

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: P312413

Luminaire Tested: **14FCZ2-39-UNV-L83050-S-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: P312413  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 14FCZ2-39-UNV-L83050-S-CP250-W2A-U-4500K  
Description: 1'X4' TROFFER LED MODULE,SMOOTH 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**

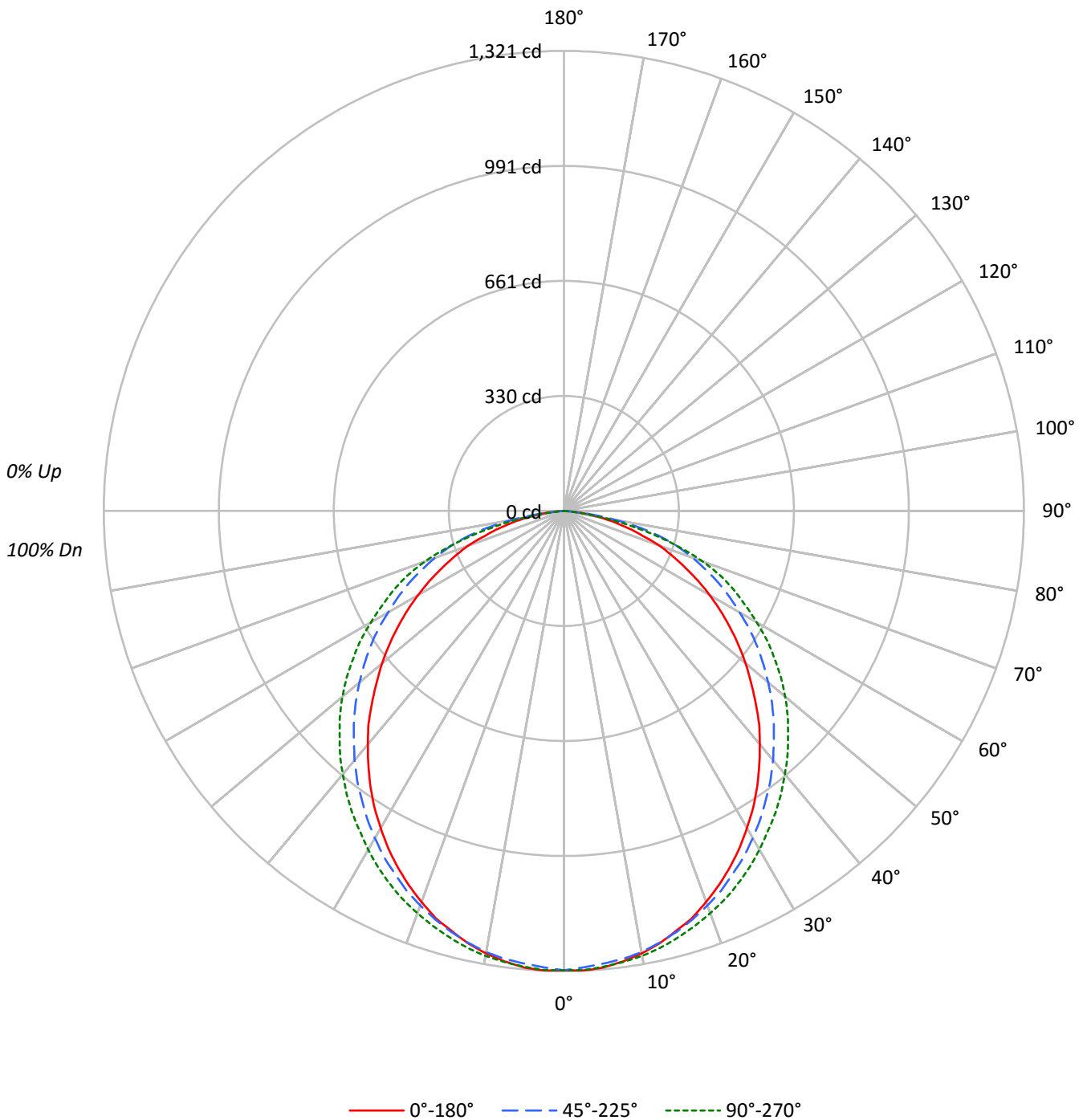
Lumens per Lamp: N/A  
Luminaire Lumens: 3695.0 lumens  
Efficiency: N/A  
Efficacy: 105.9 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 34.9  
Input Voltage (V): NR  
Input Current (A<sub>in</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	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	3550	3550	3550
5°	3553	3524	3548
10°	3524	3514	3544
15°	3476	3486	3532
20°	3421	3452	3520
25°	3351	3411	3509
30°	3268	3370	3489
35°	3178	3322	3479
40°	3076	3282	3469
45°	2963	3242	3465
50°	2853	3206	3474
55°	2733	3180	3464
60°	2603	3136	3441
65°	2450	3126	3441
70°	2306	3099	3344
75°	2000	3029	2857
80°	1618	2442	1901
85°	1074	849	565



