

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: P312353

Luminaire Tested: **14FCZ2-29-UNV-L83050-S-CP125-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: P312353  
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-CP125-W2A-U-4500K  
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB 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: 2932.0 lumens  
Efficiency: N/A  
Efficacy: 117.3 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

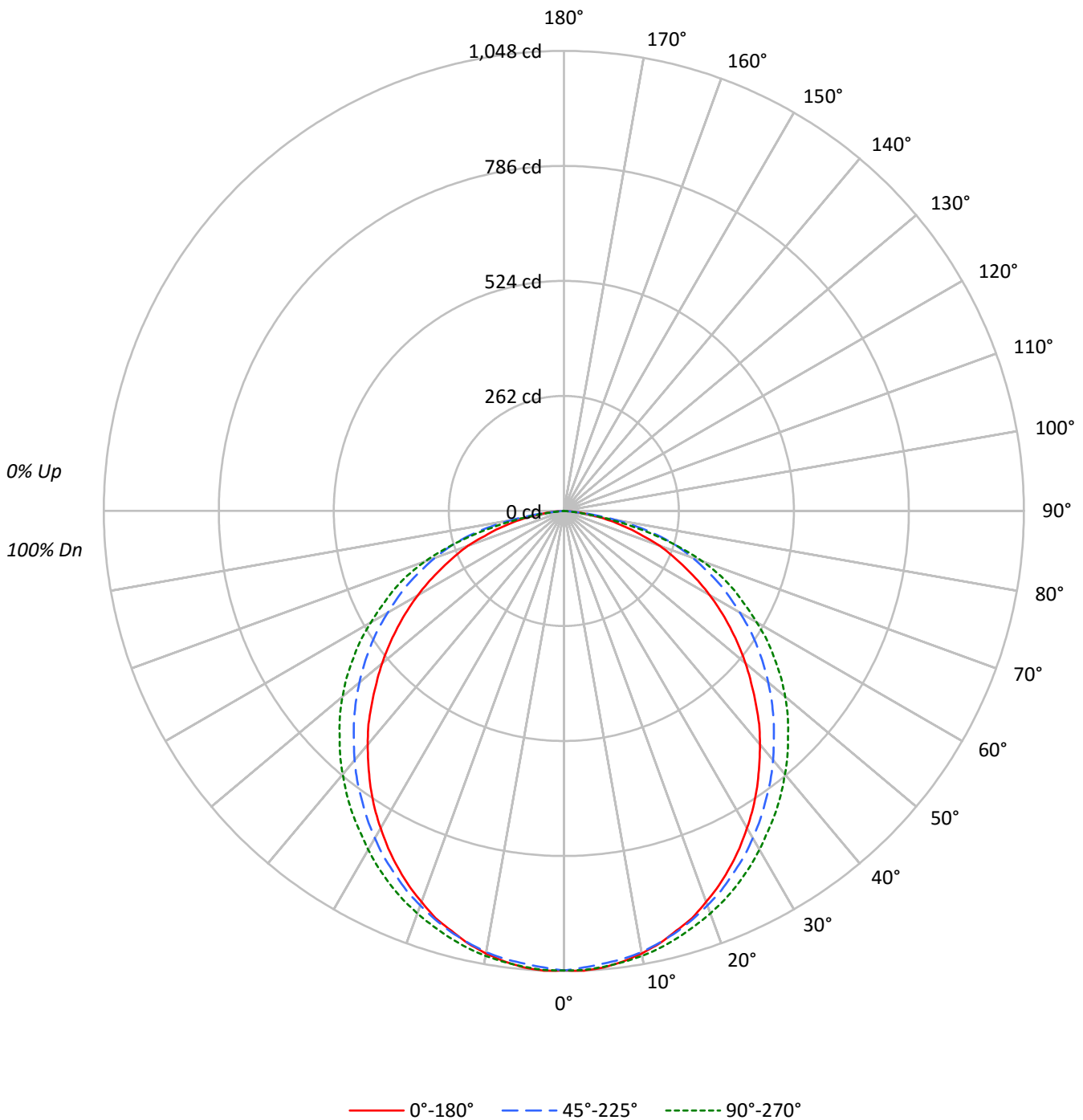
Input Watts (W): 25  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2817	2817	2817
5°	2820	2796	2816
10°	2796	2789	2812
15°	2758	2766	2803
20°	2714	2739	2793
25°	2659	2706	2784
30°	2593	2674	2769
35°	2522	2636	2760
40°	2441	2604	2753
45°	2351	2573	2750
50°	2264	2544	2757
55°	2169	2524	2748
60°	2066	2488	2730
65°	1944	2481	2730
70°	1830	2459	2654
75°	1587	2403	2268
80°	1285	1937	1509
85°	852	673	448



