

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: P313071

Luminaire Tested: **24FCZ2-30-UNV-L83050-HRP-CA125-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: P313071  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-30-UNV-L83050-HRP-CA125-W2A-U-3500K  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC 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**

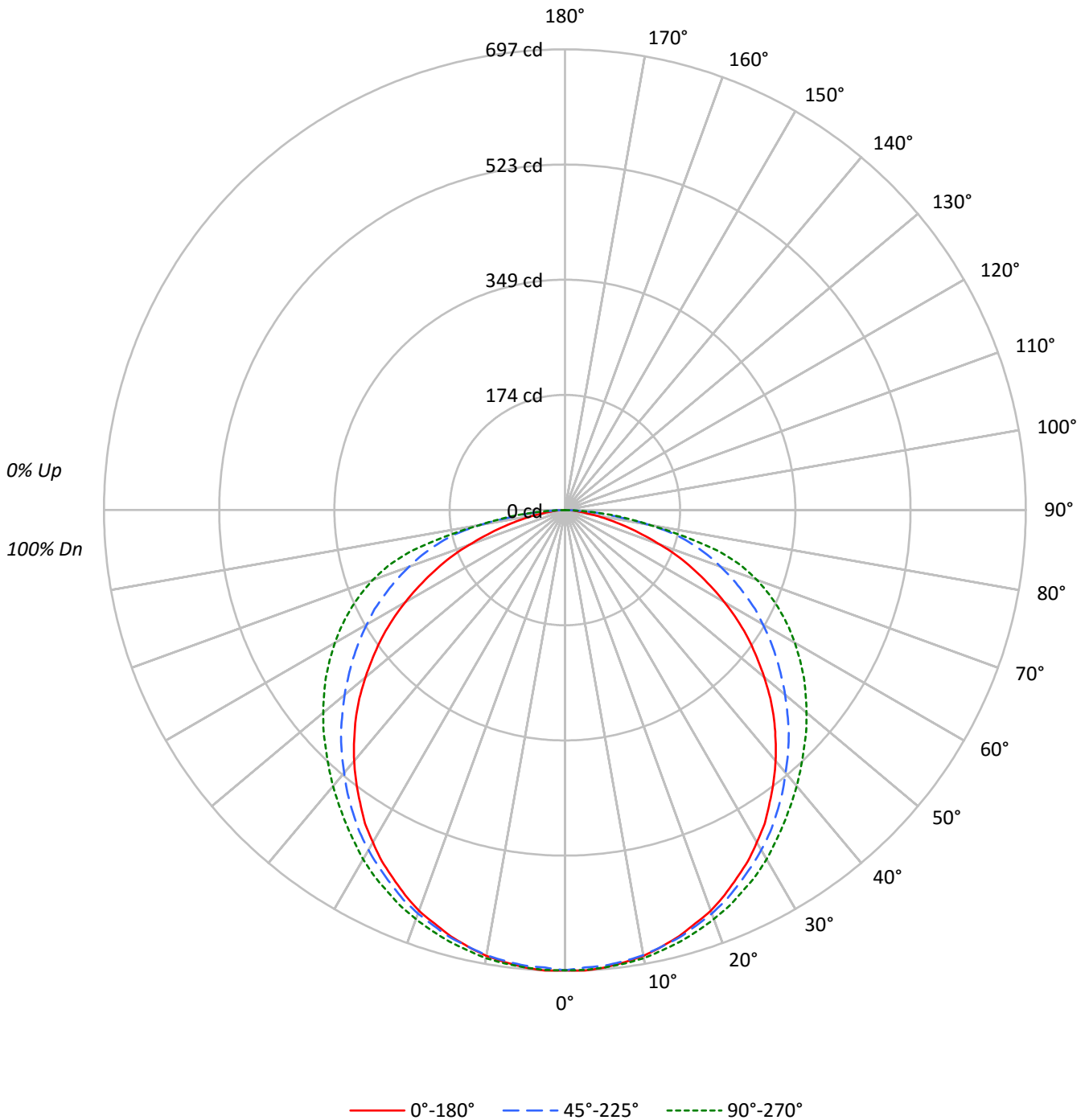
Lumens per Lamp: N/A  
Luminaire Lumens: 2146.0 lumens  
Efficiency: N/A  
Efficacy: 91.7 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 23.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	937	937	937
5°	938	934	938
10°	935	934	940
15°	930	932	941
20°	924	930	943
25°	912	926	944
30°	902	923	948
35°	887	918	949
40°	871	912	958
45°	851	911	973
50°	824	910	999
55°	795	917	1035
60°	749	931	1081
65°	692	953	1141
70°	604	986	1216
75°	490	1037	1256
80°	362	1017	1017
85°	278	749	846



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.0	3.1
10°-20°	189.4	8.8
20°-30°	288.4	13.4
30°-40°	350.1	16.3
40°-50°	369.9	17.2
50°-60°	349.1	16.3
60°-70°	290.2	13.5
70°-80°	190.9	8.9
80°-90°	52.1	2.4
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°	543.7	25.3
0°-40°	893.8	41.7
0°-60°	1612.8	75.2
0°-90°	2146.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2146.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	696	696	696	696	696	
5°	694	694	692	694	694	66
15°	668	668	669	676	676	188
25°	614	618	624	634	636	283
35°	540	546	559	573	578	338
45°	447	456	479	502	511	345
55°	339	353	391	428	441	302
65°	217	243	299	343	358	215
75°	94	138	199	236	242	102
85°	18	40	48	54	55	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	696.3	696.3	696.3	696.3	696.3
2.5°	697.2	696.3	692.7	696.3	696.3
5°	694.5	694.5	691.8	694.5	694.5
7.5°	690.0	690.0	688.2	691.8	691.8
10°	684.6	684.6	683.7	688.2	688.2
12.5°	676.5	677.4	676.5	681.9	681.9
15°	667.5	668.4	669.3	675.6	675.6
17.5°	655.8	657.6	659.4	666.6	667.5
20°	645.1	646.0	649.6	657.6	658.5
22.5°	630.7	633.4	637.9	646.0	648.7
25°	614.5	618.1	623.5	634.3	636.1
27.5°	599.2	601.9	609.1	620.8	624.4
30°	580.4	584.9	593.9	605.5	610.0
32.5°	562.4	566.9	577.7	590.3	593.9
35°	539.9	546.2	558.8	573.2	577.7
37.5°	518.4	524.7	539.9	556.1	561.5
40°	495.9	503.1	519.3	538.2	545.3
42.5°	471.7	481.6	499.5	520.2	528.3
45°	447.4	456.4	478.9	502.2	511.2
47.5°	421.4	432.1	456.4	484.2	495.0
50°	393.5	407.0	434.8	465.4	477.1
52.5°	365.7	380.9	412.4	446.5	459.1
55°	338.7	353.1	390.8	427.6	441.1
57.5°	309.1	327.0	368.4	407.9	421.4
60°	278.5	298.3	345.9	387.2	401.6
62.5°	248.0	270.4	324.3	365.7	380.9
65°	217.4	242.6	299.2	343.2	358.5
67.5°	187.8	215.6	275.8	319.8	335.1
70°	153.6	188.7	250.7	293.8	309.1
72.5°	122.2	162.6	226.4	266.8	280.3
75°	94.3	137.5	199.4	236.3	241.7
77.5°	69.2	112.3	171.6	184.2	185.1
80°	46.7	89.8	131.2	129.4	131.2
82.5°	30.5	67.4	82.7	92.5	93.4
85°	18.0	39.5	48.5	53.9	54.8
87.5°	9.0	13.5	17.1	18.0	19.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)