

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: P313436

Luminaire Tested: **24FCZ2-30HE-UNV-L83050-RDP-CP250-W2A-U-3500K**

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: P313436  
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-L83050-RDP-CP250-W2A-U-3500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" POLYCARB SHEET  
Light Source: (336) 3500K 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**

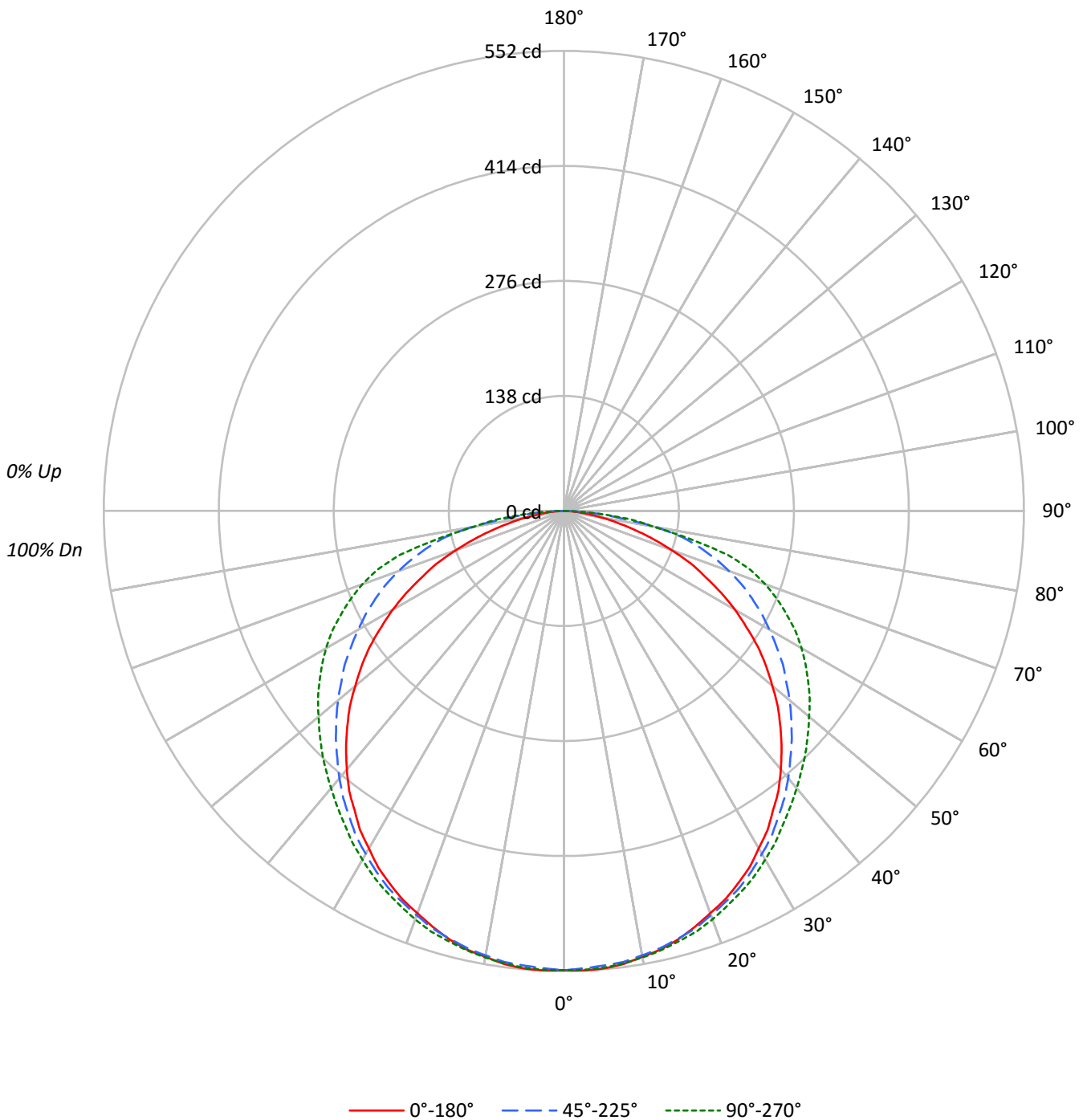
Lumens per Lamp: N/A  
Luminaire Lumens: 1752.0 lumens  
Efficiency: N/A  
Efficacy: 83.0 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 21.1  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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°	741	741	741
5°	744	739	743
10°	742	740	743
15°	741	740	744
20°	735	739	747
25°	733	741	748
30°	726	738	751
35°	719	737	754
40°	711	736	763
45°	699	736	781
50°	684	740	804
55°	667	752	840
60°	638	767	886
65°	598	794	941
70°	544	831	1012
75°	461	876	1057
80°	363	882	855
85°	269	672	752



