

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: P311867

Luminaire Tested: **14FCZ2-25-UNV-L83050-HRP-CA08-W2A-U-4000K**

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: P311867  
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-4000K  
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC SHEET  
Light Source: (168) 4000K 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**

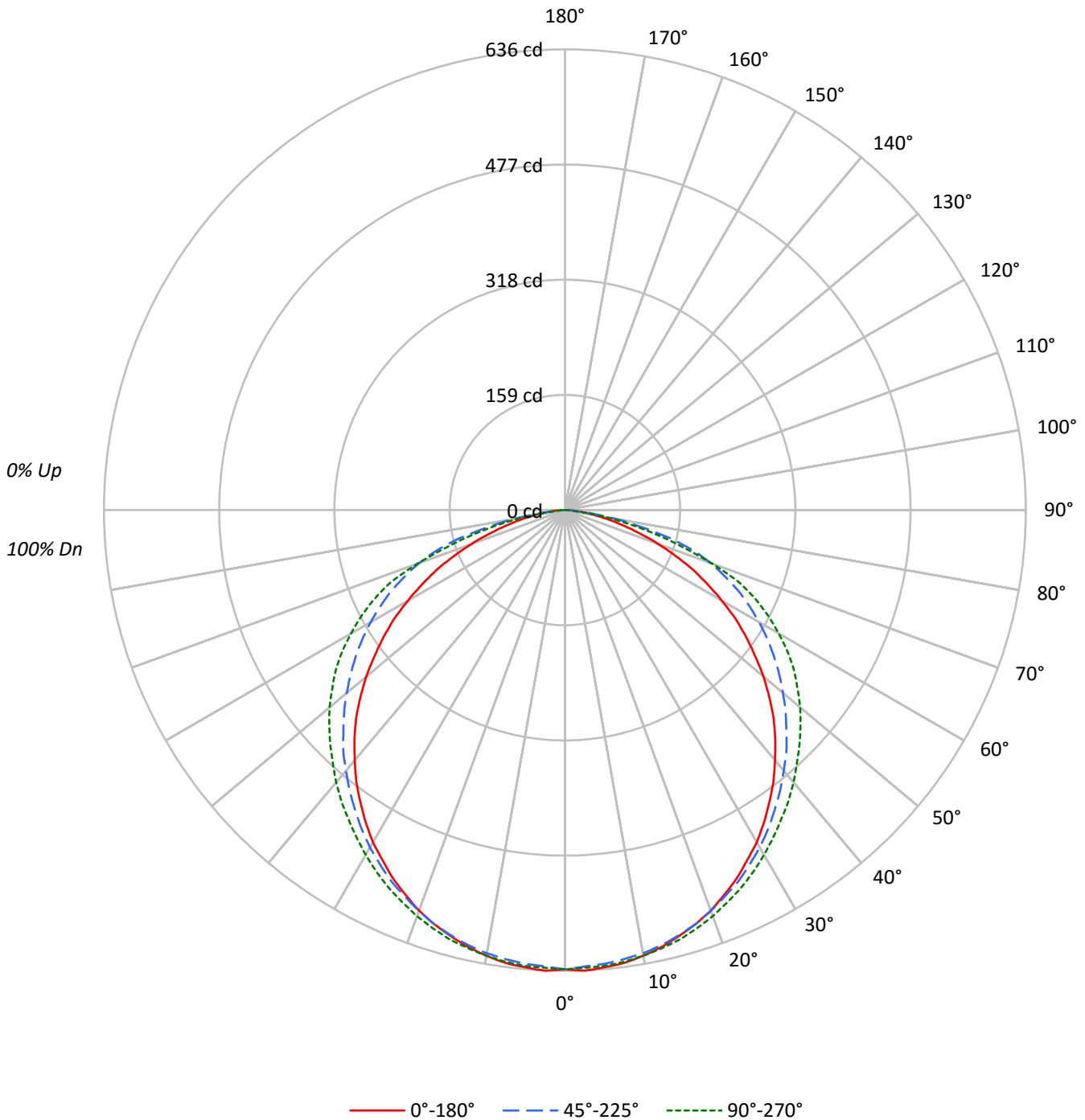
Lumens per Lamp: N/A  
Luminaire Lumens: 1867.0 lumens  
Efficiency: N/A  
Efficacy: 92.9 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 20.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
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: P311867

