

Scaled data based on original data using
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: P312736

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-RDP-CP250-W2A-U-3500K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P312736
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-44HE-UNV-L83050-RDP-CP250-W2A-U-3500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" POLYCARB SHEET
Light Source: (168) 3500K TUNABLE CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2472.0 lumens
Efficiency: N/A
Efficacy: 66.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

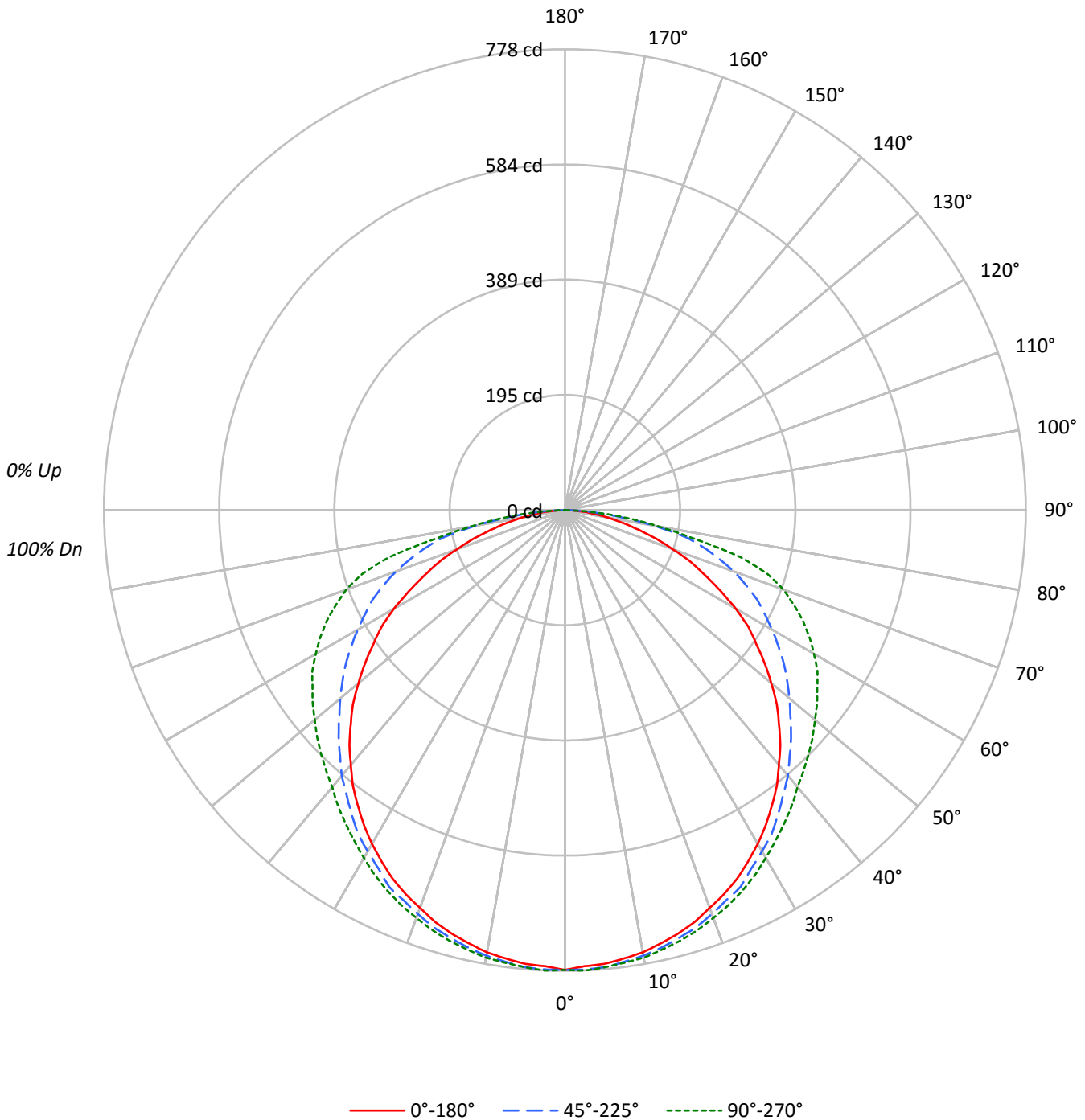
Input Watts (W): 37.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2090	2090	2090
5°	2078	2093	2093
10°	2072	2087	2097
15°	2062	2082	2098
20°	2047	2078	2099
25°	2041	2084	2106
30°	2023	2068	2108
35°	2001	2061	2121
40°	1974	2057	2146
45°	1945	2055	2214
50°	1903	2071	2307
55°	1851	2116	2440
60°	1791	2173	2613
65°	1668	2281	2825
70°	1531	2389	3091
75°	1342	2515	3195
80°	1156	2396	2507
85°	1010	1741	1908



