

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: P313495

Luminaire Tested: **24FCZ2-35-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: P313495  
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: 24FCZ2-35-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**

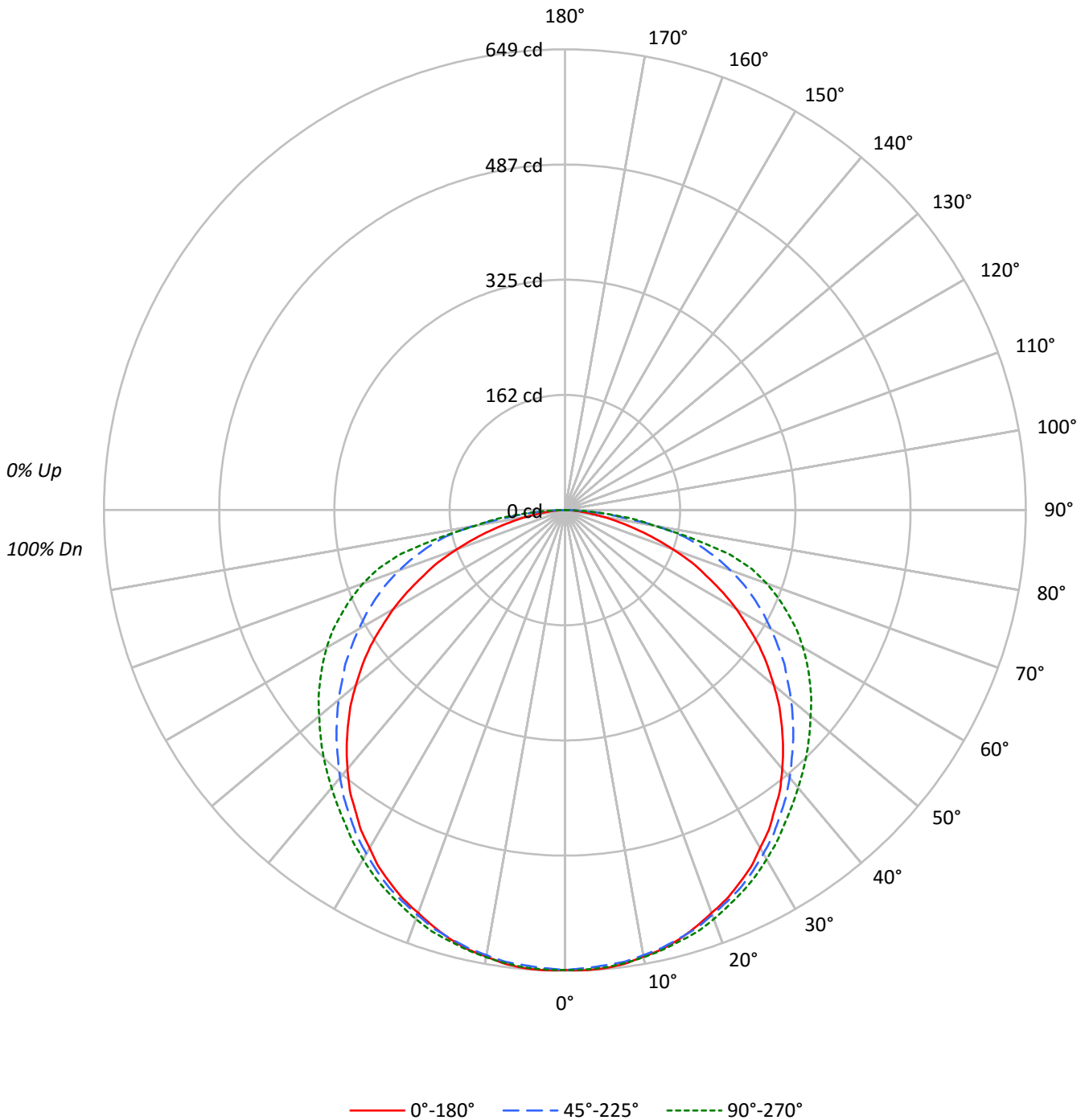
Lumens per Lamp: N/A  
Luminaire Lumens: 2060.0 lumens  
Efficiency: N/A  
Efficacy: 73.8 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 27.9  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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					100			
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82					82			
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67					67			
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56					56			
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47					47			
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40					40			
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35					35			
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31					31			
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27					27			
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24					24			
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22					22			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	872	872	872
5°	875	869	874
10°	872	870	874
15°	871	870	875
20°	865	869	878
25°	862	871	880
30°	854	868	883
35°	846	866	886
40°	836	865	897
45°	822	865	918
50°	804	871	945
55°	784	884	988
60°	751	902	1042
65°	703	934	1106
70°	639	977	1190
75°	542	1030	1243
80°	428	1038	1006
85°	315	789	883



