

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: P310247

Luminaire Tested: **24FCZ2-50-UNV-L82765-RDP-CP187-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: P310247  
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: 24FCZ2-50-UNV-L82765-RDP-CP187-W2A-U-2700K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.187" POLYCARB SHEET  
Light Source: (168) 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**

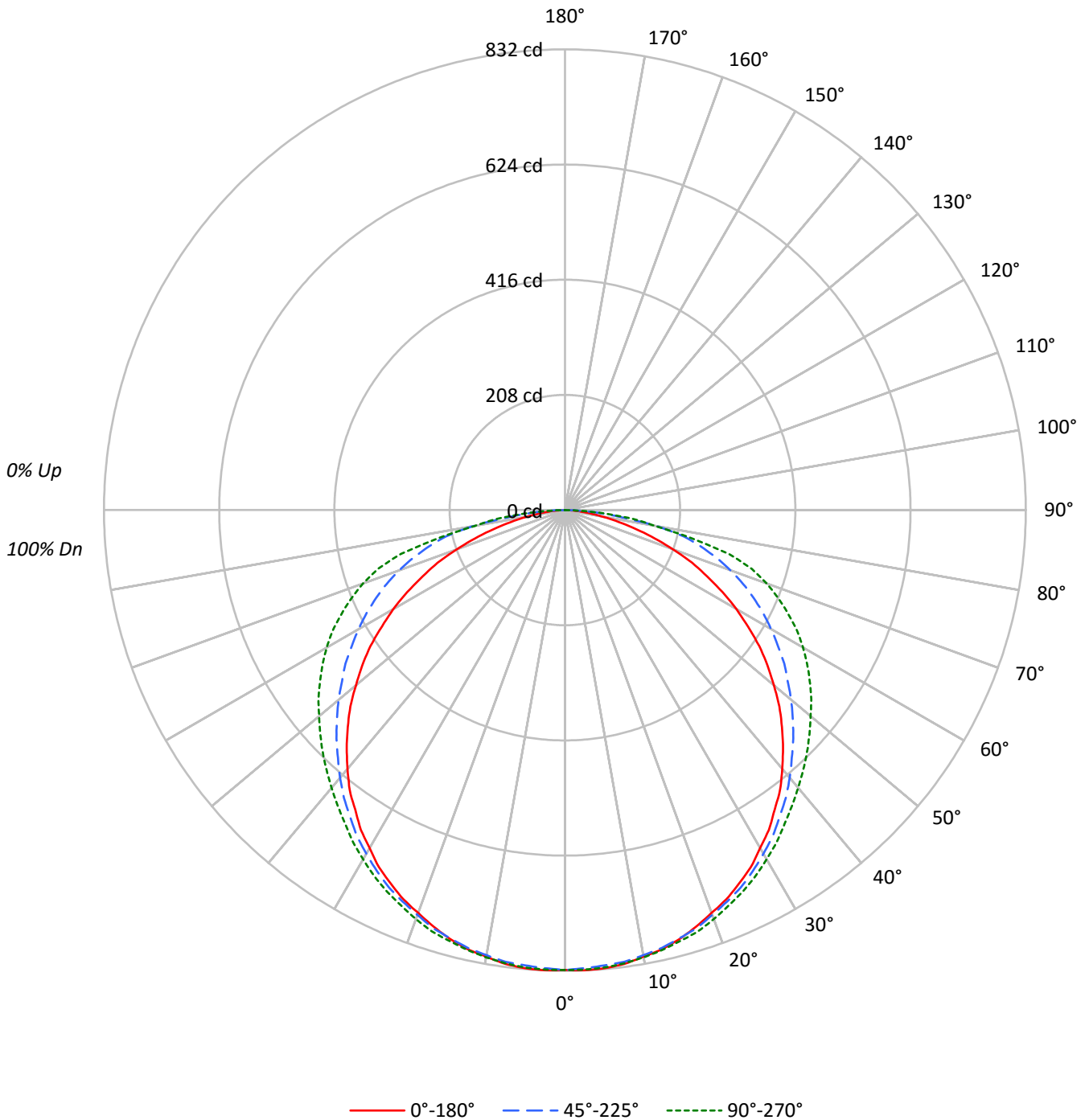
Lumens per Lamp: N/A  
Luminaire Lumens: 2641.0 lumens  
Efficiency: N/A  
Efficacy: 61.8 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 42.7  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	1117	1117	1117
5°	1122	1115	1120
10°	1119	1115	1120
15°	1117	1115	1122
20°	1109	1114	1125
25°	1105	1116	1128
30°	1095	1113	1132
35°	1084	1110	1136
40°	1072	1109	1150
45°	1054	1109	1177
50°	1031	1116	1212
55°	1005	1134	1266
60°	962	1156	1336
65°	901	1197	1418
70°	819	1252	1526
75°	695	1321	1593
80°	548	1330	1289
85°	404	1011	1133