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.5	3.0
10°-20°	210.9	8.5
20°-30°	321.8	13.0
30°-40°	392.9	15.9
40°-50°	420.1	17.0
50°-60°	405.4	16.4
60°-70°	349.0	14.1
70°-80°	236.2	9.6
80°-90°	62.3	2.5
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°	606.1	24.5
0°-40°	999.0	40.4
0°-60°	1824.5	73.8
0°-90°	2472.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2472.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	776	776	776	776	776	
5°	769	771	775	775	775	73
15°	740	742	747	751	753	209
25°	687	691	702	706	709	316
35°	609	615	627	640	646	381
45°	511	520	540	567	582	394
55°	395	407	451	496	520	354
65°	262	287	358	415	444	260
75°	129	171	242	291	307	139
85°	33	46	56	58	62	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	776.5	776.5	776.5	776.5	776.5
2.5°	771.0	772.9	776.5	776.5	778.3
5°	769.2	771.0	774.7	774.7	774.7
7.5°	763.8	765.6	769.2	771.0	771.0
10°	758.3	760.1	763.8	765.6	767.4
12.5°	749.2	751.0	756.5	760.1	760.1
15°	740.1	741.9	747.4	751.0	752.9
17.5°	729.2	732.9	738.3	741.9	743.8
20°	714.7	718.3	725.6	731.0	732.9
22.5°	701.9	705.6	712.9	718.3	721.9
25°	687.4	691.0	701.9	705.6	709.2
27.5°	669.2	672.8	681.9	689.2	694.7
30°	651.0	654.7	665.6	674.7	678.3
32.5°	631.0	636.5	649.2	656.5	661.9
35°	609.2	614.7	627.4	640.1	645.6
37.5°	587.4	592.8	605.6	621.9	629.2
40°	561.9	569.2	585.6	607.4	611.0
42.5°	538.3	547.4	561.9	587.4	596.5
45°	511.0	520.1	540.1	567.4	581.9
47.5°	485.5	494.6	516.5	549.2	567.4
50°	454.6	467.4	494.6	532.8	551.0
52.5°	425.5	436.4	472.8	514.6	536.5
55°	394.6	407.3	451.0	496.4	520.1
57.5°	367.3	378.2	427.3	478.3	505.5
60°	332.8	347.3	403.7	458.3	485.5
62.5°	296.4	318.2	380.1	436.4	465.5
65°	261.9	287.3	358.2	414.6	443.7
67.5°	230.9	258.2	331.0	391.0	418.3
70°	194.6	229.1	303.7	361.9	392.8
72.5°	161.8	200.0	272.8	331.0	358.2
75°	129.1	170.9	241.9	291.0	307.3
77.5°	100.0	140.0	207.3	221.9	223.7
80°	74.6	110.9	154.6	156.4	161.8
82.5°	50.9	78.2	100.0	109.1	110.9
85°	32.7	45.5	56.4	58.2	61.8
87.5°	14.5	16.4	20.0	18.2	18.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)