

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: P312723

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-RDP-CA125-W2A-U-4500K**

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: P312723  
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-CA125-W2A-U-4500K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET  
Light Source: (168) 4500K 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: 2813.0 lumens  
Efficiency: N/A  
Efficacy: 72.1 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

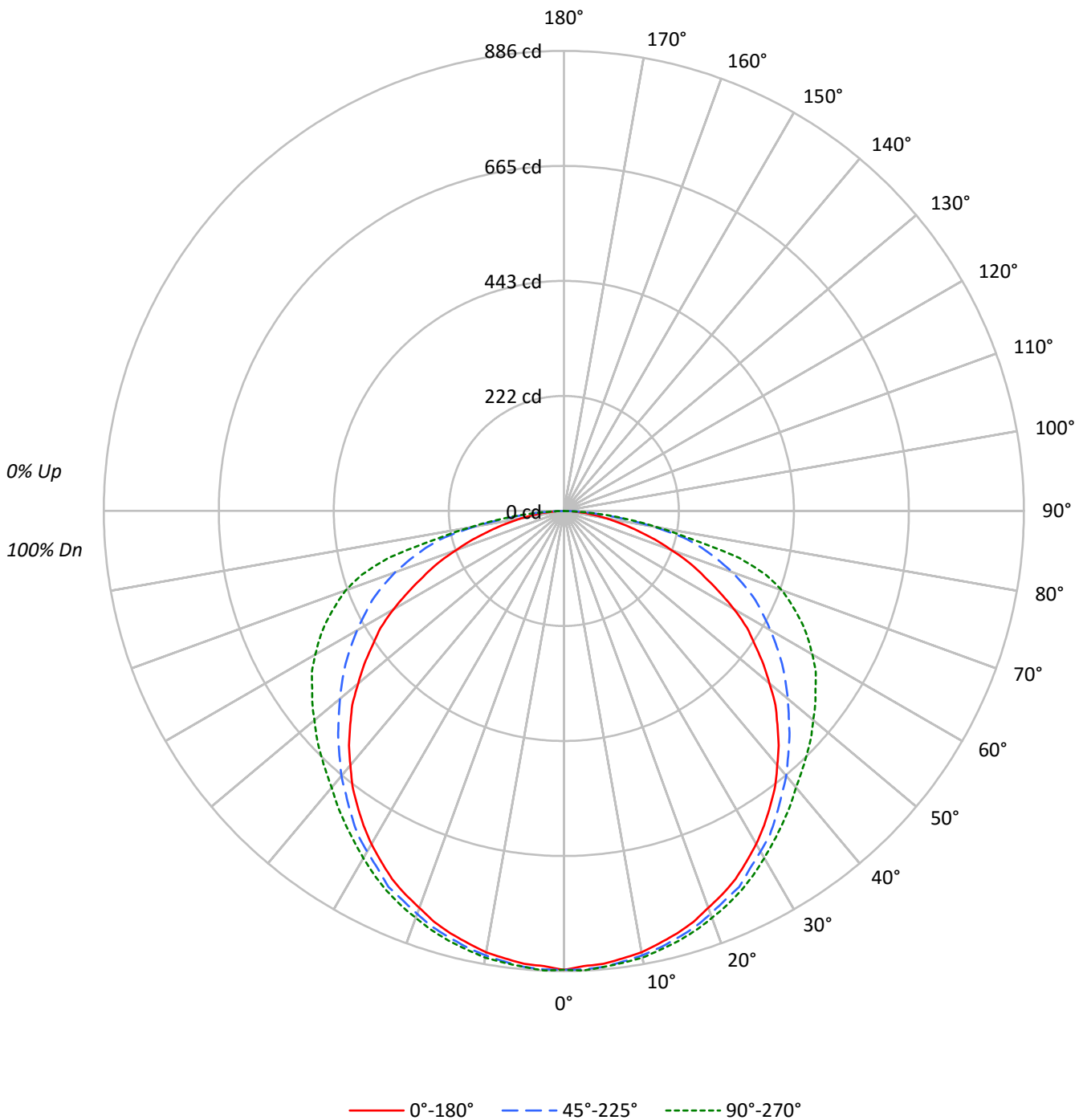
Input Watts (W): 39  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2378	2378	2378
5°	2364	2381	2381
10°	2358	2375	2386
15°	2346	2369	2387
20°	2329	2365	2388
25°	2322	2372	2396
30°	2302	2353	2399
35°	2277	2345	2413
40°	2246	2341	2442
45°	2213	2339	2520
50°	2166	2357	2625
55°	2107	2408	2776
60°	2038	2472	2974
65°	1897	2596	3215
70°	1742	2719	3517
75°	1527	2861	3636
80°	1314	2726	2854
85°	1149	1979	2174



