

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: P311907

Luminaire Tested: **14FCZ2-29-UNV-L83050-HRP-CP187-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: P311907  
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-CP187-W2A-U-4000K  
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"  
POLYCARB 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: 2088.0 lumens  
Efficiency: N/A  
Efficacy: 85.9 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

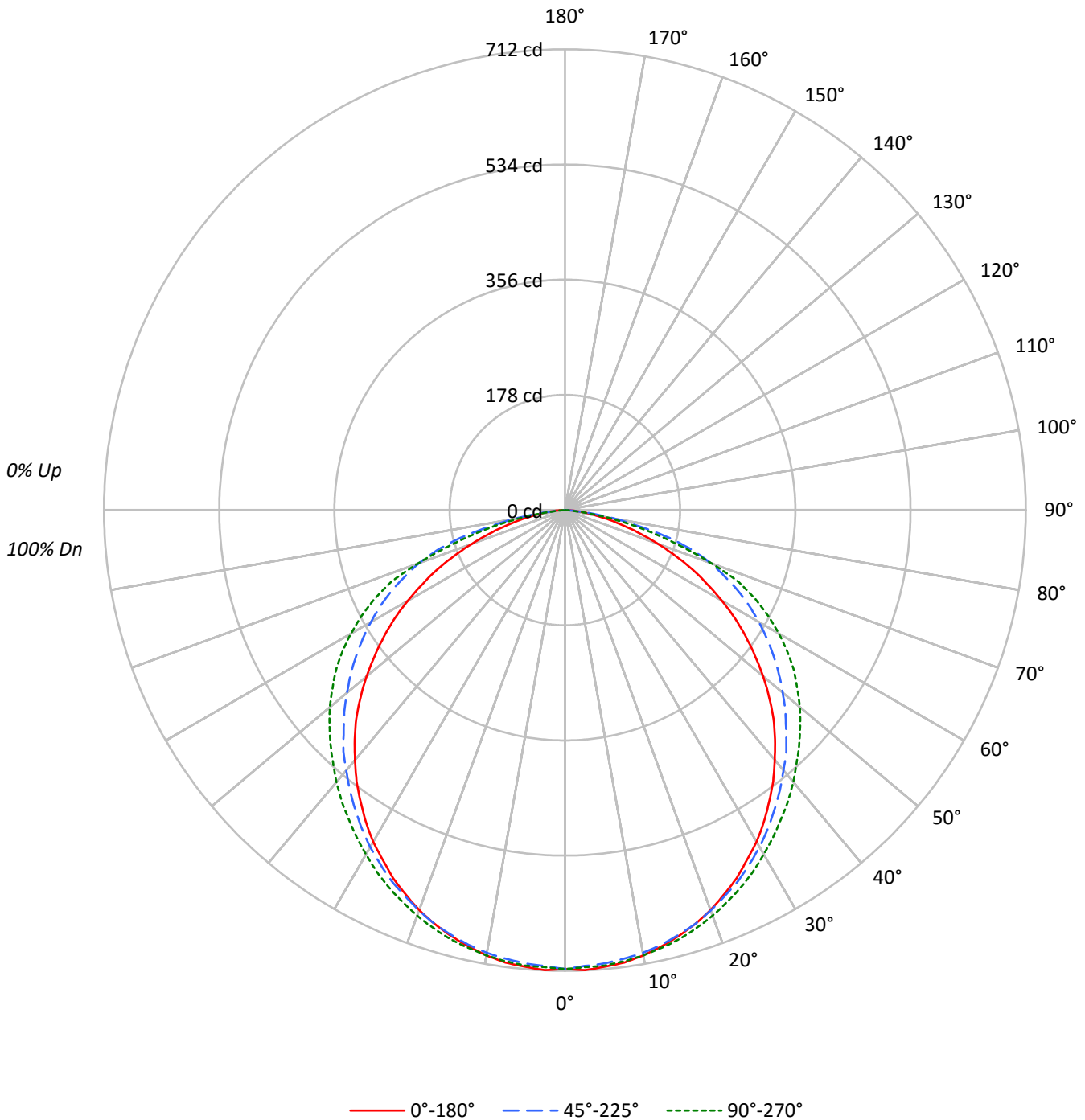
Input Watts (W): 24.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1908	1908	1908
5°	1914	1900	1908
10°	1909	1898	1909
15°	1897	1893	1911
20°	1884	1886	1910
25°	1864	1879	1910
30°	1840	1869	1909
35°	1807	1855	1913
40°	1771	1845	1928
45°	1734	1839	1949
50°	1674	1839	1984
55°	1602	1848	2027
60°	1505	1862	2053
65°	1388	1882	2065
70°	1209	1885	1901
75°	997	1754	1536
80°	784	1261	1027
85°	608	488	244



