

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: P309824

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-RDP-CA125-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: P309824  
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: 24FCZ2-30HE-UNV-L82765-RDP-CA125-W2A-U-2700K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET  
Light Source: (336) 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**

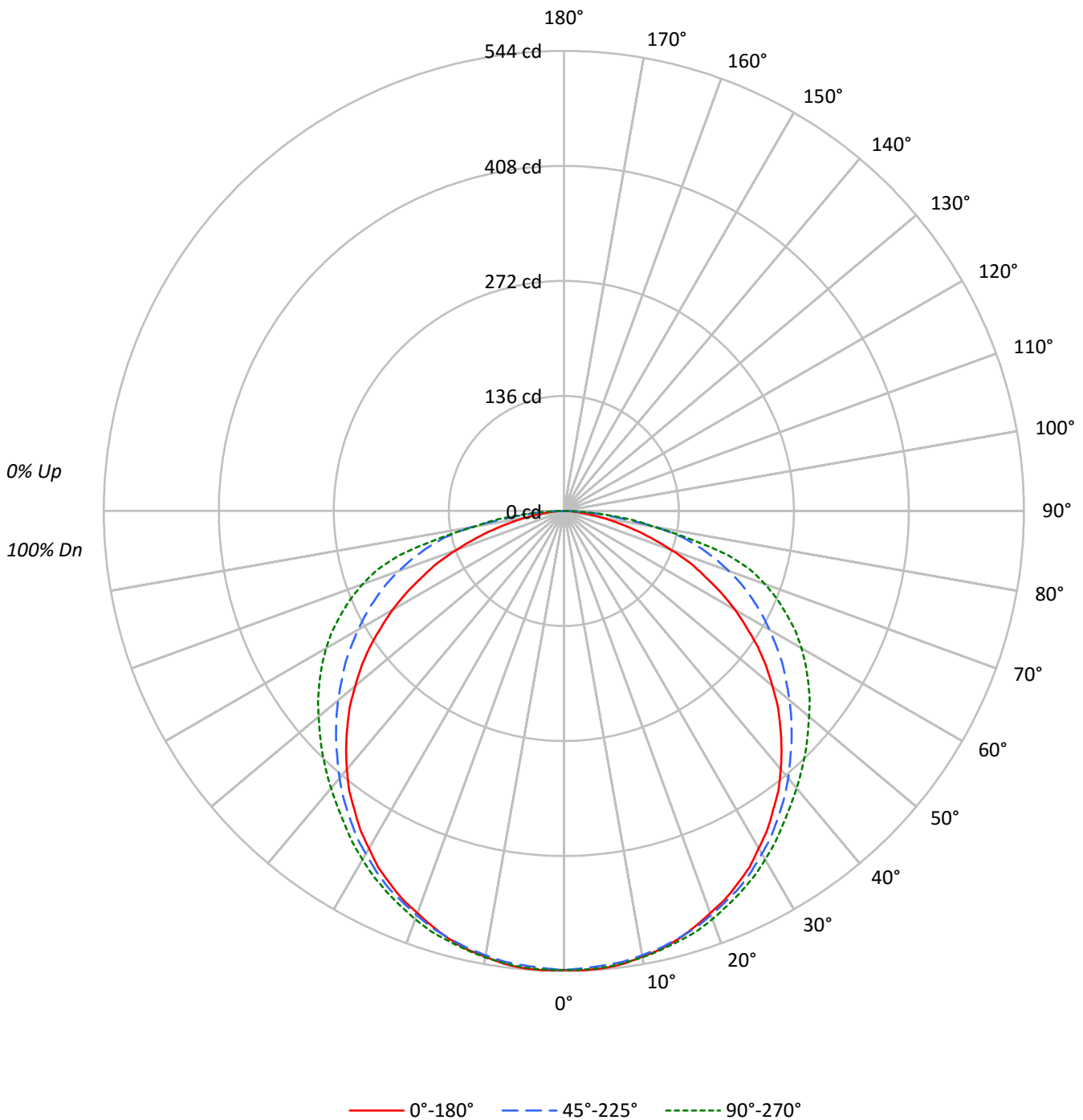
Lumens per Lamp: N/A  
Luminaire Lumens: 1726.0 lumens  
Efficiency: N/A  
Efficacy: 81.8 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 21.1  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	730	730	730
5°	733	729	732
10°	731	729	732
15°	730	729	733
20°	725	728	736
25°	722	730	737
30°	716	728	740
35°	709	726	742
40°	701	725	752
45°	689	725	769
50°	674	729	792
55°	657	741	827
60°	629	756	873
65°	589	782	927
70°	535	818	997
75°	454	863	1041
80°	358	869	842
85°	264	661	739



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.5	3.0
10°-20°	148.2	8.6
20°-30°	226.6	13.1
30°-40°	277.0	16.0
40°-50°	295.2	17.1
50°-60°	282.3	16.4
60°-70°	239.1	13.9
70°-80°	160.7	9.3
80°-90°	45.3	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°	426.3	24.7
0°-40°	703.3	40.7
0°-60°	1280.8	74.2
0°-90°	1726.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1726.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	543	543	543	543	543	
5°	543	542	539	542	542	52
15°	524	524	523	527	526	148
25°	486	488	491	496	496	224
35°	432	435	442	450	452	270
45°	362	368	381	397	404	279
55°	280	290	316	341	353	249
65°	185	204	246	278	291	184
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°	542.8	542.8	542.8	542.8	542.8
2.5°	543.6	543.6	541.1	542.8	542.8
5°	542.8	541.9	539.4	541.9	541.9
7.5°	540.2	539.4	537.6	540.2	539.4
10°	535.1	535.1	533.4	535.9	535.9
12.5°	530.8	529.9	529.1	532.5	531.6
15°	523.9	523.9	523.1	527.4	526.5
17.5°	515.4	516.2	517.1	520.5	521.4
20°	506.0	507.7	508.5	513.7	513.7
22.5°	497.4	498.3	500.0	505.1	505.1
25°	486.3	488.0	491.4	495.7	496.5
27.5°	475.1	476.0	480.3	486.3	487.1
30°	460.6	463.2	468.3	475.1	476.0
32.5°	447.7	450.3	456.3	463.2	464.9
35°	431.5	434.9	441.8	450.3	452.0
37.5°	416.9	419.5	428.1	437.5	440.0
40°	399.0	404.1	412.6	423.8	428.1
42.5°	381.0	386.1	396.4	410.9	416.1
45°	362.1	368.1	381.0	397.2	404.1
47.5°	343.3	350.2	364.7	383.5	391.2
50°	321.9	330.5	348.4	369.8	378.4
52.5°	301.4	311.6	331.3	355.3	366.4
55°	280.0	290.2	315.9	340.7	352.7
57.5°	256.0	269.7	297.9	326.2	339.0
60°	233.7	246.6	280.8	311.6	324.5
62.5°	209.7	226.9	263.7	296.2	309.1
65°	184.9	203.8	245.7	278.2	291.1
67.5°	162.7	183.2	227.7	260.3	273.1
70°	136.1	161.8	208.0	240.6	253.4
72.5°	111.3	139.5	187.5	219.2	231.2
75°	87.3	119.0	166.1	194.3	200.3
77.5°	65.1	98.5	143.8	155.8	151.5
80°	46.2	78.8	112.2	106.2	108.7
82.5°	30.0	59.9	69.3	78.8	81.3
85°	17.1	35.1	42.8	46.2	47.9
87.5°	7.7	12.8	17.1	17.1	16.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)