

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: P312292

Luminaire Tested: **14FCZ2-20-UNV-L83050-S-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: P312292  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)  
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-S-CA08-W2A-U-4000K  
Description: 1'X4' TROFFER LED MODULE,SMOOTH 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

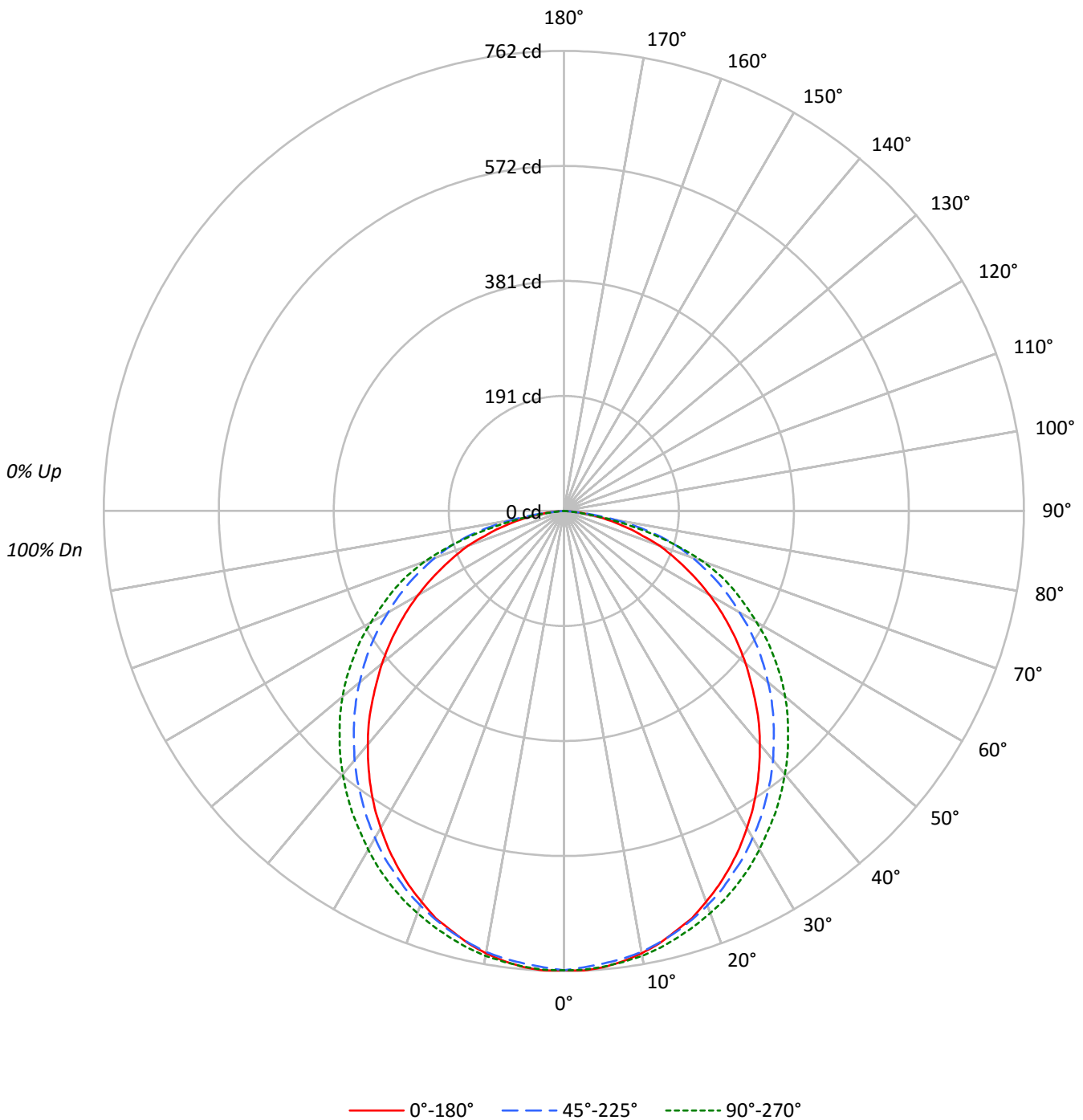
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2131.0 lumens  
Efficiency: N/A  
Efficacy: 126.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 16.9  
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	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	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	2047	2047	2047
5°	2049	2032	2046
10°	2032	2027	2044
15°	2004	2010	2037
20°	1973	1991	2030
25°	1932	1967	2023
30°	1885	1944	2013
35°	1833	1916	2006
40°	1774	1893	2001
45°	1709	1870	1998
50°	1645	1849	2004
55°	1576	1834	1998
60°	1501	1808	1984
65°	1413	1803	1985
70°	1330	1788	1928
75°	1153	1747	1648
80°	933	1409	1097
85°	621	488	327



