

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: P311866

Luminaire Tested: **14FCZ2-25-UNV-L83050-HRP-CA08-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: P311866  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 14FCZ2-25-UNV-L83050-HRP-CA08-W2A-U-3500K  
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC SHEET  
Light Source: (168) 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**

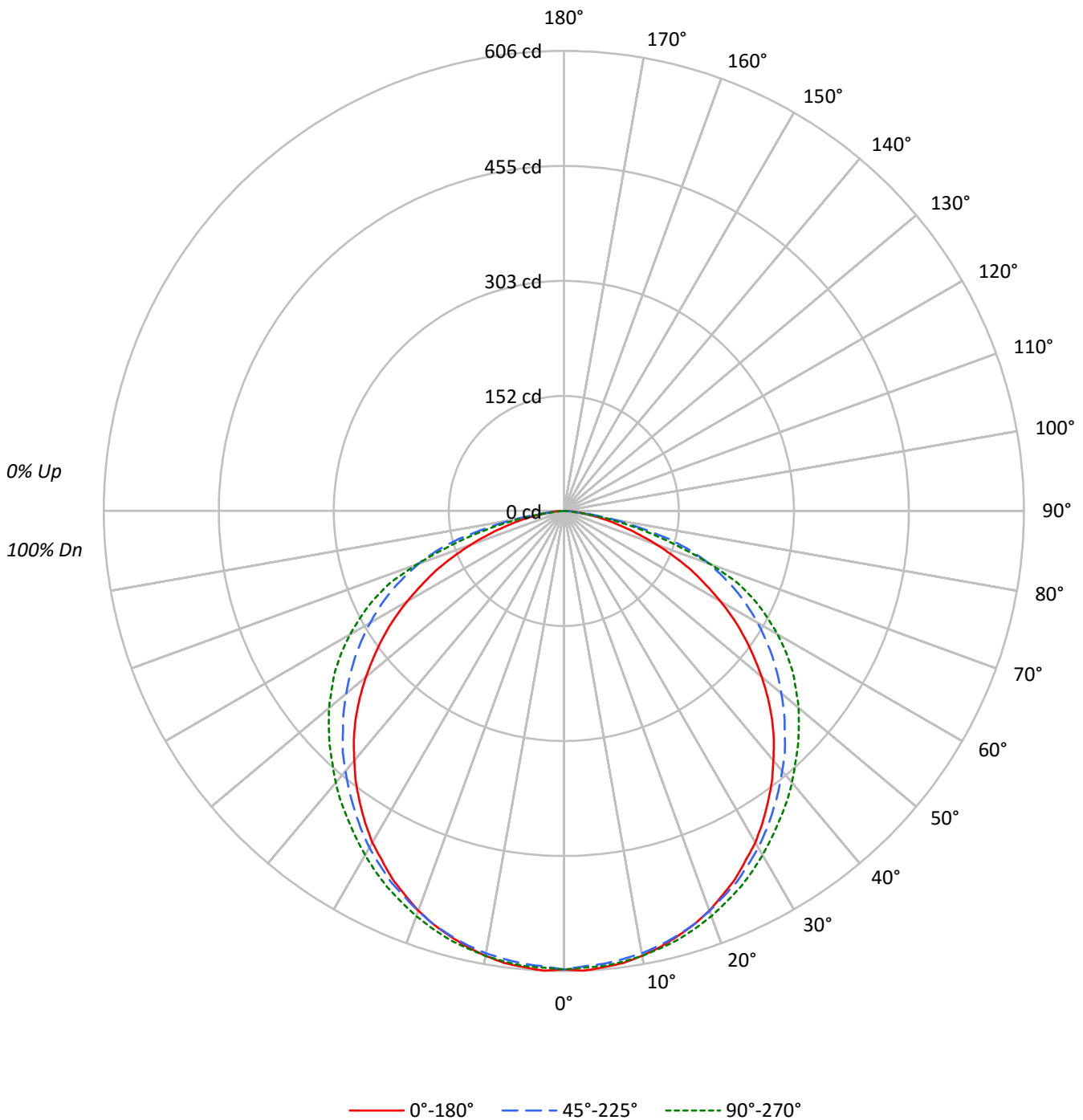
Lumens per Lamp: N/A  
Luminaire Lumens: 1778.0 lumens  
Efficiency: N/A  
Efficacy: 90.7 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
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



