

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: P312390

Luminaire Tested: **14FCZ2-39-UNV-L83050-S-CA08-W2A-U-3000K**

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: P312390  
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-CA08-W2A-U-3000K  
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.08" ACRYLIC SHEET  
Light Source: (168) 3000K 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

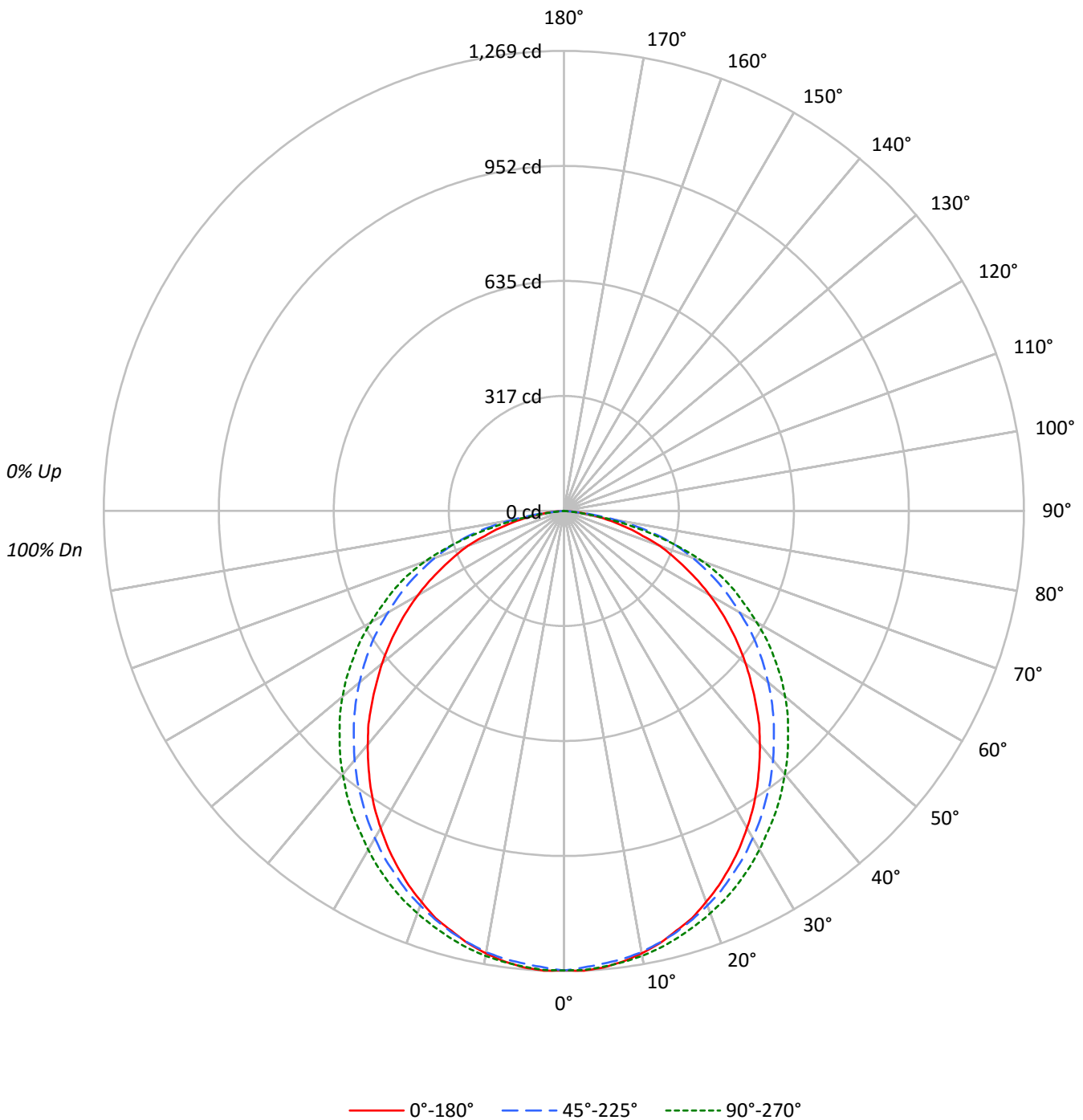
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3550.0 lumens  
Efficiency: N/A  
Efficacy: 106.9 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): 33.2  
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°	3410	3410	3410
5°	3414	3385	3409
10°	3386	3376	3405
15°	3339	3349	3393
20°	3286	3317	3382
25°	3219	3277	3371
30°	3139	3238	3353
35°	3053	3192	3342
40°	2955	3153	3333
45°	2847	3115	3329
50°	2741	3080	3338
55°	2626	3055	3328
60°	2501	3012	3306
65°	2353	3004	3306
70°	2216	2977	3212
75°	1921	2910	2745
80°	1554	2346	1827
85°	1031	815	543