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.4	3.0
10°-20°	176.9	8.6
20°-30°	270.5	13.1
30°-40°	330.6	16.0
40°-50°	352.4	17.1
50°-60°	336.9	16.4
60°-70°	285.4	13.9
70°-80°	191.8	9.3
80°-90°	54.1	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°	508.8	24.7
0°-40°	839.4	40.7
0°-60°	1528.7	74.2
0°-90°	2060.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2060.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	648	648	648	648	648	
5°	648	647	644	647	647	62
15°	625	625	624	629	628	176
25°	580	582	586	592	593	268
35°	515	519	527	538	540	323
45°	432	439	455	474	482	333
55°	334	346	377	407	421	298
65°	221	243	293	332	347	219
75°	104	142	198	232	239	112
85°	20	42	51	55	57	25
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	647.8	647.8	647.8	647.8	647.8
2.5°	648.8	648.8	645.8	647.8	647.8
5°	647.8	646.8	643.7	646.8	646.8
7.5°	644.7	643.7	641.7	644.7	643.7
10°	638.6	638.6	636.6	639.6	639.6
12.5°	633.5	632.5	631.5	635.5	634.5
15°	625.3	625.3	624.3	629.4	628.4
17.5°	615.1	616.1	617.2	621.2	622.3
20°	603.9	605.9	606.9	613.1	613.1
22.5°	593.7	594.7	596.7	602.9	602.9
25°	580.4	582.4	586.5	591.6	592.6
27.5°	567.1	568.1	573.2	580.4	581.4
30°	549.7	552.8	558.9	567.1	568.1
32.5°	534.4	537.5	544.6	552.8	554.8
35°	515.0	519.1	527.2	537.5	539.5
37.5°	497.6	500.7	510.9	522.1	525.2
40°	476.2	482.3	492.5	505.8	510.9
42.5°	454.7	460.8	473.1	490.5	496.6
45°	432.2	439.4	454.7	474.1	482.3
47.5°	409.7	417.9	435.3	457.8	467.0
50°	384.2	394.4	415.9	441.4	451.6
52.5°	359.7	371.9	395.4	424.0	437.3
55°	334.1	346.4	377.0	406.7	421.0
57.5°	305.5	321.9	355.6	389.3	404.6
60°	278.9	294.3	335.1	371.9	387.3
62.5°	250.3	270.8	314.7	353.5	368.9
65°	220.7	243.2	293.3	332.1	347.4
67.5°	194.1	218.7	271.8	310.6	325.9
70°	162.5	193.1	248.3	287.1	302.4
72.5°	132.8	166.6	223.8	261.6	275.9
75°	104.2	142.0	198.2	231.9	239.1
77.5°	77.7	117.5	171.7	186.0	180.9
80°	55.2	94.0	133.9	126.7	129.8
82.5°	35.8	71.5	82.8	94.0	97.1
85°	20.4	41.9	51.1	55.2	57.2
87.5°	9.2	15.3	20.4	20.4	19.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)