

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: P309886

Luminaire Tested: **24FCZ2-30-UNV-L82765-RDP-CP125-W2A-U-6500K**

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: P309886  
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-6500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET  
Light Source: (168) 6500K 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**

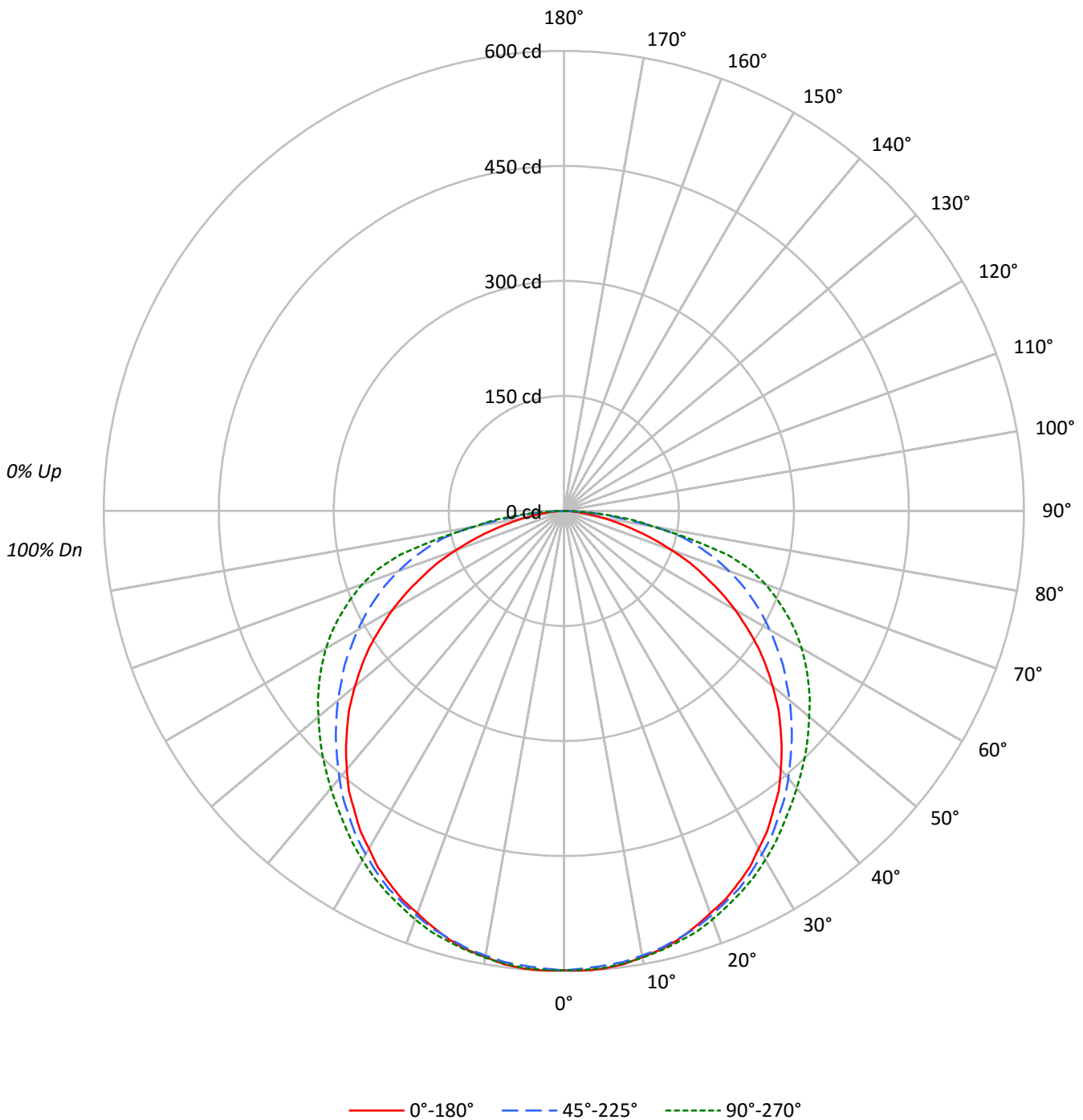
Lumens per Lamp: N/A  
Luminaire Lumens: 1905.0 lumens  
Efficiency: N/A  
Efficacy: 78.1 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 24.4  
Input Voltage (V): NR  
Input Current (A<sub>in</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	68	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°	806	806	806
5°	809	804	808
10°	807	804	808
15°	806	804	809
20°	800	804	812
25°	797	805	814
30°	790	803	816
35°	782	801	819
40°	773	800	830
45°	761	800	849
50°	744	805	874
55°	725	818	913
60°	694	834	964
65°	650	863	1023
70°	591	903	1100
75°	501	953	1149
80°	395	959	930
85°	292	729	817



