

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: **FLDSQ4C55D010 FEU4C559035 F4LC-SQ-WH**

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: FLDSQ4C55D010 FEU4C559035 F4LC-SQ-WH
 Description: 4 INCH 5500 LUMEN FAIL-SAFE LED DOWNLIGHT WITH, 3500K, 90CRI LEDS AND F4LC-SQW TRIM WITH H FINISH
 Light Source: -
 Ballast/Driver: -

Summary

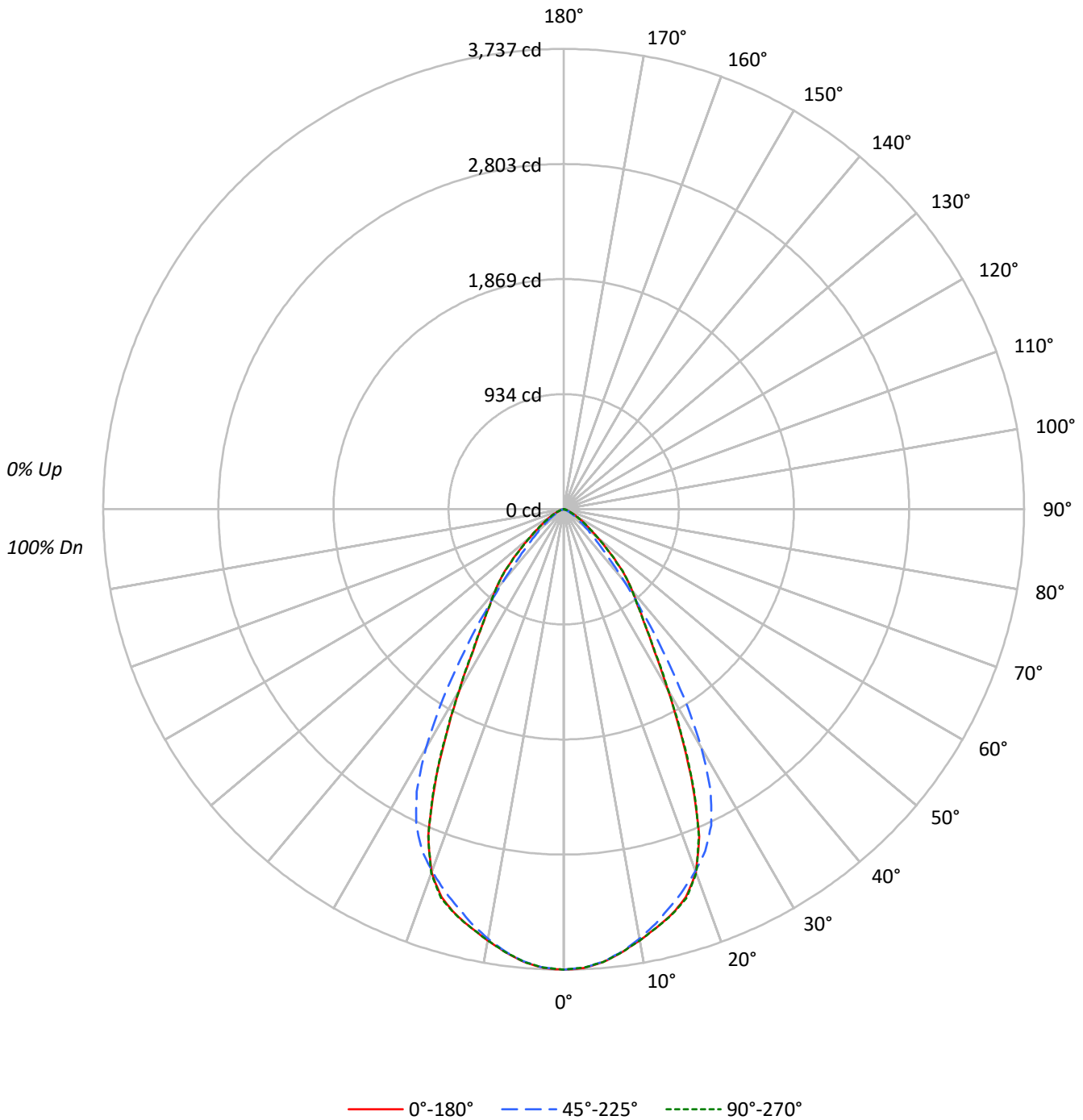
Lumens per Lamp: N/A
 Luminaire Lumens: 3955.0 lumens
 Efficiency: N/A
 Efficacy: 61.9 lumens/watt
 Spacing Criteria (0/90/45): 0.93 / 0.93 / 0.94
 Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
 CIE Type: Direct

