

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: P312188

Luminaire Tested: **14FCZ2-25-UNV-L83050-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: P312188  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 14FCZ2-25-UNV-L83050-CP250-W2A-U-4500K  
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 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: 2306.0 lumens  
Efficiency: N/A  
Efficacy: 111.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

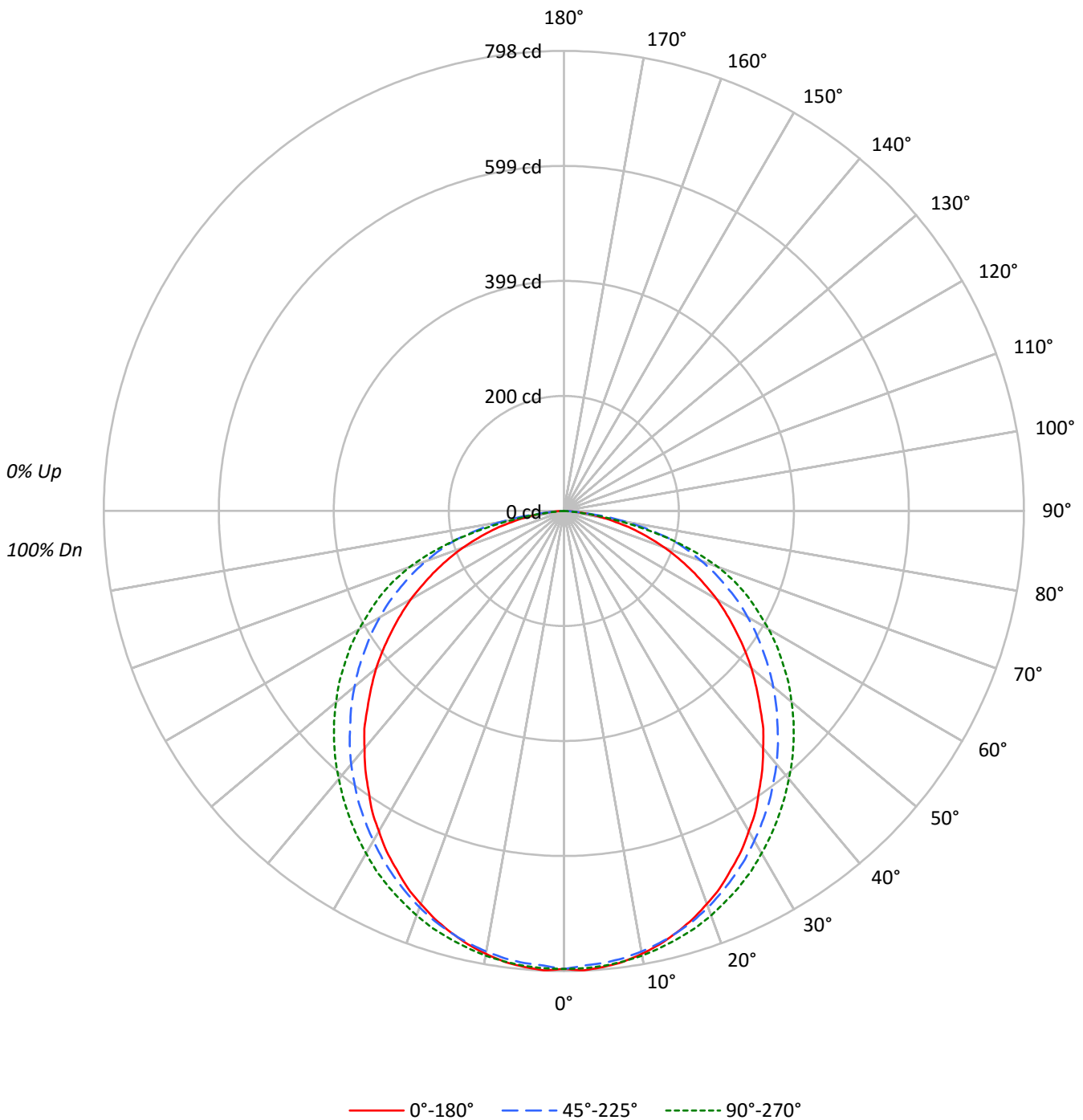
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	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	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	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	39	31	26	37	30	26	37	30	25	36	30	25	24

