

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: P311993

Luminaire Tested: **14FCZ2-20-UNV-L83050-RDP-CA08-W2A-U-4500K**

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: P311993  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 14FCZ2-20-UNV-L83050-RDP-CA08-W2A-U-4500K  
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.08" ACRYLIC SHEET  
Light Source: (168) 4500K 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**

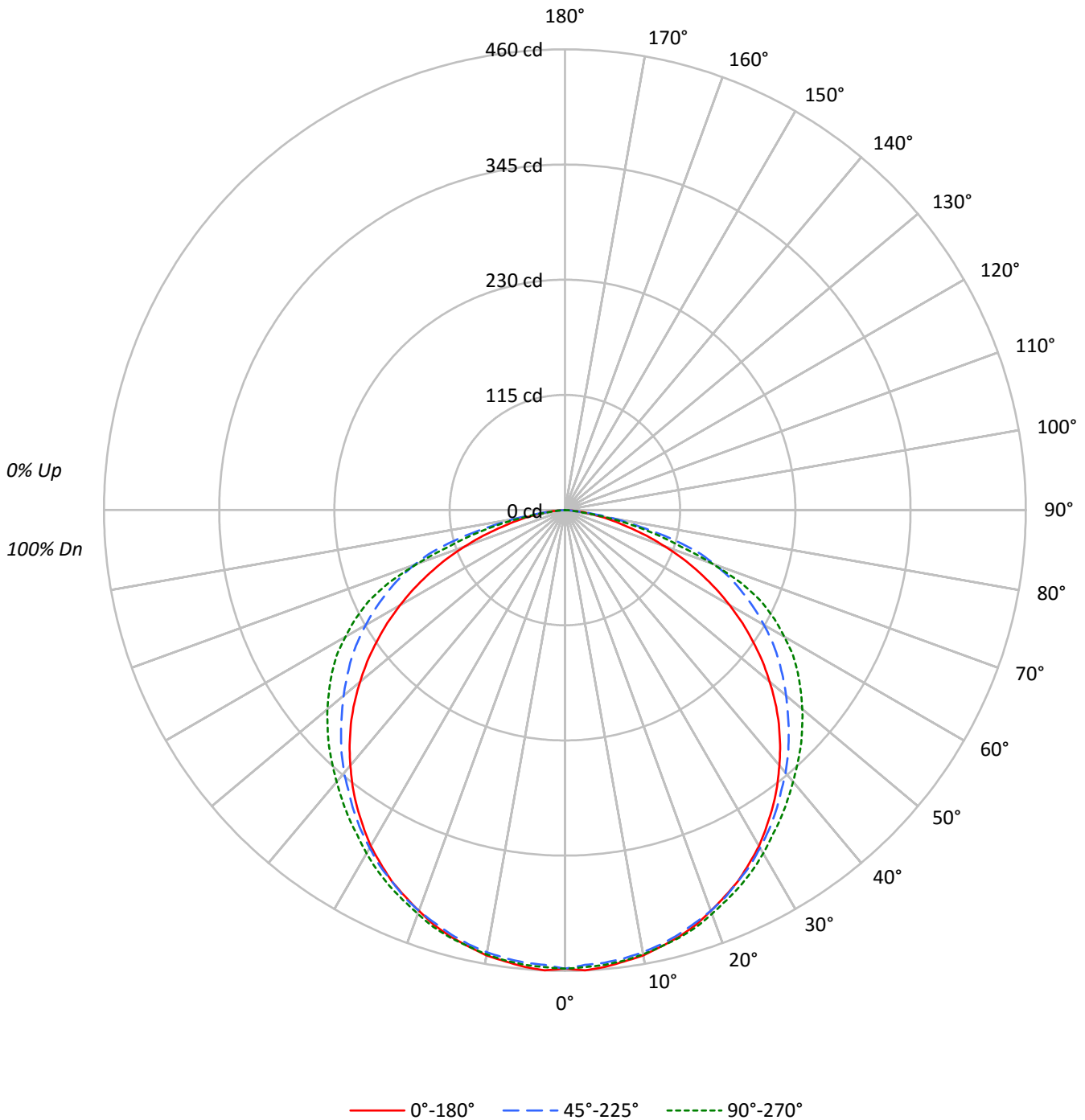
Lumens per Lamp: N/A  
Luminaire Lumens: 1367.0 lumens  
Efficiency: N/A  
Efficacy: 79.0 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.3  
Input Voltage (V): NR  
Input Current (A<sub>in</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	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