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.8	3.0
10°-20°	226.7	8.6
20°-30°	346.7	13.1
30°-40°	423.9	16.0
40°-50°	451.8	17.1
50°-60°	431.9	16.4
60°-70°	365.9	13.9
70°-80°	245.9	9.3
80°-90°	69.4	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°	652.2	24.7
0°-40°	1076.1	40.7
0°-60°	1959.8	74.2
0°-90°	2641.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2641.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	830	830	830	830	830	
5°	830	829	825	829	829	79
15°	802	802	800	807	806	226
25°	744	747	752	758	760	343
35°	660	666	676	689	692	414
45°	554	563	583	608	618	427
55°	428	444	483	521	540	382
65°	283	312	376	426	445	281
75°	134	182	254	297	306	143
85°	26	54	66	71	73	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	830.5	830.5	830.5	830.5	830.5
2.5°	831.8	831.8	827.9	830.5	830.5
5°	830.5	829.2	825.3	829.2	829.2
7.5°	826.6	825.3	822.7	826.6	825.3
10°	818.7	818.7	816.1	820.0	820.0
12.5°	812.2	810.9	809.6	814.8	813.5
15°	801.7	801.7	800.4	806.9	805.6
17.5°	788.6	789.9	791.2	796.5	797.8
20°	774.2	776.8	778.1	786.0	786.0
22.5°	761.1	762.4	765.0	772.9	772.9
25°	744.1	746.7	751.9	758.5	759.8
27.5°	727.0	728.3	734.9	744.1	745.4
30°	704.8	708.7	716.6	727.0	728.3
32.5°	685.1	689.0	698.2	708.7	711.3
35°	660.2	665.5	675.9	689.0	691.7
37.5°	638.0	641.9	655.0	669.4	673.3
40°	610.4	618.3	631.4	648.4	655.0
42.5°	582.9	590.8	606.5	628.8	636.6
45°	554.1	563.3	582.9	607.8	618.3
47.5°	525.3	535.8	558.0	586.9	598.7
50°	492.5	505.6	533.2	565.9	579.0
52.5°	461.1	476.8	507.0	543.6	560.7
55°	428.4	444.1	483.4	521.4	539.7
57.5°	391.7	412.6	455.9	499.1	518.7
60°	357.6	377.3	429.7	476.8	496.5
62.5°	320.9	347.1	403.5	453.2	472.9
65°	283.0	311.8	376.0	425.7	445.4
67.5°	248.9	280.3	348.5	398.2	417.9
70°	208.3	247.6	318.3	368.1	387.8
72.5°	170.3	213.5	286.9	335.4	353.7
75°	133.6	182.1	254.1	297.4	306.5
77.5°	99.6	150.6	220.1	238.4	231.9
80°	70.7	120.5	171.6	162.4	166.4
82.5°	45.8	91.7	106.1	120.5	124.4
85°	26.2	53.7	65.5	70.7	73.4
87.5°	11.8	19.6	26.2	26.2	24.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)