

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: P312411

Luminaire Tested: **14FCZ2-39-UNV-L83050-S-CP250-W2A-U-3500K**

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.

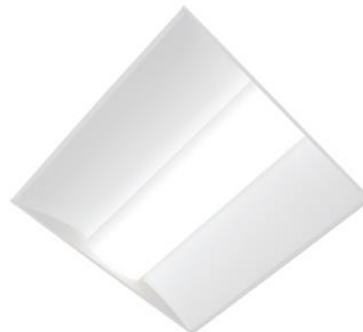
**Test Information**

Test Method: LM-79-08  
Report Number: P312411  
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-3500K  
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.250" POLYCARB SHEET  
Light Source: (168) 3500K 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**

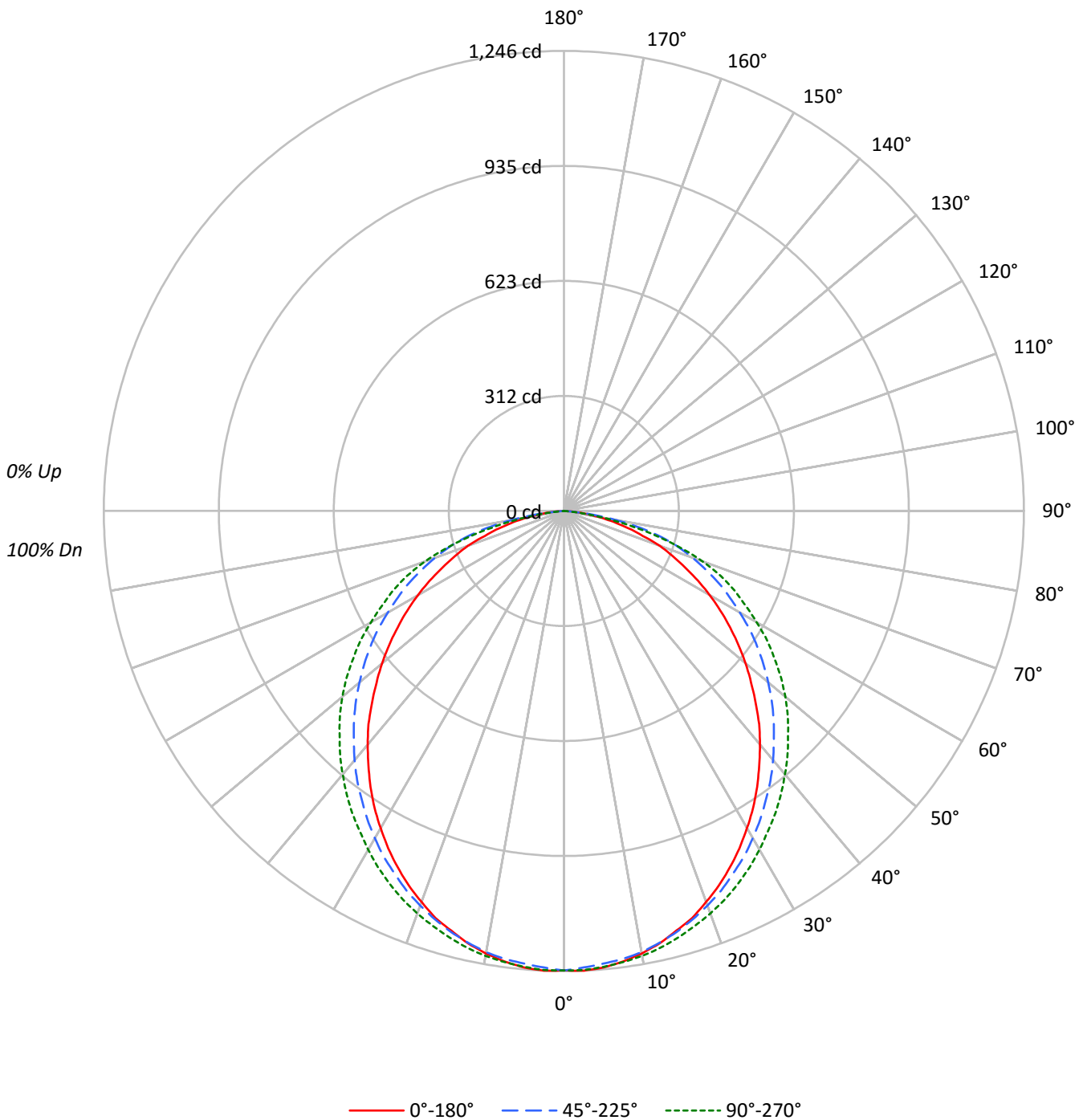
Lumens per Lamp: N/A  
Luminaire Lumens: 3486.0 lumens  
Efficiency: N/A  
Efficacy: 104.7 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 33.3  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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°	3349	3349	3349
5°	3352	3324	3348
10°	3325	3315	3344
15°	3279	3289	3332
20°	3227	3257	3321
25°	3161	3218	3310
30°	3083	3179	3292
35°	2998	3134	3282
40°	2902	3097	3273
45°	2796	3059	3269
50°	2692	3025	3278
55°	2578	3000	3268
60°	2456	2958	3246
65°	2311	2949	3247
70°	2175	2924	3155
75°	1887	2857	2696
80°	1526	2303	1795
85°	1013	800	534



