

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: P312088

Luminaire Tested: **14FCZ2-35-UNV-L83050-RDP-CP250-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: P312088  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 14FCZ2-35-UNV-L83050-RDP-CP250-W2A-U-4500K  
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.250" POLYCARB 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: 2127.0 lumens  
Efficiency: N/A  
Efficacy: 68.8 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

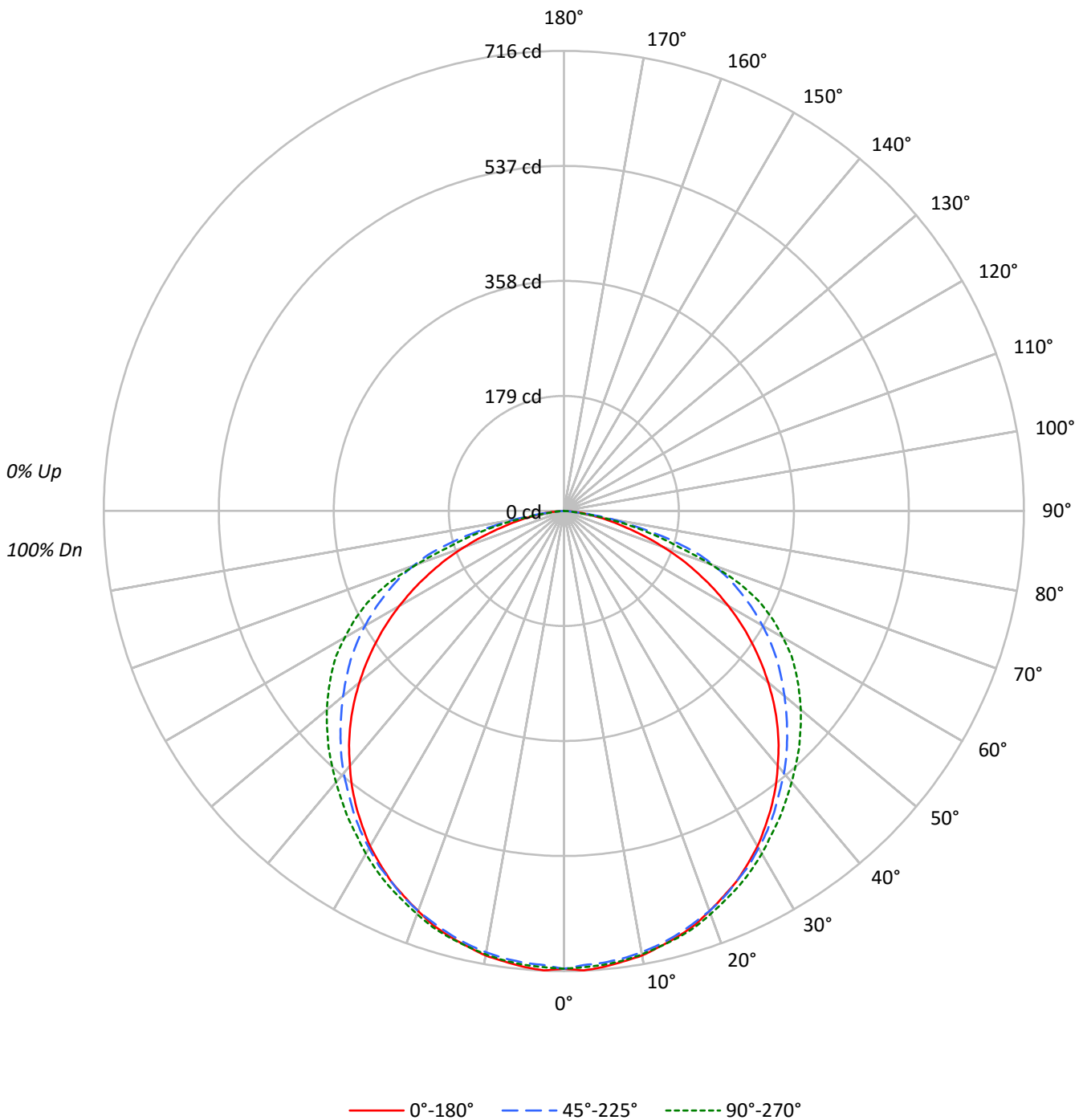
Input Watts (W): 30.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

