

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: P313448

Luminaire Tested: **24FCZ2-30-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: P313448  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
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-RDP-CA125-W2A-U-4500K  
Description: 2'X4' 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**

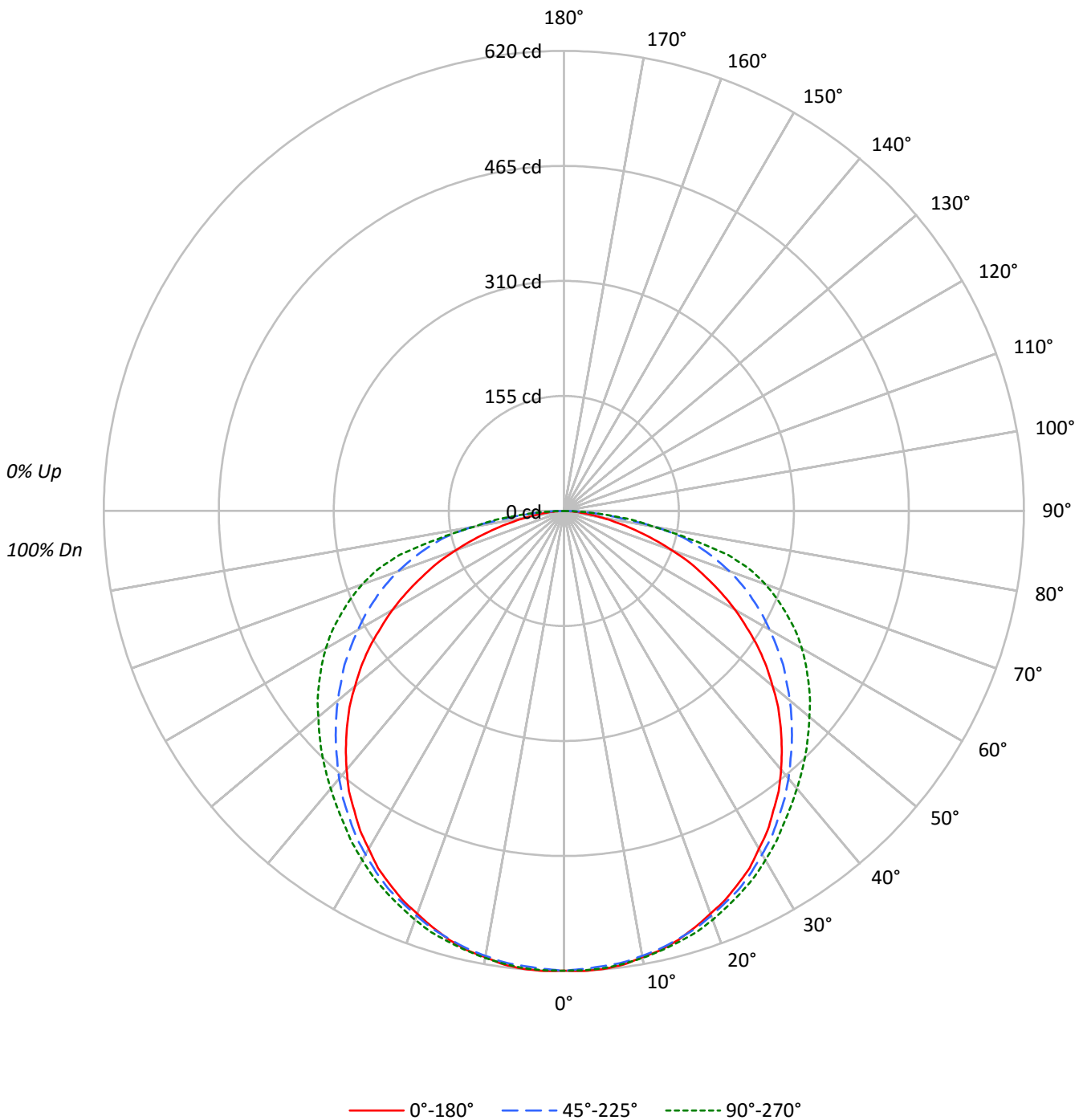
Lumens per Lamp: N/A  
Luminaire Lumens: 1970.0 lumens  
Efficiency: N/A  
Efficacy: 80.4 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 24.5  
Input Voltage (V): NR  
Input Current (A<sub>in</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	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	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°	834	834	834
5°	837	831	835
10°	834	832	836
15°	833	832	837
20°	827	831	839
25°	824	833	841
30°	817	830	844
35°	809	828	847
40°	800	827	858
45°	786	827	878
50°	769	832	904
55°	749	846	944
60°	718	862	996
65°	672	893	1058
70°	611	934	1138
75°	518	986	1189
80°	409	992	962
85°	301	755	844



