

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: P313445

Luminaire Tested: **24FCZ2-30-UNV-L83050-RDP-CA125-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: P313445  
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-L83050-RDP-CA125-W2A-U-3000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC 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**

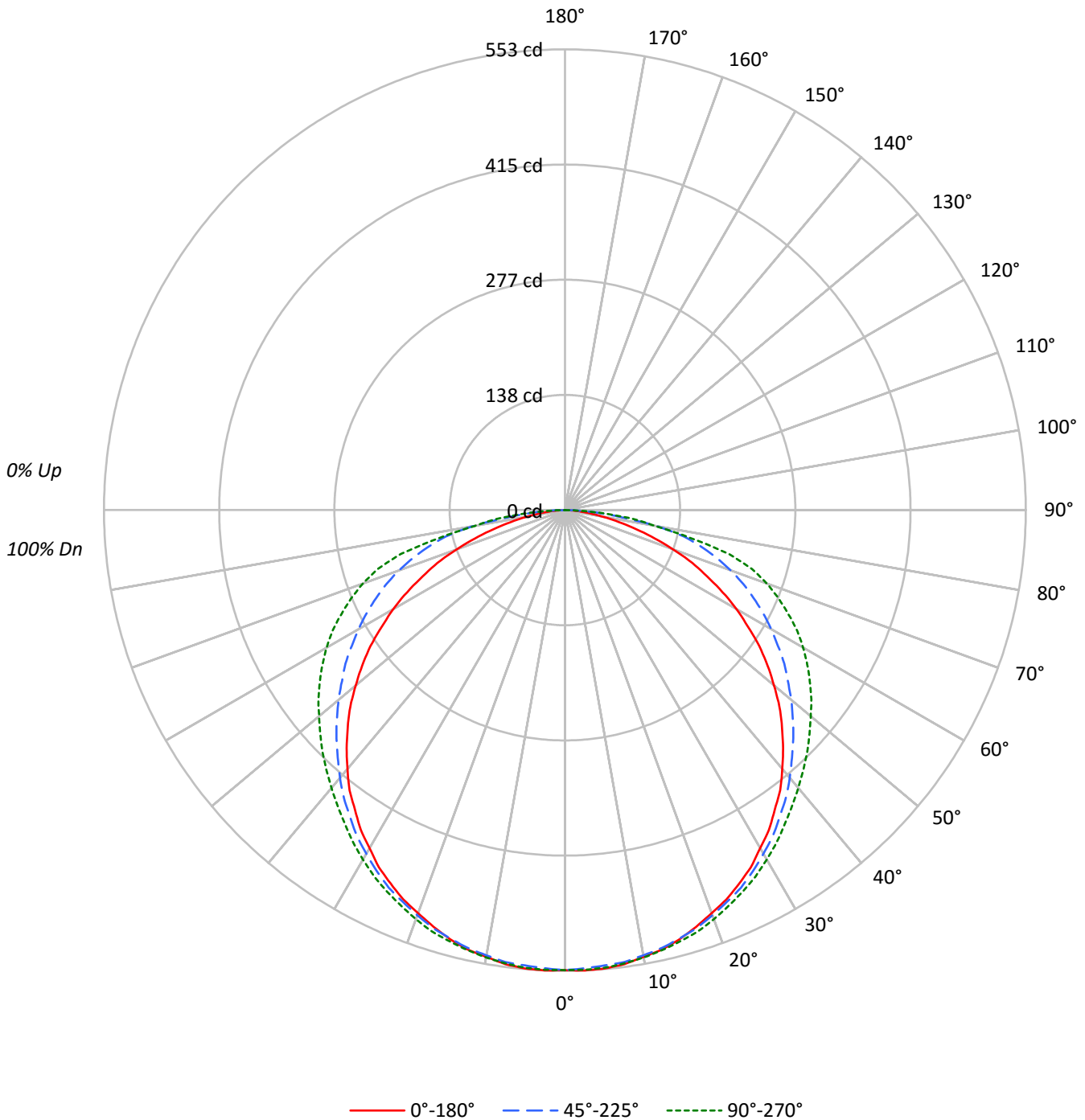
Lumens per Lamp: N/A  
Luminaire Lumens: 1756.0 lumens  
Efficiency: N/A  
Efficacy: 75.0 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 23.4  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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°	743	743	743
5°	746	741	745
10°	744	741	745
15°	742	741	746
20°	737	741	748
25°	734	742	750
30°	728	740	752
35°	721	738	755
40°	713	737	765
45°	701	738	782
50°	686	742	806
55°	668	754	842
60°	640	769	888
65°	599	796	943
70°	545	833	1014
75°	462	879	1059
80°	364	884	857
85°	269	672	753



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.4	3.0
10°-20°	150.8	8.6
20°-30°	230.5	13.1
30°-40°	281.8	16.0
40°-50°	300.4	17.1
50°-60°	287.2	16.4
60°-70°	243.3	13.9
70°-80°	163.5	9.3
80°-90°	46.1	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°	433.7	24.7
0°-40°	715.5	40.7
0°-60°	1303.1	74.2
0°-90°	1756.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1756.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	552	552	552	552	552	
5°	552	551	549	551	551	52
15°	533	533	532	536	536	150
25°	495	496	500	504	505	228
35°	439	442	449	458	460	275
45°	368	374	388	404	411	284
55°	285	295	321	347	359	254
65°	188	207	250	283	296	187
75°	89	121	169	198	204	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°	552.2	552.2	552.2	552.2	552.2
2.5°	553.1	553.1	550.5	552.2	552.2
5°	552.2	551.3	548.7	551.3	551.3
7.5°	549.6	548.7	547.0	549.6	548.7
10°	544.4	544.4	542.6	545.2	545.2
12.5°	540.0	539.1	538.3	541.8	540.9
15°	533.0	533.0	532.2	536.5	535.7
17.5°	524.3	525.2	526.1	529.6	530.4
20°	514.8	516.5	517.4	522.6	522.6
22.5°	506.0	506.9	508.7	513.9	513.9
25°	494.7	496.5	500.0	504.3	505.2
27.5°	483.4	484.3	488.6	494.7	495.6
30°	468.6	471.2	476.4	483.4	484.3
32.5°	455.5	458.1	464.2	471.2	473.0
35°	439.0	442.5	449.4	458.1	459.9
37.5°	424.2	426.8	435.5	445.1	447.7
40°	405.9	411.1	419.8	431.1	435.5
42.5°	387.6	392.8	403.3	418.1	423.3
45°	368.4	374.5	387.6	404.1	411.1
47.5°	349.3	356.2	371.0	390.2	398.0
50°	327.5	336.2	354.5	376.3	385.0
52.5°	306.6	317.0	337.1	361.5	372.8
55°	284.8	295.3	321.4	346.7	358.9
57.5°	260.4	274.4	303.1	331.8	344.9
60°	237.8	250.8	285.7	317.0	330.1
62.5°	213.4	230.8	268.3	301.4	314.4
65°	188.1	207.3	250.0	283.1	296.1
67.5°	165.5	186.4	231.7	264.8	277.8
70°	138.5	164.6	211.7	244.8	257.8
72.5°	113.2	142.0	190.7	223.0	235.2
75°	88.8	121.1	169.0	197.7	203.8
77.5°	66.2	100.2	146.3	158.5	154.2
80°	47.0	80.1	114.1	108.0	110.6
82.5°	30.5	61.0	70.6	80.1	82.7
85°	17.4	35.7	43.5	47.0	48.8
87.5°	7.8	13.1	17.4	17.4	16.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)