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.8	3.4
10°-20°	204.4	9.6
20°-30°	306.6	14.4
30°-40°	365.8	17.2
40°-50°	378.1	17.7
50°-60°	345.2	16.2
60°-70°	271.7	12.7
70°-80°	158.1	7.4
80°-90°	29.1	1.4
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°	582.9	27.4
0°-40°	948.6	44.5
0°-60°	1672.0	78.5
0°-90°	2131.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2131.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	761	761	761	761	761	
5°	759	756	752	759	758	72
15°	720	721	722	731	731	203
25°	651	654	662	678	682	300
35°	558	565	583	605	611	349
45°	449	464	491	519	525	347
55°	336	354	391	420	426	300
65°	222	245	283	305	312	220
75°	111	137	168	165	158	118
85°	20	28	16	13	11	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	760.7	760.7	760.7	760.7	760.7
2.5°	761.8	759.7	756.5	761.8	760.7
5°	758.6	756.5	752.3	758.6	757.6
7.5°	752.3	750.2	748.1	754.4	753.3
10°	743.8	742.8	741.7	749.1	748.1
12.5°	733.3	733.3	732.2	740.7	740.7
15°	719.5	720.6	721.6	731.1	731.1
17.5°	706.8	705.8	709.0	719.5	720.6
20°	688.9	691.0	695.2	707.9	709.0
22.5°	670.9	673.0	680.4	693.1	696.3
25°	650.8	654.0	662.5	678.3	681.5
27.5°	629.7	633.9	645.6	662.5	665.6
30°	606.5	612.8	625.5	644.5	647.7
32.5°	583.2	589.6	605.4	624.4	628.7
35°	557.9	565.3	583.2	605.4	610.7
37.5°	531.5	541.0	562.1	584.3	590.6
40°	505.0	515.6	538.9	562.1	569.5
42.5°	478.6	489.2	514.6	541.0	548.4
45°	449.0	463.8	491.3	518.8	525.1
47.5°	420.5	436.4	467.0	494.5	502.9
50°	393.0	408.9	441.6	470.2	478.6
52.5°	364.5	381.4	416.3	445.9	453.3
55°	336.0	354.0	390.9	419.5	425.8
57.5°	307.5	326.5	364.5	392.0	399.4
60°	278.9	299.0	336.0	363.5	368.7
62.5°	250.4	271.5	309.6	333.9	339.2
65°	221.9	245.1	283.2	305.3	311.7
67.5°	194.4	217.7	254.6	275.8	281.0
70°	169.1	190.2	227.2	243.0	245.1
72.5°	137.4	163.8	199.7	208.1	202.9
75°	110.9	137.4	168.0	164.8	158.5
77.5°	84.5	110.9	131.0	120.4	112.0
80°	60.2	86.6	90.9	75.0	70.8
82.5°	39.1	60.2	50.7	39.1	31.7
85°	20.1	28.5	15.8	12.7	10.6
87.5°	6.3	4.2	2.1	2.1	1.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)