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.8	3.0
10°-20°	169.1	8.6
20°-30°	258.6	13.1
30°-40°	316.2	16.0
40°-50°	337.0	17.1
50°-60°	322.2	16.4
60°-70°	272.9	13.9
70°-80°	183.4	9.3
80°-90°	51.7	2.6
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°	486.5	24.7
0°-40°	802.7	40.7
0°-60°	1461.9	74.2
0°-90°	1970.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1970.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	620	620	620	620	620	
5°	620	618	616	618	618	59
15°	598	598	597	602	601	169
25°	555	557	561	566	567	256
35°	492	496	504	514	516	309
45°	413	420	435	453	461	319
55°	320	331	361	389	403	285
65°	211	233	280	318	332	210
75°	100	136	190	222	229	107
85°	20	40	49	53	55	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	619.5	619.5	619.5	619.5	619.5
2.5°	620.5	620.5	617.6	619.5	619.5
5°	619.5	618.5	615.6	618.5	618.5
7.5°	616.6	615.6	613.6	616.6	615.6
10°	610.7	610.7	608.8	611.7	611.7
12.5°	605.8	604.9	603.9	607.8	606.8
15°	598.0	598.0	597.0	601.9	600.9
17.5°	588.2	589.2	590.2	594.1	595.1
20°	577.5	579.4	580.4	586.3	586.3
22.5°	567.7	568.7	570.7	576.5	576.5
25°	555.0	557.0	560.9	565.8	566.7
27.5°	542.3	543.3	548.2	555.0	556.0
30°	525.7	528.6	534.5	542.3	543.3
32.5°	511.0	514.0	520.8	528.6	530.6
35°	492.5	496.4	504.2	514.0	515.9
37.5°	475.9	478.8	488.6	499.3	502.3
40°	455.3	461.2	471.0	483.7	488.6
42.5°	434.8	440.7	452.4	469.0	474.9
45°	413.3	420.2	434.8	453.4	461.2
47.5°	391.8	399.7	416.3	437.8	446.6
50°	367.4	377.2	397.7	422.1	431.9
52.5°	344.0	355.7	378.2	405.5	418.2
55°	319.5	331.3	360.6	388.9	402.6
57.5°	292.2	307.8	340.0	372.3	386.9
60°	266.8	281.4	320.5	355.7	370.3
62.5°	239.4	258.9	301.0	338.1	352.7
65°	211.1	232.6	280.4	317.6	332.2
67.5°	185.7	209.1	259.9	297.1	311.7
70°	155.4	184.7	237.4	274.6	289.2
72.5°	127.0	159.3	214.0	250.1	263.8
75°	99.7	135.8	189.6	221.8	228.7
77.5°	74.3	112.4	164.2	177.8	173.0
80°	52.8	89.9	128.0	121.2	124.1
82.5°	34.2	68.4	79.1	89.9	92.8
85°	19.5	40.1	48.9	52.8	54.7
87.5°	8.8	14.7	19.5	19.5	18.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)