

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: P312348

Luminaire Tested: **14FCZ2-29-UNV-L83050-S-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: P312348  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 14FCZ2-29-UNV-L83050-S-CA125-W2A-U-4500K  
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 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: 2990.0 lumens  
Efficiency: N/A  
Efficacy: 119.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

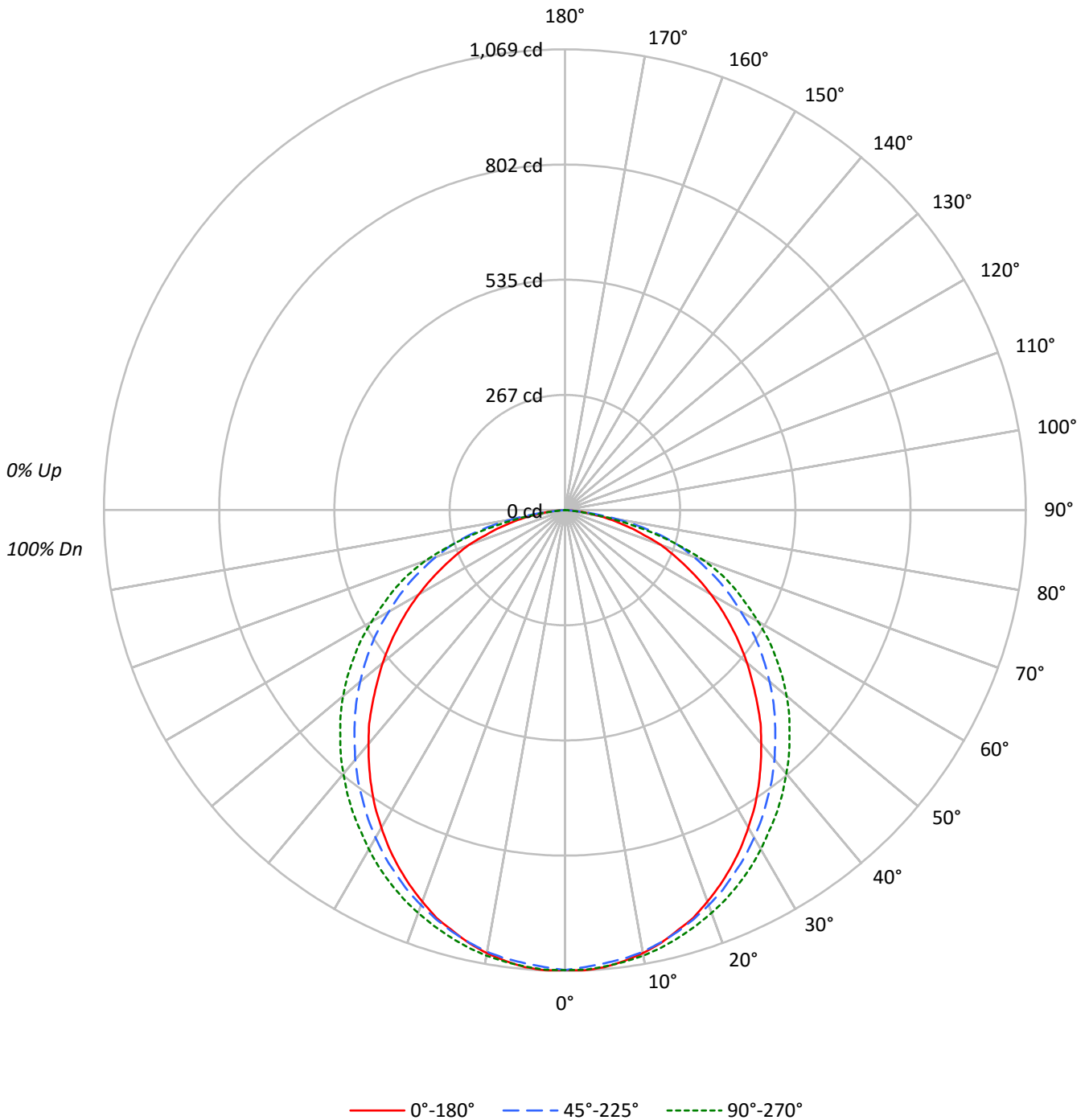
Input Watts (W): 25  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	2872	2872	2872
5°	2875	2851	2871
10°	2852	2844	2868
15°	2813	2821	2858
20°	2768	2794	2849
25°	2711	2760	2839
30°	2644	2727	2824
35°	2571	2688	2815
40°	2489	2656	2807
45°	2398	2623	2804
50°	2309	2594	2812
55°	2212	2573	2803
60°	2106	2537	2785
65°	1982	2530	2784
70°	1866	2507	2706
75°	1619	2451	2312
80°	1309	1976	1539
85°	871	685	457