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	98.8	3.4
10°-20°	281.2	9.6
20°-30°	421.9	14.4
30°-40°	503.3	17.2
40°-50°	520.3	17.7
50°-60°	475.0	16.2
60°-70°	373.8	12.7
70°-80°	217.6	7.4
80°-90°	40.1	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°	802.0	27.4
0°-40°	1305.2	44.5
0°-60°	2300.5	78.5
0°-90°	2932.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2932.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1047	1047	1047	1047	1047	
5°	1044	1041	1035	1044	1042	99
15°	990	991	993	1006	1006	279
25°	896	900	912	933	938	412
35°	768	778	802	833	840	480
45°	618	638	676	714	722	477
55°	462	487	538	577	586	413
65°	305	337	390	420	429	303
75°	153	189	231	227	218	162
85°	28	39	22	17	14	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1046.7	1046.7	1046.7	1046.7	1046.7
2.5°	1048.1	1045.2	1040.9	1048.1	1046.7
5°	1043.8	1040.9	1035.0	1043.8	1042.3
7.5°	1035.0	1032.1	1029.2	1038.0	1036.5
10°	1023.4	1022.0	1020.5	1030.7	1029.2
12.5°	1008.9	1008.9	1007.4	1019.1	1019.1
15°	990.0	991.4	992.9	1006.0	1006.0
17.5°	972.5	971.1	975.4	990.0	991.4
20°	947.8	950.7	956.5	974.0	975.4
22.5°	923.1	926.0	936.2	953.6	958.0
25°	895.5	899.9	911.5	933.3	937.6
27.5°	866.4	872.2	888.2	911.5	915.8
30°	834.4	843.2	860.6	886.8	891.1
32.5°	802.5	811.2	833.0	859.1	865.0
35°	767.6	777.7	802.5	833.0	840.2
37.5°	731.2	744.3	773.4	803.9	812.6
40°	694.9	709.4	741.4	773.4	783.6
42.5°	658.5	673.1	708.0	744.3	754.5
45°	617.8	638.2	676.0	713.8	722.5
47.5°	578.6	600.4	642.5	680.3	692.0
50°	540.8	562.6	607.7	646.9	658.5
52.5°	501.5	524.8	572.8	613.5	623.6
55°	462.3	487.0	537.9	577.1	585.8
57.5°	423.0	449.2	501.5	539.3	549.5
60°	383.8	411.4	462.3	500.1	507.3
62.5°	344.5	373.6	425.9	459.4	466.6
65°	305.3	337.3	389.6	420.1	428.8
67.5°	267.5	299.5	350.3	379.4	386.7
70°	232.6	261.7	312.5	334.4	337.3
72.5°	189.0	225.3	274.8	286.4	279.1
75°	152.6	189.0	231.1	226.8	218.1
77.5°	116.3	152.6	180.3	165.7	154.1
80°	82.9	119.2	125.0	103.2	97.4
82.5°	53.8	82.9	69.8	53.8	43.6
85°	27.6	39.3	21.8	17.4	14.5
87.5°	8.7	5.8	2.9	2.9	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)