

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: P311898

Luminaire Tested: **14FCZ2-29-UNV-L83050-HRP-CA125-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: P311898  
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: 14FCZ2-29-UNV-L83050-HRP-CA125-W2A-U-4500K  
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" 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: 2245.0 lumens  
Efficiency: N/A  
Efficacy: 89.8 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

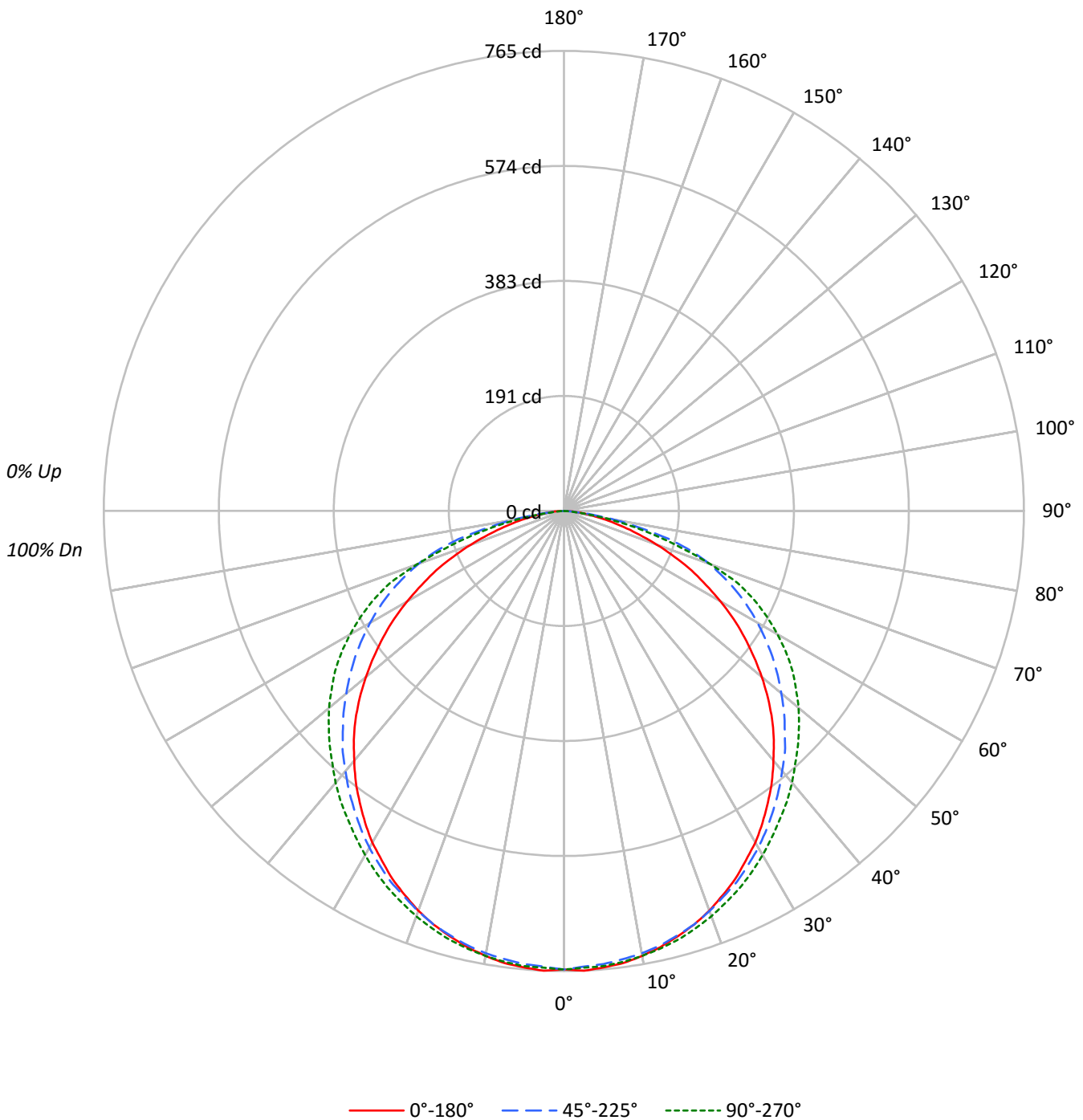
Input Watts (W): 25  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	2052	2052	2052
5°	2058	2042	2052
10°	2052	2041	2052
15°	2040	2035	2055
20°	2026	2028	2054
25°	2004	2021	2054
30°	1979	2009	2053
35°	1943	1994	2057
40°	1905	1984	2073
45°	1864	1977	2095
50°	1800	1977	2134
55°	1722	1987	2179
60°	1618	2002	2208
65°	1493	2023	2220
70°	1300	2028	2044
75°	1072	1886	1651
80°	843	1356	1105
85°	655	522	262



