

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: P309879

Luminaire Tested: **24FCZ2-30-UNV-L82765-RDP-CP125-W2A-U-3000K**

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: P309879  
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-L82765-RDP-CP125-W2A-U-3000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET  
Light Source: (168) 3000K 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: 1720.0 lumens  
Efficiency: N/A  
Efficacy: 74.1 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

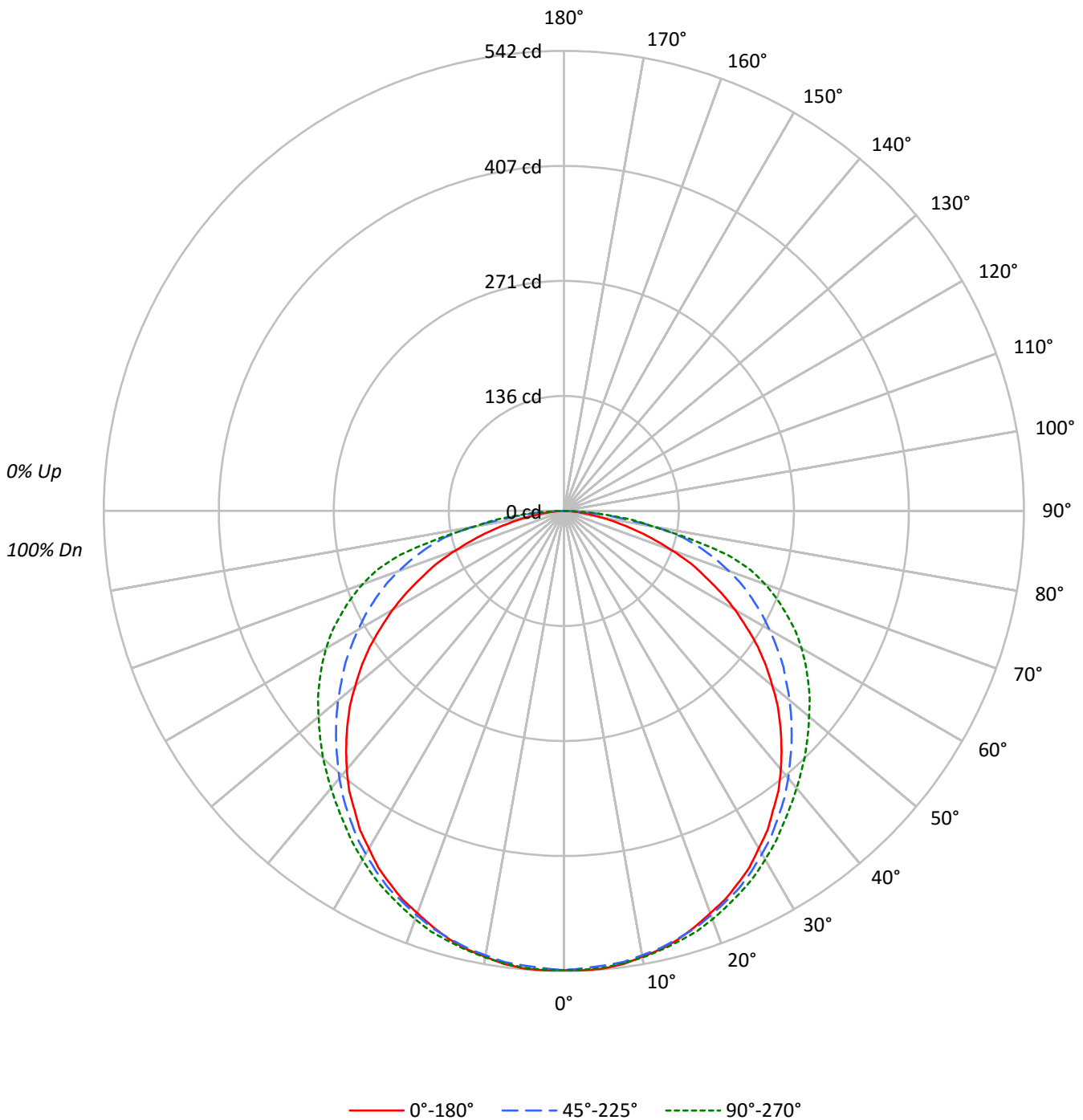
Input Watts (W): 23.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	728	728	728
5°	731	726	729
10°	728	726	730
15°	727	726	731
20°	722	726	733
25°	719	727	735
30°	713	725	737
35°	706	723	740
40°	698	722	749
45°	687	722	766
50°	672	727	789
55°	654	738	825
60°	627	753	870
65°	587	780	924
70°	533	816	993
75°	452	860	1038
80°	357	866	839
85°	264	659	738



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.3	3.0
10°-20°	147.7	8.6
20°-30°	225.8	13.1
30°-40°	276.1	16.0
40°-50°	294.2	17.1
50°-60°	281.3	16.4
60°-70°	238.3	13.9
70°-80°	160.2	9.3
80°-90°	45.2	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°	424.8	24.7
0°-40°	700.8	40.7
0°-60°	1276.4	74.2
0°-90°	1720.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1720.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	541	541	541	541	541	
5°	541	540	538	540	540	51
15°	522	522	521	526	525	147
25°	485	486	490	494	495	223
35°	430	433	440	449	450	269
45°	361	367	380	396	403	278
55°	279	289	315	340	352	248
65°	184	203	245	277	290	183
75°	87	119	166	194	200	93
85°	17	35	43	46	48	21
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	540.9	540.9	540.9	540.9	540.9
2.5°	541.7	541.7	539.2	540.9	540.9
5°	540.9	540.0	537.5	540.0	540.0
7.5°	538.3	537.5	535.8	538.3	537.5
10°	533.2	533.2	531.5	534.1	534.1
12.5°	528.9	528.1	527.2	530.7	529.8
15°	522.1	522.1	521.3	525.5	524.7
17.5°	513.6	514.4	515.3	518.7	519.6
20°	504.2	505.9	506.8	511.9	511.9
22.5°	495.7	496.5	498.2	503.4	503.4
25°	484.6	486.3	489.7	494.0	494.8
27.5°	473.5	474.3	478.6	484.6	485.4
30°	459.0	461.5	466.7	473.5	474.3
32.5°	446.2	448.8	454.7	461.5	463.3
35°	430.0	433.4	440.2	448.8	450.5
37.5°	415.5	418.0	426.6	436.0	438.5
40°	397.6	402.7	411.2	422.3	426.6
42.5°	379.6	384.8	395.0	409.5	414.6
45°	360.9	366.9	379.6	395.9	402.7
47.5°	342.1	348.9	363.4	382.2	389.9
50°	320.8	329.3	347.2	368.6	377.1
52.5°	300.3	310.5	330.2	354.1	365.1
55°	279.0	289.2	314.8	339.5	351.5
57.5°	255.1	268.7	296.9	325.0	337.8
60°	232.9	245.7	279.8	310.5	323.3
62.5°	209.0	226.1	262.8	295.2	308.0
65°	184.3	203.0	244.9	277.3	290.1
67.5°	162.1	182.6	226.9	259.4	272.2
70°	135.6	161.2	207.3	239.7	252.5
72.5°	110.9	139.1	186.8	218.4	230.3
75°	87.0	118.6	165.5	193.7	199.6
77.5°	64.8	98.1	143.3	155.3	151.0
80°	46.1	78.5	111.8	105.8	108.3
82.5°	29.9	59.7	69.1	78.5	81.0
85°	17.1	35.0	42.7	46.1	47.8
87.5°	7.7	12.8	17.1	17.1	16.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)