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

	0°	45°	90°
0°	2138	2138	2138
5°	2145	2126	2139
10°	2131	2120	2140
15°	2109	2110	2139
20°	2078	2095	2138
25°	2038	2075	2136
30°	1994	2053	2131
35°	1941	2035	2130
40°	1889	2016	2133
45°	1832	1994	2145
50°	1778	1985	2159
55°	1711	1978	2178
60°	1650	1982	2208
65°	1565	1987	2243
70°	1469	2002	2242
75°	1331	2021	2026
80°	1091	1745	1443
85°	809	824	333



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.2	3.3
10°-20°	214.7	9.3
20°-30°	323.5	14.0
30°-40°	388.2	16.8
40°-50°	404.6	17.5
50°-60°	374.6	16.2
60°-70°	302.6	13.1
70°-80°	184.5	8.0
80°-90°	38.1	1.7
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°	613.4	26.6
0°-40°	1001.6	43.4
0°-60°	1780.8	77.2
0°-90°	2306.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2306.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	794	794	794	794	794	
5°	794	792	787	793	792	75
15°	757	757	757	768	768	213
25°	686	691	699	716	719	316
35°	591	600	620	642	648	370
45°	481	496	524	553	564	372
55°	365	384	422	454	464	327
65°	246	270	312	344	352	243
75°	128	156	194	197	195	134
85°	26	39	27	15	11	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	794.4	794.4	794.4	794.4	794.4
2.5°	797.5	794.9	789.3	794.9	793.9
5°	793.9	791.9	787.2	792.9	791.9
7.5°	788.8	786.7	782.6	789.3	788.3
10°	780.0	779.0	775.9	783.6	783.1
12.5°	769.7	769.2	767.7	776.4	775.9
15°	756.9	757.4	757.4	767.7	767.7
17.5°	742.5	743.5	745.6	756.9	758.4
20°	725.5	727.6	731.7	744.5	746.6
22.5°	708.0	709.6	715.8	731.2	733.2
25°	686.4	690.6	698.8	716.3	719.4
27.5°	665.9	669.5	680.8	698.8	703.9
30°	641.7	647.4	660.7	680.3	685.9
32.5°	618.6	624.7	640.2	662.8	667.9
35°	590.8	600.1	619.6	642.2	648.4
37.5°	565.6	574.4	596.5	621.1	628.3
40°	537.8	548.6	573.8	600.1	607.3
42.5°	512.1	522.4	549.7	576.4	586.2
45°	481.3	495.7	524.0	553.3	563.6
47.5°	453.0	467.4	499.8	531.2	540.4
50°	424.7	440.1	474.1	506.5	515.7
52.5°	395.4	411.9	448.4	480.8	491.6
55°	364.6	383.6	421.6	454.5	464.3
57.5°	335.3	354.8	395.4	428.8	438.6
60°	306.5	326.5	368.2	400.0	410.3
62.5°	274.6	298.2	341.4	372.8	380.5
65°	245.8	270.0	312.1	343.5	352.2
67.5°	215.4	241.7	283.8	312.6	320.9
70°	186.7	213.9	254.5	281.3	284.9
72.5°	155.8	183.6	224.7	241.7	241.7
75°	128.0	156.3	194.4	197.4	194.9
77.5°	97.7	129.1	153.7	147.6	141.4
80°	70.4	101.3	112.6	101.3	93.1
82.5°	47.3	73.5	67.9	54.0	47.8
85°	26.2	39.1	26.7	14.9	10.8
87.5°	9.8	8.7	2.6	2.6	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)