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.7	3.4
10°-20°	340.5	9.6
20°-30°	510.8	14.4
30°-40°	609.3	17.2
40°-50°	629.9	17.7
50°-60°	575.1	16.2
60°-70°	452.6	12.7
70°-80°	263.5	7.4
80°-90°	48.5	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°	971.0	27.4
0°-40°	1580.3	44.5
0°-60°	2785.4	78.5
0°-90°	3550.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3550.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1267	1267	1267	1267	1267	
5°	1264	1260	1253	1264	1262	120
15°	1199	1200	1202	1218	1218	338
25°	1084	1090	1104	1130	1135	499
35°	929	942	972	1009	1017	581
45°	748	773	818	864	875	578
55°	560	590	651	699	709	501
65°	370	408	472	509	519	367
75°	185	229	280	275	264	196
85°	33	48	26	21	18	43
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1267.3	1267.3	1267.3	1267.3	1267.3
2.5°	1269.1	1265.5	1260.3	1269.1	1267.3
5°	1263.8	1260.3	1253.2	1263.8	1262.0
7.5°	1253.2	1249.7	1246.2	1256.7	1255.0
10°	1239.1	1237.4	1235.6	1247.9	1246.2
12.5°	1221.5	1221.5	1219.8	1233.8	1233.8
15°	1198.6	1200.4	1202.2	1218.0	1218.0
17.5°	1177.5	1175.8	1181.0	1198.6	1200.4
20°	1147.6	1151.1	1158.2	1179.3	1181.0
22.5°	1117.7	1121.2	1133.5	1154.6	1159.9
25°	1084.2	1089.5	1103.6	1130.0	1135.3
27.5°	1049.0	1056.1	1075.4	1103.6	1108.9
30°	1010.3	1020.9	1042.0	1073.7	1079.0
32.5°	971.6	982.2	1008.6	1040.2	1047.3
35°	929.3	941.7	971.6	1008.6	1017.4
37.5°	885.3	901.2	936.4	973.3	983.9
40°	841.3	858.9	897.7	936.4	948.7
42.5°	797.3	814.9	857.2	901.2	913.5
45°	748.1	772.7	818.5	864.2	874.8
47.5°	700.5	726.9	778.0	823.7	837.8
50°	654.8	681.2	735.7	783.3	797.3
52.5°	607.2	635.4	693.5	742.8	755.1
55°	559.7	589.6	651.2	698.8	709.3
57.5°	512.2	543.9	607.2	653.0	665.3
60°	464.7	498.1	559.7	605.5	614.3
62.5°	417.1	452.4	515.7	556.2	565.0
65°	369.6	408.3	471.7	508.7	519.2
67.5°	323.9	362.6	424.2	459.4	468.2
70°	281.6	316.8	378.4	404.8	408.3
72.5°	228.8	272.8	332.7	346.7	337.9
75°	184.8	228.8	279.9	274.6	264.0
77.5°	140.8	184.8	218.3	200.7	186.6
80°	100.3	144.3	151.4	125.0	117.9
82.5°	65.1	100.3	84.5	65.1	52.8
85°	33.4	47.5	26.4	21.1	17.6
87.5°	10.6	7.0	3.5	3.5	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)