

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: P312701

Luminaire Tested: **22FCZ2-39HE-UNV-L83050-RDP-CP125-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: P312701  
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: 22FCZ2-39HE-UNV-L83050-RDP-CP125-W2A-U-3500K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" 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**

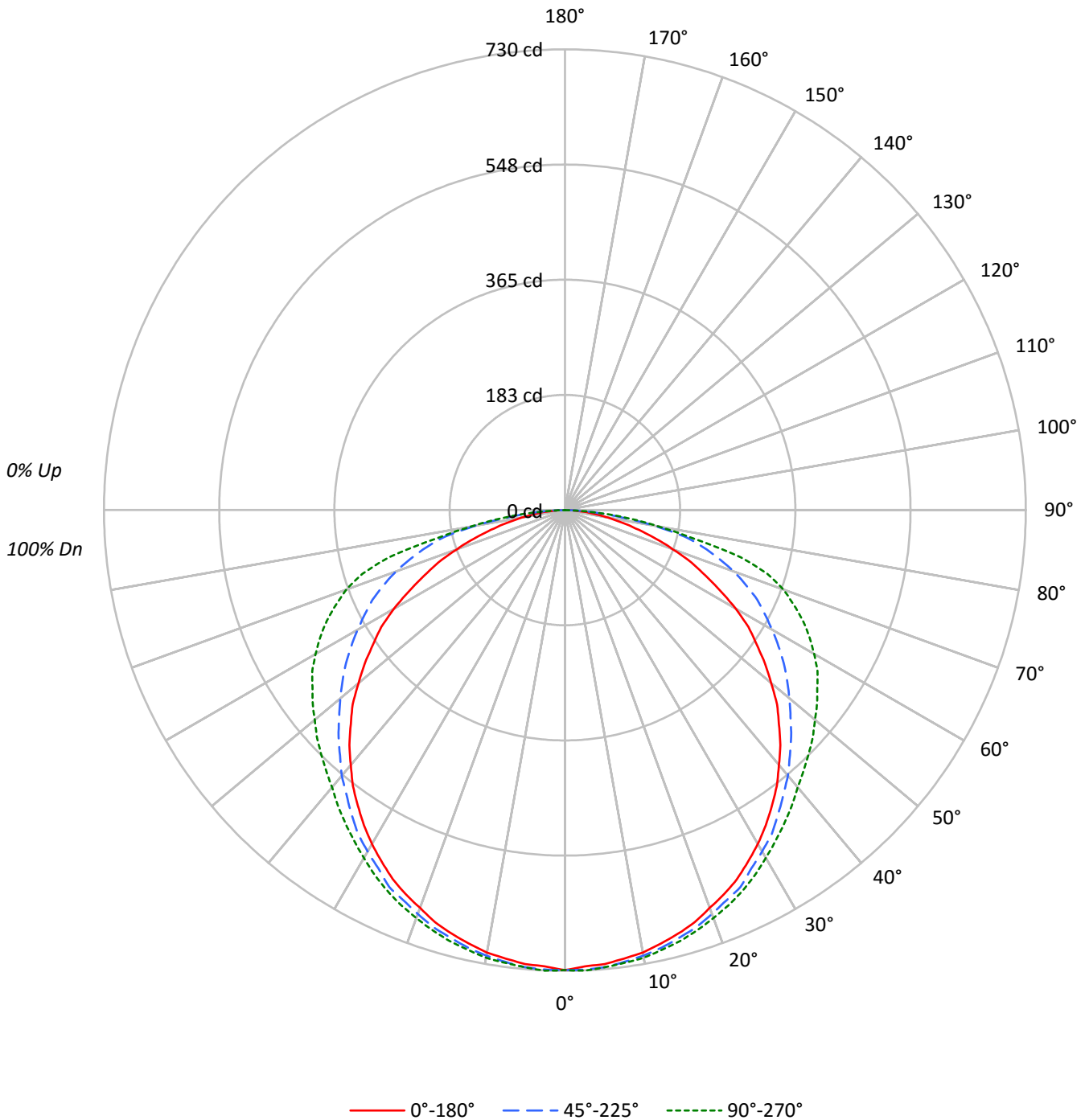
Lumens per Lamp: N/A  
Luminaire Lumens: 2320.0 lumens  
Efficiency: N/A  
Efficacy: 71.6 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 32.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	1961	1961	1961
5°	1950	1964	1964
10°	1945	1959	1968
15°	1935	1954	1969
20°	1921	1950	1970
25°	1915	1956	1976
30°	1899	1941	1978
35°	1878	1934	1990
40°	1853	1931	2014
45°	1825	1929	2078
50°	1786	1943	2165
55°	1737	1986	2290
60°	1681	2039	2453
65°	1565	2141	2651
70°	1437	2242	2900
75°	1260	2360	2999
80°	1085	2249	2354
85°	948	1633	1791