Input Watts (W): 63.9
 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	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94	92
2	107	101	97	93	104	99	95	92	96	93	90	93	90	88	90	88	86	84
3	101	93	88	84	98	92	87	83	89	85	82	87	83	80	85	82	79	77
4	95	87	80	76	93	85	80	75	83	78	74	81	77	74	79	76	73	71
5	89	80	74	69	88	79	73	69	78	72	68	76	71	68	74	70	67	66
6	85	75	68	64	83	74	68	63	72	67	63	71	66	63	70	65	62	61
7	80	70	63	59	79	69	63	59	68	62	58	67	62	58	65	61	58	56
8	76	65	59	55	74	65	59	54	64	58	54	63	58	54	62	57	54	52
9	72	61	55	51	71	61	55	51	60	54	51	59	54	50	58	54	50	49
10	68	58	52	48	67	57	51	47	57	51	47	56	51	47	55	50	47	46

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	360550	360550	360550
5°	357249	357026	357133
10°	348104	346722	348104
15°	339725	333602	340075
20°	322101	320889	322707
25°	264211	301473	265595
30°	188404	249059	188671
35°	135896	165037	136308
40°	108953	95891	108953
45°	83129	55961	82488
50°	54835	35726	54655
55°	36875	23989	36471
60°	24778	16365	25010
65°	16941	11575	16690
70°	11313	8322	11313
75°	7456	6151	7456
80°	5223	4556	5223
85°	3875	3875	3875

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	347.4	8.8
10°-20°	947.2	23.9
20°-30°	1184.1	29.9
30°-40°	796.6	20.1
40°-50°	420.6	10.6
50°-60°	170.9	4.3
60°-70°	63.4	1.6
70°-80°	20.5	0.5
80°-90°	4.4	0.1
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°	2478.6	62.7
0°-40°	3275.2	82.8
0°-60°	3866.7	97.8
0°-90°	3955.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3955.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3737	3737	3737	3737	3737	
5°	3688	3685	3686	3686	3687	348
15°	3401	3373	3340	3371	3404	953
25°	2482	2621	2832	2626	2495	1117
35°	1154	1211	1401	1214	1157	742
45°	609	579	410	576	604	467
55°	219	184	143	184	217	203
65°	74	60	51	60	73	76
75°	20	18	16	18	20	23
85°	4	4	4	4	4	4
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3736.7	3736.7	3736.7	3736.7	3736.7
2.5°	3727.3	3724.9	3723.8	3723.8	3724.9
5°	3688.4	3684.9	3686.1	3686.1	3687.2
7.5°	3626.0	3624.8	3621.2	3626.0	3626.0
10°	3552.9	3547.0	3538.8	3548.2	3552.9
12.5°	3477.5	3459.8	3445.7	3459.8	3477.5
15°	3400.9	3372.6	3339.6	3371.4	3404.4
17.5°	3300.7	3272.4	3235.9	3278.3	3310.1
20°	3136.9	3139.3	3125.1	3136.9	3142.8
22.5°	2874.1	2927.2	3001.4	2928.3	2865.9
25°	2481.7	2620.8	2831.7	2625.5	2494.7
27.5°	2061.0	2237.8	2583.1	2248.4	2074.0
30°	1691.0	1847.7	2235.4	1858.3	1693.4
32.5°	1369.3	1486.0	1817.1	1500.1	1384.6
35°	1153.7	1211.4	1401.1	1213.8	1157.2
37.5°	988.7	988.7	1040.5	993.4	984.0
40°	865.0	827.2	761.3	826.1	865.0
42.5°	749.5	692.9	552.7	690.5	751.8
45°	609.2	578.6	410.1	576.2	604.5
47.5°	467.8	446.6	308.7	444.3	471.4
50°	365.3	332.3	238.0	330.0	364.1
52.5°	280.5	245.1	183.8	245.1	278.1
55°	219.2	183.8	142.6	183.8	216.8
57.5°	168.5	140.2	108.4	137.9	167.3
60°	128.4	104.9	84.8	104.9	129.6
62.5°	97.8	80.1	64.8	79.0	96.6
65°	74.2	60.1	50.7	60.1	73.1
67.5°	54.2	44.8	38.9	44.8	55.4
70°	40.1	34.2	29.5	33.0	40.1
72.5°	29.5	24.7	22.4	24.7	29.5
75°	20.0	17.7	16.5	17.7	20.0
77.5°	14.1	13.0	11.8	13.0	14.1
80°	9.4	8.2	8.2	9.4	9.4
82.5°	5.9	5.9	5.9	5.9	5.9
85°	3.5	3.5	3.5	3.5	3.5
87.5°	2.4	2.4	2.4	2.4	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)