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

	0°	45°	90°
0°	1917	1917	1917
5°	1924	1906	1915
10°	1919	1906	1915
15°	1911	1901	1915
20°	1897	1897	1912
25°	1888	1888	1913
30°	1873	1883	1914
35°	1849	1876	1920
40°	1820	1872	1937
45°	1788	1870	1972
50°	1738	1877	2016
55°	1675	1901	2072
60°	1591	1921	2118
65°	1470	1945	2146
70°	1307	1960	1921
75°	1053	1761	1537
80°	823	1235	1004
85°	565	358	256



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.4	3.2
10°-20°	193.5	9.1
20°-30°	294.6	13.8
30°-40°	358.8	16.9
40°-50°	380.6	17.9
50°-60°	359.2	16.9
60°-70°	290.1	13.6
70°-80°	157.4	7.4
80°-90°	25.5	1.2
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°	555.5	26.1
0°-40°	914.2	43.0
0°-60°	1654.1	77.8
0°-90°	2127.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2127.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	712	712	712	712	712	
5°	712	711	706	711	709	68
15°	686	684	682	688	688	193
25°	636	634	636	643	644	293
35°	563	566	571	583	584	352
45°	470	477	492	510	518	362
55°	357	372	405	432	442	319
65°	231	259	306	330	337	229
75°	101	148	169	153	148	111
85°	18	20	12	10	8	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	712.4	712.4	712.4	712.4	712.4
2.5°	715.7	712.4	707.4	712.4	710.7
5°	712.4	710.7	705.7	710.7	709.1
7.5°	707.4	707.4	702.4	705.7	705.7
10°	702.4	700.8	697.4	702.4	700.8
12.5°	694.1	692.5	690.8	695.8	694.1
15°	685.8	684.2	682.5	687.5	687.5
17.5°	675.9	674.2	672.5	679.2	679.2
20°	662.6	662.6	662.6	669.2	667.6
22.5°	649.3	649.3	650.9	657.6	655.9
25°	636.0	634.3	636.0	642.6	644.3
27.5°	619.4	621.1	622.7	629.4	631.0
30°	602.8	604.4	606.1	614.4	616.1
32.5°	582.9	586.2	589.5	599.5	599.5
35°	562.9	566.3	571.2	582.9	584.5
37.5°	541.3	544.7	551.3	564.6	567.9
40°	518.1	523.1	533.0	546.3	551.3
42.5°	494.9	501.5	513.1	528.1	534.7
45°	469.9	476.6	491.5	509.8	518.1
47.5°	443.4	451.7	469.9	493.2	499.8
50°	415.1	426.8	448.4	473.3	481.6
52.5°	386.9	400.2	426.8	453.3	461.6
55°	357.0	372.0	405.2	431.7	441.7
57.5°	327.1	343.7	381.9	410.2	420.1
60°	295.6	315.5	357.0	385.3	393.6
62.5°	264.0	287.3	332.1	360.3	367.0
65°	230.8	259.0	305.5	330.5	337.1
67.5°	199.3	232.5	279.0	297.2	297.2
70°	166.1	202.6	249.1	254.1	244.1
72.5°	132.8	174.4	215.9	197.6	189.3
75°	101.3	147.8	169.4	152.8	147.8
77.5°	76.4	119.6	119.6	109.6	106.3
80°	53.1	91.3	79.7	69.7	64.8
82.5°	34.9	51.5	41.5	33.2	28.2
85°	18.3	19.9	11.6	10.0	8.3
87.5°	6.6	3.3	1.7	3.3	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)