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.9	3.0
10°-20°	197.9	8.5
20°-30°	302.0	13.0
30°-40°	368.7	15.9
40°-50°	394.2	17.0
50°-60°	380.5	16.4
60°-70°	327.6	14.1
70°-80°	221.6	9.6
80°-90°	58.5	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°	568.8	24.5
0°-40°	937.6	40.4
0°-60°	1712.3	73.8
0°-90°	2320.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2320.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	729	729	729	729	729	
5°	722	724	727	727	727	69
15°	695	696	701	705	707	196
25°	645	648	659	662	666	297
35°	572	577	589	601	606	358
45°	480	488	507	532	546	370
55°	370	382	423	466	488	332
65°	246	270	336	389	416	244
75°	121	160	227	273	288	130
85°	31	43	53	55	58	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	728.8	728.8	728.8	728.8	728.8
2.5°	723.6	725.3	728.8	728.8	730.5
5°	721.9	723.6	727.0	727.0	727.0
7.5°	716.8	718.5	721.9	723.6	723.6
10°	711.7	713.4	716.8	718.5	720.2
12.5°	703.2	704.9	710.0	713.4	713.4
15°	694.6	696.3	701.4	704.9	706.6
17.5°	684.4	687.8	692.9	696.3	698.0
20°	670.7	674.1	681.0	686.1	687.8
22.5°	658.8	662.2	669.0	674.1	677.6
25°	645.1	648.5	658.8	662.2	665.6
27.5°	628.1	631.5	640.0	646.8	652.0
30°	611.0	614.4	624.6	633.2	636.6
32.5°	592.2	597.3	609.3	616.1	621.2
35°	571.7	576.9	588.8	600.8	605.9
37.5°	551.3	556.4	568.3	583.7	590.5
40°	527.4	534.2	549.6	570.0	573.4
42.5°	505.2	513.7	527.4	551.3	559.8
45°	479.6	488.1	506.9	532.5	546.1
47.5°	455.7	464.2	484.7	515.4	532.5
50°	426.7	438.6	464.2	500.1	517.1
52.5°	399.4	409.6	443.7	483.0	503.5
55°	370.3	382.3	423.3	465.9	488.1
57.5°	344.7	355.0	401.1	448.9	474.5
60°	312.3	326.0	378.9	430.1	455.7
62.5°	278.2	298.7	356.7	409.6	436.9
65°	245.8	269.7	336.2	389.1	416.4
67.5°	216.7	242.3	310.6	366.9	392.5
70°	182.6	215.0	285.0	339.6	368.6
72.5°	151.9	187.7	256.0	310.6	336.2
75°	121.2	160.4	227.0	273.1	288.4
77.5°	93.9	131.4	194.6	208.2	209.9
80°	70.0	104.1	145.1	146.8	151.9
82.5°	47.8	73.4	93.9	102.4	104.1
85°	30.7	42.7	52.9	54.6	58.0
87.5°	13.7	15.4	18.8	17.1	17.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)