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.1	3.2
10°-20°	192.6	9.2
20°-30°	292.5	14.0
30°-40°	354.4	17.0
40°-50°	373.5	17.9
50°-60°	348.7	16.7
60°-70°	278.7	13.3
70°-80°	153.3	7.3
80°-90°	27.1	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°	552.3	26.5
0°-40°	906.7	43.4
0°-60°	1628.9	78.0
0°-90°	2088.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2088.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	709	709	709	709	709	
5°	708	706	703	708	706	67
15°	681	681	680	686	686	192
25°	628	629	633	642	643	289
35°	550	556	565	579	582	344
45°	456	464	483	505	512	351
55°	341	358	394	422	432	305
65°	218	246	296	320	324	215
75°	96	137	169	152	148	103
85°	20	25	16	10	8	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	709.1	709.1	709.1	709.1	709.1
2.5°	711.7	709.8	705.2	709.1	707.1
5°	708.4	706.5	703.2	707.8	706.5
7.5°	705.2	702.5	699.2	704.5	703.2
10°	698.6	696.6	694.7	699.2	698.6
12.5°	690.7	690.1	688.1	693.3	692.7
15°	680.9	680.9	679.5	686.1	686.1
17.5°	670.4	669.7	670.4	677.6	676.9
20°	657.9	657.9	658.5	667.1	667.1
22.5°	642.8	643.4	645.4	655.9	655.3
25°	627.7	629.0	632.9	642.1	643.4
27.5°	609.3	612.6	617.2	628.3	629.7
30°	592.2	594.2	601.4	611.9	614.5
32.5°	571.9	575.8	583.7	595.5	598.8
35°	550.2	555.5	564.7	579.1	582.4
37.5°	528.5	533.1	545.6	560.7	566.6
40°	504.2	512.1	525.3	542.3	548.9
42.5°	480.6	488.5	506.2	523.9	529.9
45°	455.7	464.2	483.2	504.9	512.1
47.5°	428.1	437.9	462.2	485.2	493.1
50°	399.9	412.3	439.2	464.9	474.0
52.5°	370.3	386.1	416.9	443.8	452.4
55°	341.4	358.5	393.9	421.5	432.0
57.5°	311.9	330.3	370.3	401.8	407.7
60°	279.7	302.0	346.0	373.6	381.5
62.5°	248.2	273.8	321.1	347.3	353.9
65°	218.0	245.6	295.5	319.7	324.3
67.5°	185.2	218.0	267.2	289.5	290.9
70°	153.6	191.7	239.6	250.2	241.6
72.5°	122.8	163.5	207.5	198.9	191.7
75°	95.9	137.2	168.7	151.7	147.7
77.5°	70.9	112.3	120.8	111.6	104.4
80°	50.6	88.6	81.4	69.6	66.3
82.5°	34.8	55.8	44.6	34.8	30.2
85°	19.7	24.9	15.8	9.8	7.9
87.5°	8.5	5.9	3.3	2.6	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)