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	117.5	3.4
10°-20°	334.4	9.6
20°-30°	501.6	14.4
30°-40°	598.4	17.2
40°-50°	618.6	17.7
50°-60°	564.8	16.2
60°-70°	444.4	12.7
70°-80°	258.7	7.4
80°-90°	47.7	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°	953.5	27.4
0°-40°	1551.8	44.5
0°-60°	2735.2	78.5
0°-90°	3486.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3486.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1244	1244	1244	1244	1244	
5°	1241	1238	1231	1241	1239	118
15°	1177	1179	1180	1196	1196	332
25°	1065	1070	1084	1110	1115	490
35°	913	925	954	990	999	570
45°	735	759	804	849	859	567
55°	550	579	640	686	696	492
65°	363	401	463	500	510	360
75°	182	225	275	270	259	193
85°	33	47	26	21	17	43
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1244.4	1244.4	1244.4	1244.4	1244.4
2.5°	1246.2	1242.7	1237.5	1246.2	1244.4
5°	1241.0	1237.5	1230.6	1241.0	1239.3
7.5°	1230.6	1227.2	1223.7	1234.1	1232.3
10°	1216.8	1215.1	1213.3	1225.4	1223.7
12.5°	1199.5	1199.5	1197.8	1211.6	1211.6
15°	1177.0	1178.8	1180.5	1196.0	1196.0
17.5°	1156.3	1154.6	1159.8	1177.0	1178.8
20°	1126.9	1130.4	1137.3	1158.0	1159.8
22.5°	1097.5	1101.0	1113.1	1133.8	1139.0
25°	1064.7	1069.9	1083.7	1109.6	1114.8
27.5°	1030.1	1037.0	1056.0	1083.7	1088.9
30°	992.1	1002.5	1023.2	1054.3	1059.5
32.5°	954.1	964.4	990.4	1021.5	1028.4
35°	912.6	924.7	954.1	990.4	999.0
37.5°	869.4	884.9	919.5	955.8	966.2
40°	826.2	843.5	881.5	919.5	931.6
42.5°	783.0	800.2	841.7	884.9	897.0
45°	734.6	758.8	803.7	848.6	859.0
47.5°	687.9	713.8	764.0	808.9	822.7
50°	643.0	668.9	722.5	769.1	783.0
52.5°	596.3	624.0	681.0	729.4	741.5
55°	549.6	579.0	639.5	686.2	696.5
57.5°	503.0	534.1	596.3	641.2	653.3
60°	456.3	489.1	549.6	594.6	603.2
62.5°	409.6	444.2	506.4	546.2	554.8
65°	363.0	401.0	463.2	499.5	509.9
67.5°	318.0	356.0	416.5	451.1	459.8
70°	276.5	311.1	371.6	397.5	401.0
72.5°	224.7	267.9	326.7	340.5	331.9
75°	181.5	224.7	274.8	269.6	259.3
77.5°	138.3	181.5	214.3	197.0	183.2
80°	98.5	141.7	148.6	122.7	115.8
82.5°	64.0	98.5	83.0	64.0	51.9
85°	32.8	46.7	25.9	20.7	17.3
87.5°	10.4	6.9	3.5	3.5	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)