

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: P312343

Luminaire Tested: **14FCZ2-29-UNV-L83050-S-CA08-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: P312343  
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: 14FCZ2-29-UNV-L83050-S-CA08-W2A-U-4500K  
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.08" ACRYLIC 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**

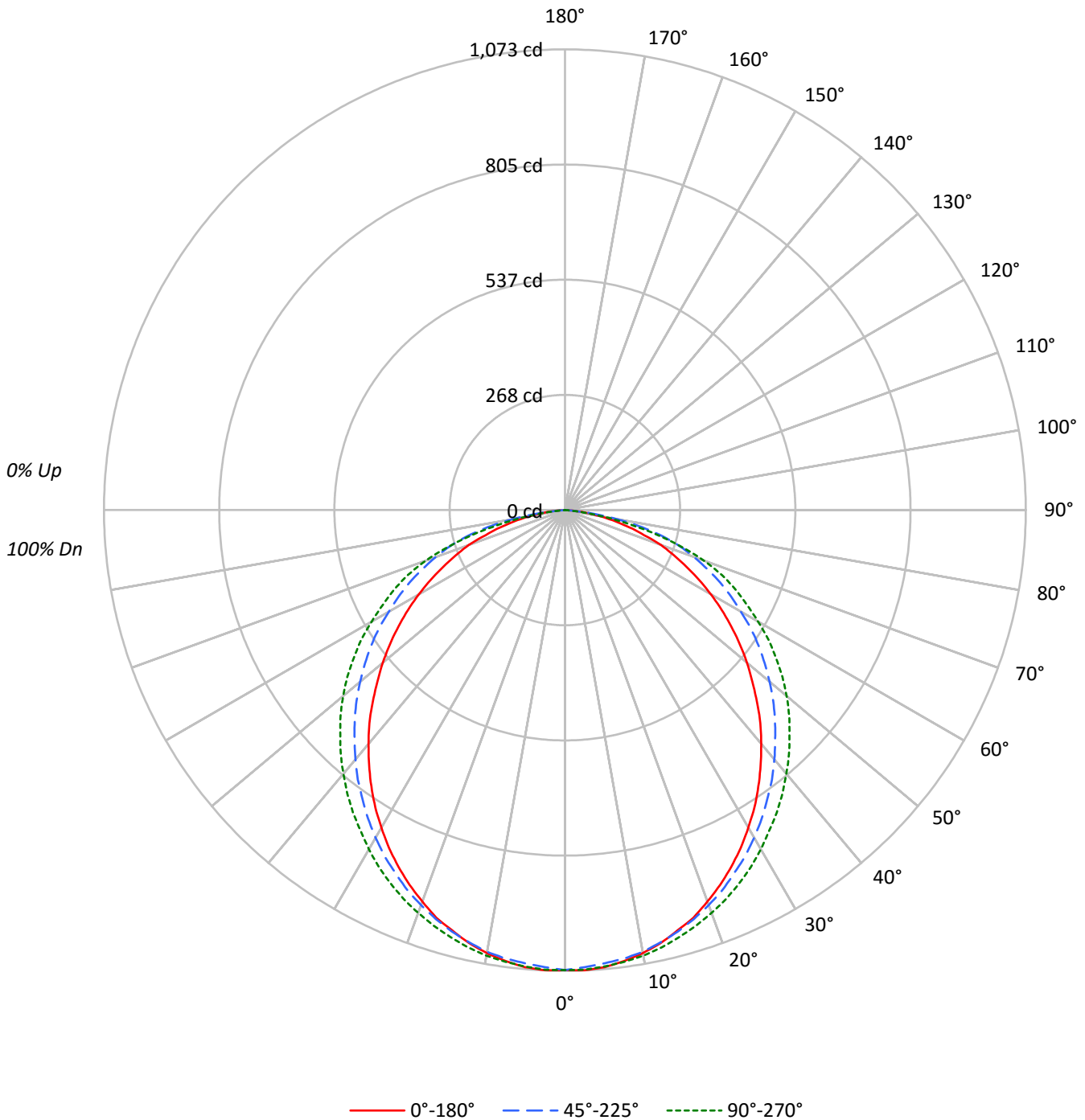
Lumens per Lamp: N/A  
Luminaire Lumens: 3001.0 lumens  
Efficiency: N/A  
Efficacy: 120.0 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 25  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2883	2883	2883
5°	2886	2862	2882
10°	2862	2854	2879
15°	2823	2831	2868
20°	2778	2804	2859
25°	2722	2770	2850
30°	2654	2737	2834
35°	2581	2698	2825
40°	2498	2666	2817
45°	2407	2633	2814
50°	2317	2604	2822
55°	2220	2583	2813
60°	2114	2547	2795
65°	1990	2539	2795
70°	1873	2517	2716
75°	1624	2460	2321
80°	1314	1984	1545
85°	874	689	460