CATALOG NUMBER: 14FCZ2-25-UNV-L83050-HRP-CA08-W2A-U-4000K

### Luminous Intensity Polar Plot





TEST NUMBER: P311867

CATALOG NUMBER: 14FCZ2-25-UNV-L83050-HRP-CA08-W2A-U-4000K

**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°	1706	1706	1706
5°	1711	1699	1706
10°	1707	1697	1707
15°	1696	1693	1709
20°	1685	1686	1708
25°	1666	1680	1708
30°	1645	1671	1707
35°	1616	1659	1711
40°	1584	1650	1724
45°	1550	1644	1743
50°	1497	1644	1775
55°	1432	1652	1812
60°	1346	1665	1836
65°	1241	1682	1847
70°	1081	1686	1699
75°	891	1569	1373
80°	700	1128	919
85°	543	435	216



TEST NUMBER: P311867

CATALOG NUMBER: 14FCZ2-25-UNV-L83050-HRP-CA08-W2A-U-4000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.0	3.2
10°-20°	172.2	9.2
20°-30°	261.6	14.0
30°-40°	316.9	17.0
40°-50°	334.0	17.9
50°-60°	311.8	16.7
60°-70°	249.2	13.3
70°-80°	137.1	7.3
80°-90°	24.2	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°	493.8	26.5
0°-40°	810.8	43.4
0°-60°	1456.5	78.0
0°-90°	1867.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1867.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	634	634	634	634	634	
5°	634	632	629	633	632	60
15°	609	609	608	614	614	172
25°	561	562	566	574	575	258
35°	492	497	505	518	521	308
45°	407	415	432	452	458	313
55°	305	320	352	377	386	273
65°	195	220	264	286	290	192
75°	86	123	151	136	132	92
85°	18	22	14	9	7	21
90°	0	0	0	0	0	



TEST NUMBER: P311867

CATALOG NUMBER: 14FCZ2-25-UNV-L83050-HRP-CA08-W2A-U-4000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	634.0	634.0	634.0	634.0	634.0
2.5°	636.4	634.6	630.5	634.0	632.3
5°	633.5	631.7	628.8	632.9	631.7
7.5°	630.5	628.2	625.2	629.9	628.8
10°	624.6	622.9	621.1	625.2	624.6
12.5°	617.6	617.0	615.3	620.0	619.4
15°	608.8	608.8	607.6	613.5	613.5
17.5°	599.4	598.8	599.4	605.9	605.3
20°	588.3	588.3	588.8	596.5	596.5
22.5°	574.7	575.3	577.1	586.5	585.9
25°	561.2	562.4	565.9	574.2	575.3
27.5°	544.8	547.7	551.9	561.8	563.0
30°	529.5	531.3	537.8	547.2	549.5
32.5°	511.3	514.9	521.9	532.5	535.4
35°	492.0	496.7	504.9	517.8	520.7
37.5°	472.6	476.7	487.9	501.4	506.6
40°	450.9	457.9	469.7	484.9	490.8
42.5°	429.7	436.8	452.6	468.5	473.8
45°	407.4	415.1	432.1	451.5	457.9
47.5°	382.8	391.6	413.3	433.8	440.9
50°	357.5	368.7	392.8	415.7	423.9
52.5°	331.1	345.2	372.8	396.9	404.5
55°	305.3	320.5	352.2	376.9	386.3
57.5°	278.9	295.3	331.1	359.3	364.6
60°	250.1	270.1	309.4	334.0	341.1
62.5°	221.9	244.8	287.1	310.6	316.4
65°	194.9	219.6	264.2	285.9	290.0
67.5°	165.6	194.9	238.9	258.9	260.1
70°	137.4	171.4	214.3	223.7	216.0
72.5°	109.8	146.2	185.5	177.9	171.4
75°	85.7	122.7	150.9	135.6	132.1
77.5°	63.4	100.4	108.0	99.8	93.3
80°	45.2	79.3	72.8	62.2	59.3
82.5°	31.1	49.9	39.9	31.1	27.0
85°	17.6	22.3	14.1	8.8	7.0
87.5°	7.6	5.3	2.9	2.3	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)