

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: P309878

Luminaire Tested: **24FCZ2-30-UNV-L82765-RDP-CP125-W2A-U-2700K**

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: P309878  
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-2700K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET  
Light Source: (168) 2700K 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: 1672.0 lumens  
Efficiency: N/A  
Efficacy: 71.5 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

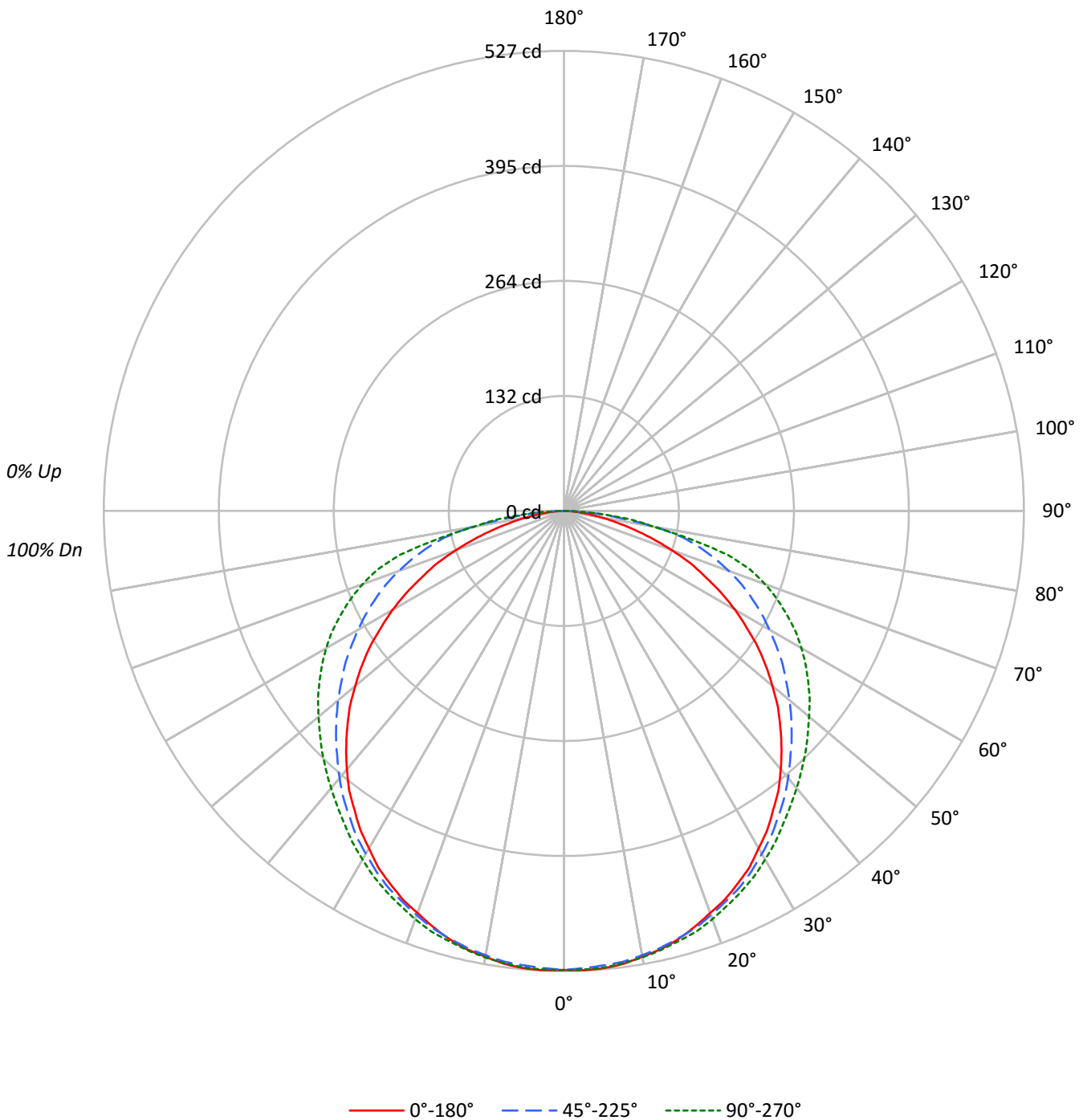
Input Watts (W): 23.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	707	707	707
5°	710	706	709
10°	708	706	709
15°	707	706	710
20°	702	705	712
25°	699	707	714
30°	693	705	716
35°	687	703	719
40°	679	702	728
45°	668	702	745
50°	653	706	767
55°	636	718	802
60°	609	732	846
65°	570	758	898
70°	519	793	966
75°	440	836	1009
80°	347	841	816
85°	256	641	716



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	49.9	3.0
10°-20°	143.5	8.6
20°-30°	219.5	13.1
30°-40°	268.3	16.0
40°-50°	286.0	17.1
50°-60°	273.5	16.4
60°-70°	231.6	13.9
70°-80°	155.7	9.3
80°-90°	43.9	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°	412.9	24.7
0°-40°	681.3	40.7
0°-60°	1240.7	74.2
0°-90°	1672.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1672.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	526	526	526	526	526	
5°	526	525	522	525	525	50
15°	508	508	507	511	510	143
25°	471	473	476	480	481	217
35°	418	421	428	436	438	262
45°	351	357	369	385	391	271
55°	271	281	306	330	342	242
65°	179	197	238	270	282	178
75°	85	115	161	188	194	91
85°	17	34	42	45	46	21
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	525.8	525.8	525.8	525.8	525.8
2.5°	526.6	526.6	524.1	525.8	525.8
5°	525.8	525.0	522.5	525.0	525.0
7.5°	523.3	522.5	520.8	523.3	522.5
10°	518.3	518.3	516.7	519.2	519.2
12.5°	514.2	513.4	512.5	515.8	515.0
15°	507.6	507.6	506.7	510.9	510.0
17.5°	499.3	500.1	500.9	504.2	505.1
20°	490.1	491.8	492.6	497.6	497.6
22.5°	481.8	482.7	484.3	489.3	489.3
25°	471.1	472.7	476.0	480.2	481.0
27.5°	460.3	461.1	465.3	471.1	471.9
30°	446.2	448.7	453.6	460.3	461.1
32.5°	433.7	436.2	442.0	448.7	450.3
35°	418.0	421.3	427.9	436.2	437.9
37.5°	403.9	406.4	414.7	423.8	426.3
40°	386.5	391.4	399.7	410.5	414.7
42.5°	369.1	374.0	384.0	398.1	403.1
45°	350.8	356.6	369.1	384.8	391.4
47.5°	332.6	339.2	353.3	371.5	379.0
50°	311.8	320.1	337.5	358.3	366.6
52.5°	291.9	301.9	321.0	344.2	355.0
55°	271.2	281.1	306.0	330.1	341.7
57.5°	248.0	261.2	288.6	316.0	328.4
60°	226.4	238.8	272.0	301.9	314.3
62.5°	203.2	219.8	255.4	286.9	299.4
65°	179.1	197.4	238.0	269.5	282.0
67.5°	157.6	177.5	220.6	252.1	264.6
70°	131.9	156.7	201.5	233.0	245.5
72.5°	107.8	135.2	181.6	212.3	223.9
75°	84.6	115.3	160.9	188.3	194.1
77.5°	63.0	95.4	139.3	150.9	146.8
80°	44.8	76.3	108.6	102.8	105.3
82.5°	29.0	58.1	67.2	76.3	78.8
85°	16.6	34.0	41.5	44.8	46.4
87.5°	7.5	12.4	16.6	16.6	15.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)