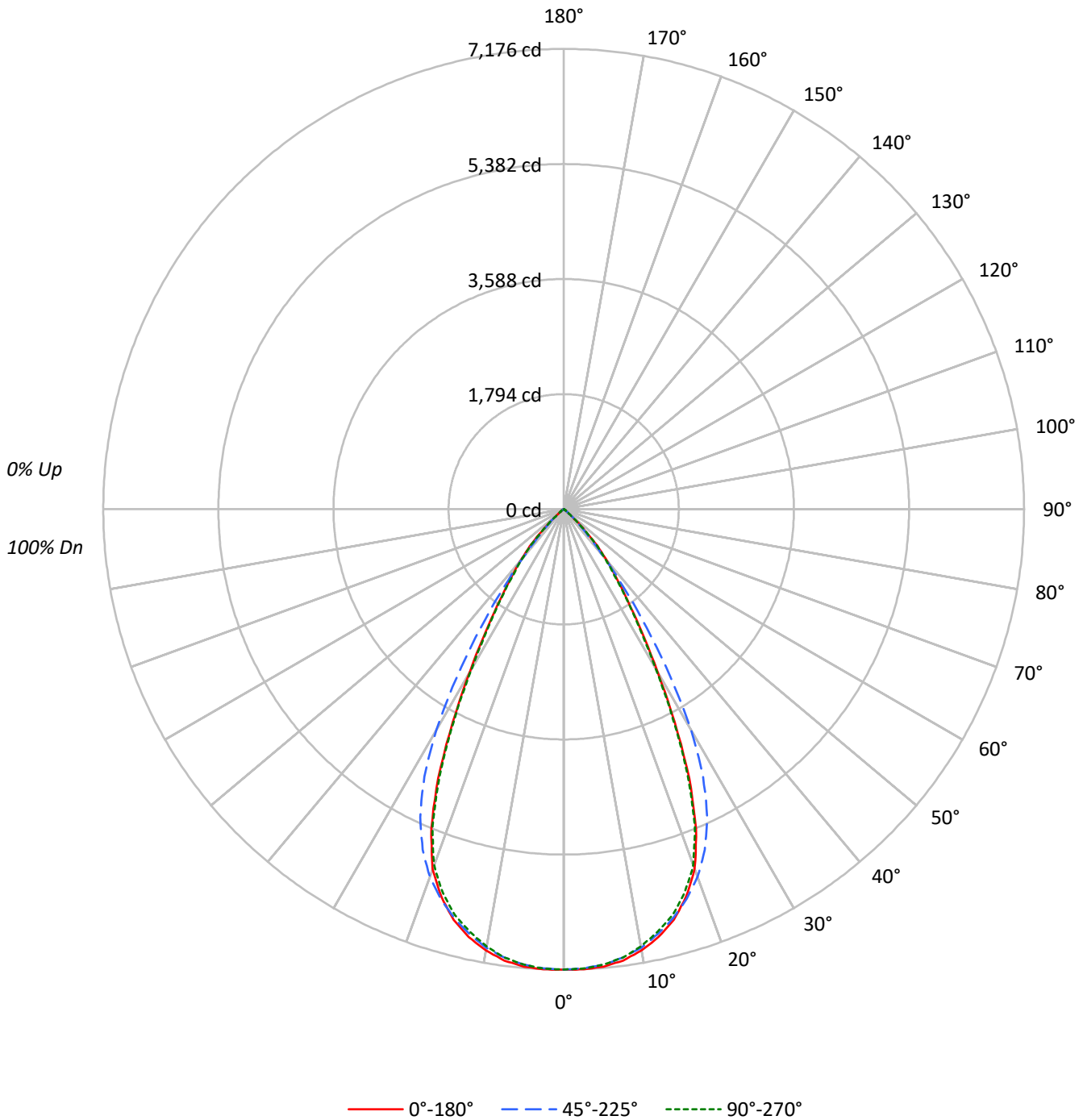
Lumens per Lamp: N/A
 Luminaire Lumens: 6422.9 lumens
 Efficiency: N/A
 Efficacy: 78.8 lumens/watt
 Spacing Criteria (0/90/45): 0.91 / 0.91 / 0.9
 Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
 CIE Type: Direct

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	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°	692269	692269	692269
5°	692996	689809	689809
10°	683892	679855	677759
15°	661699	658572	654127
20°	612812	626182	606046
25°	492725	563268	486241
30°	325223	441641	317502
35°	203272	265195	199574
40°	132658	122897	127469
45°	63875	49029	60273
50°	16077	19544	15086
55°	8865	8041	8596
60°	6040	5095	5731
65°	4132	3767	4132
70°	3244	2793	3244
75°	2461	2461	2461
80°	1834	2723	2723
85°	1771	3653	3653

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	674.7	10.5
10°-20°	1842.6	28.7
20°-30°	2195.9	34.2
30°-40°	1243.4	19.4
40°-50°	384.4	6.0
50°-60°	53.4	0.8
60°-70°	18.2	0.3
70°-80°	7.2	0.1
80°-90°	3.1	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°	4713.2	73.4
0°-40°	5956.6	92.7
0°-60°	6394.5	99.6
0°-90°	6422.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6422.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7175	7175	7175	7175	7175	
5°	7155	7138	7122	7117	7122	677
15°	6624	6613	6593	6566	6548	1847
25°	4628	4898	5291	4907	4567	2064
35°	1726	1882	2251	1887	1694	1123
45°	468	546	359	531	442	387