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

	0°	45°	90°
0°	1232	1232	1232
5°	1237	1225	1231
10°	1233	1225	1231
15°	1228	1222	1231
20°	1219	1219	1229
25°	1214	1214	1230
30°	1204	1210	1230
35°	1189	1206	1234
40°	1170	1203	1245
45°	1149	1202	1267
50°	1117	1207	1296
55°	1077	1222	1332
60°	1023	1235	1361
65°	944	1251	1379
70°	840	1260	1234
75°	677	1132	988
80°	530	793	645
85°	361	232	164



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.3	3.2
10°-20°	124.3	9.1
20°-30°	189.3	13.8
30°-40°	230.6	16.9
40°-50°	244.6	17.9
50°-60°	230.9	16.9
60°-70°	186.4	13.6
70°-80°	101.1	7.4
80°-90°	16.4	1.2
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°	357.0	26.1
0°-40°	587.6	43.0
0°-60°	1063.1	77.8
0°-90°	1367.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1367.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	458	458	458	458	458	
5°	458	457	454	457	456	43
15°	441	440	439	442	442	124
25°	409	408	409	413	414	188
35°	362	364	367	375	376	226
45°	302	306	316	328	333	233
55°	230	239	260	278	284	205
65°	148	166	196	212	217	147
75°	65	95	109	98	95	71
85°	12	13	8	6	5	15
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	457.8	457.8	457.8	457.8	457.8
2.5°	460.0	457.8	454.6	457.8	456.8
5°	457.8	456.8	453.6	456.8	455.7
7.5°	454.6	454.6	451.4	453.6	453.6
10°	451.4	450.4	448.2	451.4	450.4
12.5°	446.1	445.0	444.0	447.2	446.1
15°	440.8	439.7	438.6	441.8	441.8
17.5°	434.4	433.3	432.2	436.5	436.5
20°	425.8	425.8	425.8	430.1	429.0
22.5°	417.3	417.3	418.4	422.6	421.6
25°	408.8	407.7	408.8	413.0	414.1
27.5°	398.1	399.1	400.2	404.5	405.5
30°	387.4	388.5	389.5	394.9	395.9
32.5°	374.6	376.7	378.9	385.3	385.3
35°	361.8	363.9	367.1	374.6	375.7
37.5°	347.9	350.1	354.3	362.9	365.0
40°	333.0	336.2	342.6	351.1	354.3
42.5°	318.0	322.3	329.8	339.4	343.6
45°	302.0	306.3	315.9	327.6	333.0
47.5°	285.0	290.3	302.0	317.0	321.2
50°	266.8	274.3	288.2	304.2	309.5
52.5°	248.7	257.2	274.3	291.4	296.7
55°	229.5	239.1	260.4	277.5	283.9
57.5°	210.2	220.9	245.5	263.6	270.0
60°	190.0	202.8	229.5	247.6	252.9
62.5°	169.7	184.6	213.4	231.6	235.9
65°	148.3	166.5	196.4	212.4	216.6
67.5°	128.1	149.4	179.3	191.0	191.0
70°	106.7	130.2	160.1	163.3	156.9
72.5°	85.4	112.1	138.7	127.0	121.7
75°	65.1	95.0	108.9	98.2	95.0
77.5°	49.1	76.8	76.8	70.4	68.3
80°	34.2	58.7	51.2	44.8	41.6
82.5°	22.4	33.1	26.7	21.3	18.1
85°	11.7	12.8	7.5	6.4	5.3
87.5°	4.3	2.1	1.1	2.1	1.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)