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.6	3.4
10°-20°	354.4	9.6
20°-30°	531.7	14.4
30°-40°	634.2	17.2
40°-50°	655.7	17.7
50°-60°	598.6	16.2
60°-70°	471.1	12.7
70°-80°	274.2	7.4
80°-90°	50.5	1.4
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°	1010.7	27.4
0°-40°	1644.9	44.5
0°-60°	2899.2	78.5
0°-90°	3695.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3695.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1319	1319	1319	1319	1319	
5°	1315	1312	1304	1315	1314	125
15°	1248	1249	1251	1268	1268	352
25°	1128	1134	1149	1176	1182	520
35°	967	980	1011	1050	1059	605
45°	779	804	852	900	910	601
55°	583	614	678	727	738	521
65°	385	425	491	530	540	382
75°	192	238	291	286	275	204
85°	35	50	28	22	18	45
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1319.1	1319.1	1319.1	1319.1	1319.1
2.5°	1320.9	1317.2	1311.7	1320.9	1319.1
5°	1315.4	1311.7	1304.4	1315.4	1313.6
7.5°	1304.4	1300.7	1297.1	1308.1	1306.2
10°	1289.7	1287.9	1286.1	1298.9	1297.1
12.5°	1271.4	1271.4	1269.6	1284.2	1284.2
15°	1247.6	1249.4	1251.3	1267.8	1267.8
17.5°	1225.6	1223.8	1229.3	1247.6	1249.4
20°	1194.5	1198.1	1205.5	1227.5	1229.3
22.5°	1163.3	1167.0	1179.8	1201.8	1207.3
25°	1128.5	1134.0	1148.7	1176.2	1181.7
27.5°	1091.9	1099.2	1119.4	1148.7	1154.2
30°	1051.6	1062.6	1084.6	1117.5	1123.0
32.5°	1011.3	1022.3	1049.7	1082.7	1090.1
35°	967.3	980.1	1011.3	1049.7	1058.9
37.5°	921.5	938.0	974.6	1013.1	1024.1
40°	875.7	894.0	934.3	974.6	987.5
42.5°	829.9	848.2	892.2	938.0	950.8
45°	778.6	804.3	851.9	899.5	910.5
47.5°	729.1	756.6	809.8	857.4	872.0
50°	681.5	709.0	765.8	815.2	829.9
52.5°	632.0	661.4	721.8	773.1	785.9
55°	582.6	613.7	677.8	727.3	738.3
57.5°	533.1	566.1	632.0	679.7	692.5
60°	483.7	518.5	582.6	630.2	639.4
62.5°	434.2	470.8	536.8	578.9	588.1
65°	384.7	425.0	491.0	529.5	540.4
67.5°	337.1	377.4	441.5	478.2	487.3
70°	293.1	329.8	393.9	421.4	425.0
72.5°	238.2	284.0	346.3	360.9	351.7
75°	192.4	238.2	291.3	285.8	274.8
77.5°	146.6	192.4	227.2	208.9	194.2
80°	104.4	150.2	157.6	130.1	122.7
82.5°	67.8	104.4	87.9	67.8	55.0
85°	34.8	49.5	27.5	22.0	18.3
87.5°	11.0	7.3	3.7	3.7	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)