TEST NUMBER: P311866

CATALOG NUMBER: 14FCZ2-25-UNV-L83050-HRP-CA08-W2A-U-3500K

### Luminous Intensity Polar Plot





TEST NUMBER: P311866

CATALOG NUMBER: 14FCZ2-25-UNV-L83050-HRP-CA08-W2A-U-3500K

**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	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

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

	0°	45°	90°
0°	1625	1625	1625
5°	1630	1618	1625
10°	1626	1616	1626
15°	1615	1612	1628
20°	1604	1606	1627
25°	1587	1600	1627
30°	1567	1591	1626
35°	1539	1579	1629
40°	1508	1571	1642
45°	1477	1566	1660
50°	1425	1566	1690
55°	1364	1574	1726
60°	1282	1586	1748
65°	1182	1602	1759
70°	1029	1606	1618
75°	848	1494	1308
80°	666	1074	876
85°	519	414	207



TEST NUMBER: P311866

CATALOG NUMBER: 14FCZ2-25-UNV-L83050-HRP-CA08-W2A-U-3500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.2	3.2
10°-20°	164.0	9.2
20°-30°	249.1	14.0
30°-40°	301.8	17.0
40°-50°	318.1	17.9
50°-60°	296.9	16.7
60°-70°	237.3	13.3
70°-80°	130.6	7.3
80°-90°	23.0	1.3
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°	470.3	26.5
0°-40°	772.1	43.4
0°-60°	1387.1	78.0
0°-90°	1778.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1778.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	604	604	604	604	604	
5°	603	602	599	603	602	57
15°	580	580	579	584	584	164
25°	534	536	539	547	548	246
35°	468	473	481	493	496	293
45°	388	395	412	430	436	299
55°	291	305	336	359	368	260
65°	186	209	252	272	276	183
75°	82	117	144	129	126	88
85°	17	21	13	8	7	20
90°	0	0	0	0	0	



TEST NUMBER: P311866

CATALOG NUMBER: 14FCZ2-25-UNV-L83050-HRP-CA08-W2A-U-3500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	603.8	603.8	603.8	603.8	603.8
2.5°	606.1	604.4	600.5	603.8	602.1
5°	603.3	601.6	598.8	602.7	601.6
7.5°	600.5	598.2	595.4	599.9	598.8
10°	594.9	593.2	591.5	595.4	594.9
12.5°	588.2	587.6	585.9	590.4	589.8
15°	579.8	579.8	578.7	584.2	584.2
17.5°	570.8	570.3	570.8	577.0	576.4
20°	560.2	560.2	560.8	568.0	568.0
22.5°	547.3	547.9	549.6	558.5	558.0
25°	534.5	535.6	539.0	546.8	547.9
27.5°	518.8	521.6	525.5	535.0	536.2
30°	504.3	506.0	512.1	521.1	523.3
32.5°	487.0	490.3	497.0	507.1	509.9
35°	468.5	473.0	480.8	493.1	495.9
37.5°	450.1	454.0	464.6	477.5	482.5
40°	429.4	436.1	447.3	461.8	467.4
42.5°	409.3	416.0	431.1	446.2	451.2
45°	388.0	395.3	411.5	429.9	436.1
47.5°	364.5	372.9	393.6	413.2	419.9
50°	340.5	351.1	374.0	395.8	403.7
52.5°	315.3	328.7	355.0	377.9	385.2
55°	290.7	305.3	335.5	358.9	367.9
57.5°	265.6	281.2	315.3	342.2	347.2
60°	238.2	257.2	294.6	318.1	324.8
62.5°	211.3	233.1	273.4	295.8	301.3
65°	185.6	209.1	251.6	272.3	276.2
67.5°	157.7	185.6	227.5	246.6	247.7
70°	130.8	163.3	204.1	213.0	205.7
72.5°	104.5	139.2	176.7	169.4	163.3
75°	81.6	116.8	143.7	129.1	125.8
77.5°	60.4	95.6	102.9	95.0	88.9
80°	43.0	75.5	69.3	59.3	56.5
82.5°	29.6	47.5	38.0	29.6	25.7
85°	16.8	21.2	13.4	8.4	6.7
87.5°	7.3	5.0	2.8	2.2	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)