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	83.6	3.0
10°-20°	240.0	8.5
20°-30°	366.1	13.0
30°-40°	447.1	15.9
40°-50°	478.0	17.0
50°-60°	461.4	16.4
60°-70°	397.2	14.1
70°-80°	268.7	9.6
80°-90°	70.9	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°	689.7	24.5
0°-40°	1136.8	40.4
0°-60°	2076.2	73.8
0°-90°	2813.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2813.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	884	884	884	884	884	
5°	875	877	882	882	882	83
15°	842	844	850	855	857	238
25°	782	786	799	803	807	360
35°	693	699	714	728	735	434
45°	582	592	615	646	662	449
55°	449	464	513	565	592	402
65°	298	327	408	472	505	296
75°	147	194	275	331	350	158
85°	37	52	64	66	70	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	883.6	883.6	883.6	883.6	883.6
2.5°	877.4	879.5	883.6	883.6	885.7
5°	875.3	877.4	881.5	881.5	881.5
7.5°	869.1	871.2	875.3	877.4	877.4
10°	862.9	865.0	869.1	871.2	873.3
12.5°	852.6	854.6	860.8	865.0	865.0
15°	842.2	844.3	850.5	854.6	856.7
17.5°	829.8	833.9	840.2	844.3	846.4
20°	813.3	817.4	825.7	831.9	833.9
22.5°	798.8	802.9	811.2	817.4	821.5
25°	782.2	786.4	798.8	802.9	807.0
27.5°	761.5	765.7	776.0	784.3	790.5
30°	740.8	745.0	757.4	767.7	771.9
32.5°	718.1	724.3	738.8	747.0	753.2
35°	693.2	699.4	713.9	728.4	734.6
37.5°	668.4	674.6	689.1	707.7	716.0
40°	639.4	647.7	666.3	691.2	695.3
42.5°	612.5	622.9	639.4	668.4	678.7
45°	581.5	591.8	614.6	645.6	662.2
47.5°	552.5	562.9	587.7	624.9	645.6
50°	517.3	531.8	562.9	606.3	627.0
52.5°	484.2	496.6	538.0	585.6	610.5
55°	449.0	463.5	513.2	564.9	591.8
57.5°	418.0	430.4	486.3	544.2	575.3
60°	378.7	395.2	459.4	521.5	552.5
62.5°	337.3	362.1	432.5	496.6	529.8
65°	298.0	327.0	407.7	471.8	504.9
67.5°	262.8	293.8	376.6	444.9	476.0
70°	221.4	260.7	345.6	411.8	447.0
72.5°	184.2	227.6	310.4	376.6	407.7
75°	146.9	194.5	275.2	331.1	349.7
77.5°	113.8	159.3	235.9	252.5	254.5
80°	84.8	126.2	175.9	178.0	184.2
82.5°	57.9	89.0	113.8	124.2	126.2
85°	37.2	51.7	64.1	66.2	70.4
87.5°	16.6	18.6	22.8	20.7	20.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)