55°	53	53	48	51	51	52
65°	18	18	16	18	18	19
75°	7	7	7	7	7	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°	7174.6	7174.6	7174.6	7174.6	7174.6
2.5°	7176.3	7164.7	7161.4	7158.1	7164.7
5°	7154.8	7138.3	7121.9	7116.9	7121.9
7.5°	7093.8	7077.4	7049.3	7042.8	7047.7
10°	6980.1	6965.3	6938.9	6924.1	6917.5
12.5°	6830.1	6805.4	6780.7	6764.2	6747.7
15°	6624.1	6612.6	6592.8	6566.4	6548.3
17.5°	6339.0	6355.5	6367.0	6314.2	6266.5
20°	5968.1	6029.1	6098.3	5991.2	5902.2
22.5°	5389.6	5564.3	5740.7	5537.9	5340.2
25°	4628.1	4898.4	5290.7	4906.7	4567.2
27.5°	3739.8	4082.6	4700.7	4084.2	3690.3
30°	2919.0	3271.7	3963.9	3225.5	2849.7
32.5°	2241.6	2505.3	3097.0	2465.7	2193.8
35°	1725.7	1882.2	2251.4	1887.2	1694.3
37.5°	1341.6	1420.7	1514.7	1392.7	1302.1
40°	1053.2	1056.5	975.7	1040.0	1012.0
42.5°	781.2	777.9	599.9	758.2	763.1
45°	468.1	545.6	359.3	530.7	441.7
47.5°	222.5	308.2	215.9	291.7	206.0
50°	107.1	148.3	130.2	138.4	100.5
52.5°	72.5	75.8	74.2	72.5	69.2
55°	52.7	52.7	47.8	51.1	51.1
57.5°	39.6	39.6	34.6	37.9	37.9
60°	31.3	29.7	26.4	29.7	29.7
62.5°	23.1	23.1	19.8	23.1	23.1
65°	18.1	18.1	16.5	18.1	18.1
67.5°	14.8	14.8	11.5	14.8	13.2
70°	11.5	11.5	9.9	11.5	11.5
72.5°	8.2	8.2	8.2	8.2	8.2
75°	6.6	6.6	6.6	6.6	6.6
77.5°	4.9	4.9	4.9	4.9	4.9
80°	3.3	3.3	4.9	4.9	4.9
82.5°	3.3	3.3	3.3	3.3	3.3
85°	1.6	3.3	3.3	3.3	3.3
87.5°	1.6	1.6	3.3	3.3	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)