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.2	3.4
10°-20°	287.9	9.6
20°-30°	431.8	14.4
30°-40°	515.1	17.2
40°-50°	532.5	17.7
50°-60°	486.2	16.2
60°-70°	382.6	12.7
70°-80°	222.7	7.4
80°-90°	41.0	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°	820.8	27.4
0°-40°	1335.9	44.5
0°-60°	2354.6	78.5
0°-90°	3001.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3001.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1071	1071	1071	1071	1071	
5°	1068	1065	1059	1068	1067	101
15°	1013	1015	1016	1030	1030	286
25°	917	921	933	955	960	422
35°	786	796	821	853	860	491
45°	632	653	692	731	740	488
55°	473	498	550	591	600	423
65°	312	345	399	430	439	310
75°	156	193	237	232	223	166
85°	28	40	22	18	15	37
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1071.3	1071.3	1071.3	1071.3	1071.3
2.5°	1072.8	1069.8	1065.4	1072.8	1071.3
5°	1068.3	1065.4	1059.4	1068.3	1066.8
7.5°	1059.4	1056.4	1053.5	1062.4	1060.9
10°	1047.5	1046.0	1044.5	1054.9	1053.5
12.5°	1032.6	1032.6	1031.1	1043.0	1043.0
15°	1013.3	1014.8	1016.3	1029.6	1029.6
17.5°	995.4	993.9	998.4	1013.3	1014.8
20°	970.1	973.1	979.1	996.9	998.4
22.5°	944.8	947.8	958.2	976.1	980.5
25°	916.6	921.0	932.9	955.2	959.7
27.5°	886.8	892.8	909.1	932.9	937.4
30°	854.1	863.0	880.9	907.6	912.1
32.5°	821.3	830.3	852.6	879.4	885.3
35°	785.6	796.0	821.3	852.6	860.0
37.5°	748.4	761.8	791.6	822.8	831.8
40°	711.2	726.1	758.8	791.6	802.0
42.5°	674.0	688.9	724.6	761.8	772.2
45°	632.4	653.2	691.9	730.6	739.5
47.5°	592.2	614.5	657.7	696.3	708.3
50°	553.5	575.8	622.0	662.1	674.0
52.5°	513.3	537.1	586.2	627.9	638.3
55°	473.2	498.5	550.5	590.7	599.6
57.5°	433.0	459.8	513.3	552.0	562.4
60°	392.8	421.1	473.2	511.8	519.3
62.5°	352.6	382.4	436.0	470.2	477.6
65°	312.5	345.2	398.8	430.0	438.9
67.5°	273.8	306.5	358.6	388.3	395.8
70°	238.1	267.8	319.9	342.2	345.2
72.5°	193.4	230.6	281.2	293.1	285.7
75°	156.2	193.4	236.6	232.1	223.2
77.5°	119.0	156.2	184.5	169.6	157.7
80°	84.8	122.0	128.0	105.6	99.7
82.5°	55.1	84.8	71.4	55.1	44.6
85°	28.3	40.2	22.3	17.9	14.9
87.5°	8.9	6.0	3.0	3.0	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)