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.8	3.4
10°-20°	286.8	9.6
20°-30°	430.2	14.4
30°-40°	513.2	17.2
40°-50°	530.6	17.7
50°-60°	484.4	16.2
60°-70°	381.2	12.7
70°-80°	221.9	7.4
80°-90°	40.9	1.4
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°	817.8	27.4
0°-40°	1331.0	44.5
0°-60°	2346.0	78.5
0°-90°	2990.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2990.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1067	1067	1067	1067	1067	
5°	1064	1062	1056	1064	1063	101
15°	1010	1011	1012	1026	1026	285
25°	913	918	930	952	956	420
35°	783	793	818	850	857	489
45°	630	651	689	728	737	487
55°	471	497	548	588	597	422
65°	311	344	397	428	437	309
75°	156	193	236	231	222	165
85°	28	40	22	18	15	37
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1067.4	1067.4	1067.4	1067.4	1067.4
2.5°	1068.9	1065.9	1061.5	1068.9	1067.4
5°	1064.4	1061.5	1055.5	1064.4	1062.9
7.5°	1055.5	1052.6	1049.6	1058.5	1057.0
10°	1043.7	1042.2	1040.7	1051.1	1049.6
12.5°	1028.8	1028.8	1027.4	1039.2	1039.2
15°	1009.6	1011.0	1012.5	1025.9	1025.9
17.5°	991.8	990.3	994.7	1009.6	1011.0
20°	966.6	969.5	975.5	993.3	994.7
22.5°	941.4	944.3	954.7	972.5	976.9
25°	913.2	917.7	929.5	951.7	956.2
27.5°	883.6	889.5	905.8	929.5	934.0
30°	850.9	859.8	877.6	904.3	908.8
32.5°	818.3	827.2	849.5	876.1	882.1
35°	782.7	793.1	818.3	849.5	856.9
37.5°	745.7	759.0	788.7	819.8	828.7
40°	708.6	723.4	756.1	788.7	799.1
42.5°	671.6	686.4	722.0	759.0	769.4
45°	630.1	650.8	689.3	727.9	736.8
47.5°	590.0	612.3	655.3	693.8	705.7
50°	551.5	573.7	619.7	659.7	671.6
52.5°	511.5	535.2	584.1	625.6	636.0
55°	471.4	496.6	548.5	588.5	597.4
57.5°	431.4	458.1	511.5	550.0	560.4
60°	391.4	419.5	471.4	510.0	517.4
62.5°	351.3	381.0	434.4	468.5	475.9
65°	311.3	343.9	397.3	428.4	437.3
67.5°	272.8	305.4	357.3	386.9	394.3
70°	237.2	266.8	318.7	341.0	343.9
72.5°	192.7	229.8	280.2	292.0	284.6
75°	155.7	192.7	235.7	231.3	222.4
77.5°	118.6	155.7	183.8	169.0	157.1
80°	84.5	121.6	127.5	105.3	99.3
82.5°	54.9	84.5	71.2	54.9	44.5
85°	28.2	40.0	22.2	17.8	14.8
87.5°	8.9	5.9	3.0	3.0	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)