

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: P311893

Luminaire Tested: **14FCZ2-29-UNV-L83050-HRP-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: P311893  
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-CA08-W2A-U-4500K  
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 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: 2253.0 lumens  
Efficiency: N/A  
Efficacy: 90.1 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

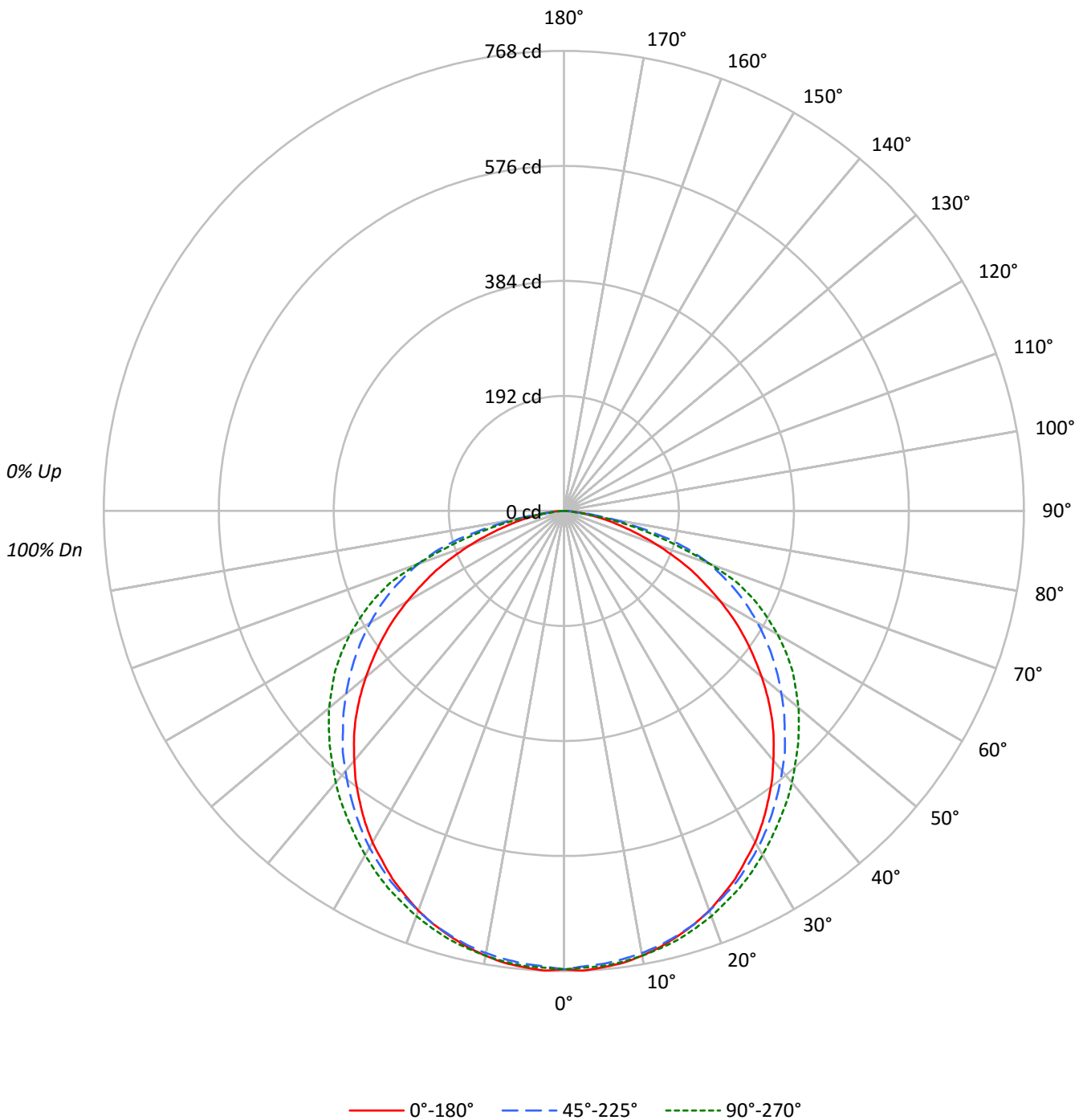
Input Watts (W): 25  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2059	2059	2059
5°	2065	2050	2059
10°	2060	2048	2060
15°	2047	2043	2062
20°	2033	2035	2061
25°	2011	2028	2061
30°	1986	2016	2060
35°	1950	2002	2064
40°	1911	1991	2081
45°	1871	1984	2103
50°	1806	1984	2141
55°	1728	1994	2187
60°	1624	2010	2215
65°	1498	2030	2229
70°	1304	2035	2051
75°	1075	1893	1657
80°	846	1361	1110
85°	658	525	262



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.4	3.2
10°-20°	207.9	9.2
20°-30°	315.6	14.0
30°-40°	382.5	17.0
40°-50°	403.0	17.9
50°-60°	376.3	16.7
60°-70°	300.7	13.3
70°-80°	165.5	7.3
80°-90°	29.2	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°	595.9	26.5
0°-40°	978.4	43.4
0°-60°	1757.7	78.0
0°-90°	2253.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2253.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	765	765	765	765	765	
5°	764	762	759	764	762	73
15°	735	735	733	740	740	207
25°	677	679	683	693	694	312
35°	594	599	609	625	628	371
45°	492	501	521	545	553	378
55°	368	387	425	455	466	329
65°	235	265	319	345	350	232
75°	103	148	182	164	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°	765.1	765.1	765.1	765.1	765.1
2.5°	768.0	765.8	760.9	765.1	763.0
5°	764.4	762.3	758.8	763.7	762.3
7.5°	760.9	758.0	754.5	760.2	758.8
10°	753.8	751.7	749.5	754.5	753.8
12.5°	745.3	744.6	742.5	748.1	747.4
15°	734.7	734.7	733.2	740.3	740.3
17.5°	723.3	722.6	723.3	731.1	730.4
20°	709.9	709.9	710.6	719.8	719.8
22.5°	693.6	694.3	696.4	707.7	707.0
25°	677.3	678.7	682.9	692.9	694.3
27.5°	657.4	661.0	665.9	678.0	679.4
30°	639.0	641.2	648.9	660.3	663.1
32.5°	617.1	621.3	629.8	642.6	646.1
35°	593.7	599.4	609.3	624.9	628.4
37.5°	570.3	575.3	588.7	605.0	611.4
40°	544.1	552.6	566.8	585.2	592.3
42.5°	518.6	527.1	546.2	565.3	571.7
45°	491.7	500.9	521.4	544.8	552.6
47.5°	461.9	472.5	498.8	523.5	532.0
50°	431.4	444.9	474.0	501.6	511.5
52.5°	399.6	416.6	449.9	478.9	488.1
55°	368.4	386.8	425.1	454.8	466.2
57.5°	336.5	356.4	399.6	433.6	439.9
60°	301.8	325.9	373.4	403.1	411.6
62.5°	267.8	295.4	346.4	374.8	381.9
65°	235.2	265.0	318.8	345.0	350.0
67.5°	199.8	235.2	288.3	312.4	313.8
70°	165.8	206.9	258.6	269.9	260.7
72.5°	132.5	176.4	223.9	214.7	206.9
75°	103.4	148.1	182.1	163.7	159.4
77.5°	76.5	121.1	130.4	120.4	112.6
80°	54.6	95.6	87.8	75.1	71.6
82.5°	37.5	60.2	48.2	37.5	32.6
85°	21.3	26.9	17.0	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)