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.3	3.0
10°-20°	150.4	8.6
20°-30°	230.0	13.1
30°-40°	281.2	16.0
40°-50°	299.7	17.1
50°-60°	286.5	16.4
60°-70°	242.7	13.9
70°-80°	163.1	9.3
80°-90°	46.0	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°	432.7	24.7
0°-40°	713.9	40.7
0°-60°	1300.1	74.2
0°-90°	1752.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1752.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	551	551	551	551	551	
5°	551	550	548	550	550	52
15°	532	532	531	535	534	150
25°	494	495	499	503	504	227
35°	438	442	448	457	459	274
45°	368	374	387	403	410	284
55°	284	295	321	346	358	253
65°	188	207	249	282	296	186
75°	89	121	169	197	203	95
85°	17	36	44	47	49	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	551.0	551.0	551.0	551.0	551.0
2.5°	551.8	551.8	549.2	551.0	551.0
5°	551.0	550.1	547.5	550.1	550.1
7.5°	548.3	547.5	545.7	548.3	547.5
10°	543.1	543.1	541.4	544.0	544.0
12.5°	538.8	537.9	537.0	540.5	539.7
15°	531.8	531.8	531.0	535.3	534.4
17.5°	523.1	524.0	524.9	528.4	529.2
20°	513.6	515.3	516.2	521.4	521.4
22.5°	504.9	505.8	507.5	512.7	512.7
25°	493.6	495.3	498.8	503.2	504.0
27.5°	482.3	483.2	487.5	493.6	494.5
30°	467.5	470.1	475.3	482.3	483.2
32.5°	454.5	457.1	463.2	470.1	471.9
35°	438.0	441.5	448.4	457.1	458.8
37.5°	423.2	425.8	434.5	444.1	446.7
40°	405.0	410.2	418.9	430.2	434.5
42.5°	386.7	391.9	402.4	417.1	422.3
45°	367.6	373.7	386.7	403.2	410.2
47.5°	348.5	355.4	370.2	389.3	397.1
50°	326.7	335.4	353.7	375.4	384.1
52.5°	305.9	316.3	336.3	360.6	371.9
55°	284.2	294.6	320.7	345.9	358.0
57.5°	259.8	273.7	302.4	331.1	344.1
60°	237.2	250.3	285.0	316.3	329.4
62.5°	212.9	230.3	267.7	300.7	313.7
65°	187.7	206.8	249.4	282.4	295.5
67.5°	165.1	186.0	231.2	264.2	277.2
70°	138.2	164.2	211.2	244.2	257.2
72.5°	113.0	141.6	190.3	222.5	234.6
75°	88.6	120.8	168.6	197.3	203.3
77.5°	66.0	99.9	146.0	158.2	153.8
80°	46.9	79.9	113.8	107.8	110.4
82.5°	30.4	60.8	70.4	79.9	82.6
85°	17.4	35.6	43.5	46.9	48.7
87.5°	7.8	13.0	17.4	17.4	16.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)