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.2	3.2
10°-20°	207.1	9.2
20°-30°	314.5	14.0
30°-40°	381.1	17.0
40°-50°	401.6	17.9
50°-60°	374.9	16.7
60°-70°	299.6	13.3
70°-80°	164.9	7.3
80°-90°	29.1	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°	593.8	26.5
0°-40°	974.9	43.4
0°-60°	1751.4	78.0
0°-90°	2245.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2245.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	762	762	762	762	762	
5°	762	760	756	761	760	72
15°	732	732	731	738	738	207
25°	675	676	680	690	692	311
35°	592	597	607	623	626	370
45°	490	499	520	543	551	377
55°	367	385	424	453	464	328
65°	234	264	318	344	349	231
75°	103	148	181	163	159	111
85°	21	27	17	11	8	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	762.4	762.4	762.4	762.4	762.4
2.5°	765.2	763.1	758.2	762.4	760.3
5°	761.7	759.6	756.1	761.0	759.6
7.5°	758.2	755.4	751.8	757.5	756.1
10°	751.1	749.0	746.9	751.8	751.1
12.5°	742.6	741.9	739.8	745.5	744.8
15°	732.1	732.1	730.6	737.7	737.7
17.5°	720.8	720.1	720.8	728.5	727.8
20°	707.4	707.4	708.1	717.2	717.2
22.5°	691.1	691.8	693.9	705.2	704.5
25°	674.9	676.3	680.5	690.4	691.8
27.5°	655.1	658.6	663.6	675.6	677.0
30°	636.8	638.9	646.6	657.9	660.8
32.5°	614.9	619.1	627.6	640.3	643.8
35°	591.6	597.2	607.1	622.6	626.2
37.5°	568.3	573.2	586.6	602.9	609.2
40°	542.2	550.6	564.8	583.1	590.2
42.5°	516.7	525.2	544.3	563.3	569.7
45°	489.9	499.1	519.6	542.9	550.6
47.5°	460.3	470.9	497.0	521.7	530.2
50°	429.9	443.3	472.3	499.8	509.7
52.5°	398.1	415.1	448.3	477.2	486.4
55°	367.1	385.4	423.6	453.2	464.5
57.5°	335.3	355.1	398.1	432.0	438.4
60°	300.7	324.7	372.0	401.7	410.2
62.5°	266.8	294.4	345.2	373.4	380.5
65°	234.4	264.0	317.7	343.8	348.7
67.5°	199.1	234.4	287.3	311.3	312.7
70°	165.2	206.1	257.7	269.0	259.8
72.5°	132.0	175.8	223.1	213.9	206.1
75°	103.1	147.5	181.4	163.1	158.8
77.5°	76.2	120.7	129.9	120.0	112.2
80°	54.4	95.3	87.5	74.8	71.3
82.5°	37.4	60.0	48.0	37.4	32.5
85°	21.2	26.8	16.9	10.6	8.5
87.5°	9.2	6.4	3.5	2.8	2.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)