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.8	3.0
10°-20°	163.5	8.6
20°-30°	250.1	13.1
30°-40°	305.7	16.0
40°-50°	325.9	17.1
50°-60°	311.6	16.4
60°-70°	263.9	13.9
70°-80°	177.4	9.3
80°-90°	50.0	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°	470.5	24.7
0°-40°	776.2	40.7
0°-60°	1413.6	74.2
0°-90°	1905.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1905.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	599	599	599	599	599	
5°	599	598	595	598	598	57
15°	578	578	577	582	581	163
25°	537	539	542	547	548	247
35°	476	480	488	497	499	298
45°	400	406	420	438	446	308
55°	309	320	349	376	389	275
65°	204	225	271	307	321	203
75°	96	131	183	214	221	103
85°	19	39	47	51	53	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	599.1	599.1	599.1	599.1	599.1
2.5°	600.0	600.0	597.2	599.1	599.1
5°	599.1	598.1	595.3	598.1	598.1
7.5°	596.2	595.3	593.4	596.2	595.3
10°	590.6	590.6	588.7	591.5	591.5
12.5°	585.8	584.9	583.9	587.7	586.8
15°	578.3	578.3	577.3	582.1	581.1
17.5°	568.8	569.8	570.7	574.5	575.4
20°	558.4	560.3	561.3	566.9	566.9
22.5°	549.0	549.9	551.8	557.5	557.5
25°	536.7	538.6	542.4	547.1	548.0
27.5°	524.4	525.4	530.1	536.7	537.6
30°	508.4	511.2	516.9	524.4	525.4
32.5°	494.2	497.0	503.6	511.2	513.1
35°	476.2	480.0	487.6	497.0	498.9
37.5°	460.2	463.0	472.5	482.8	485.7
40°	440.3	446.0	455.4	467.7	472.5
42.5°	420.5	426.2	437.5	453.6	459.2
45°	399.7	406.3	420.5	438.4	446.0
47.5°	378.9	386.5	402.5	423.3	431.8
50°	355.3	364.7	384.6	408.2	417.6
52.5°	332.6	343.9	365.7	392.1	404.4
55°	309.0	320.3	348.7	376.1	389.3
57.5°	282.5	297.6	328.8	360.0	374.2
60°	258.0	272.1	309.9	343.9	358.1
62.5°	231.5	250.4	291.0	326.9	341.1
65°	204.1	224.9	271.2	307.1	321.3
67.5°	179.5	202.2	251.3	287.3	301.4
70°	150.2	178.6	229.6	265.5	279.7
72.5°	122.8	154.0	206.9	241.9	255.1
75°	96.4	131.3	183.3	214.5	221.1
77.5°	71.8	108.7	158.7	172.0	167.2
80°	51.0	86.9	123.8	117.2	120.0
82.5°	33.1	66.1	76.5	86.9	89.8
85°	18.9	38.7	47.2	51.0	52.9
87.5°	8.5	14.2	18.9	18.9	18.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)