

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: P312346

Luminaire Tested: **14FCZ2-29-UNV-L83050-S-CA125-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: P312346  
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-CA125-W2A-U-3500K  
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS,0.125" ACRYLIC 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**

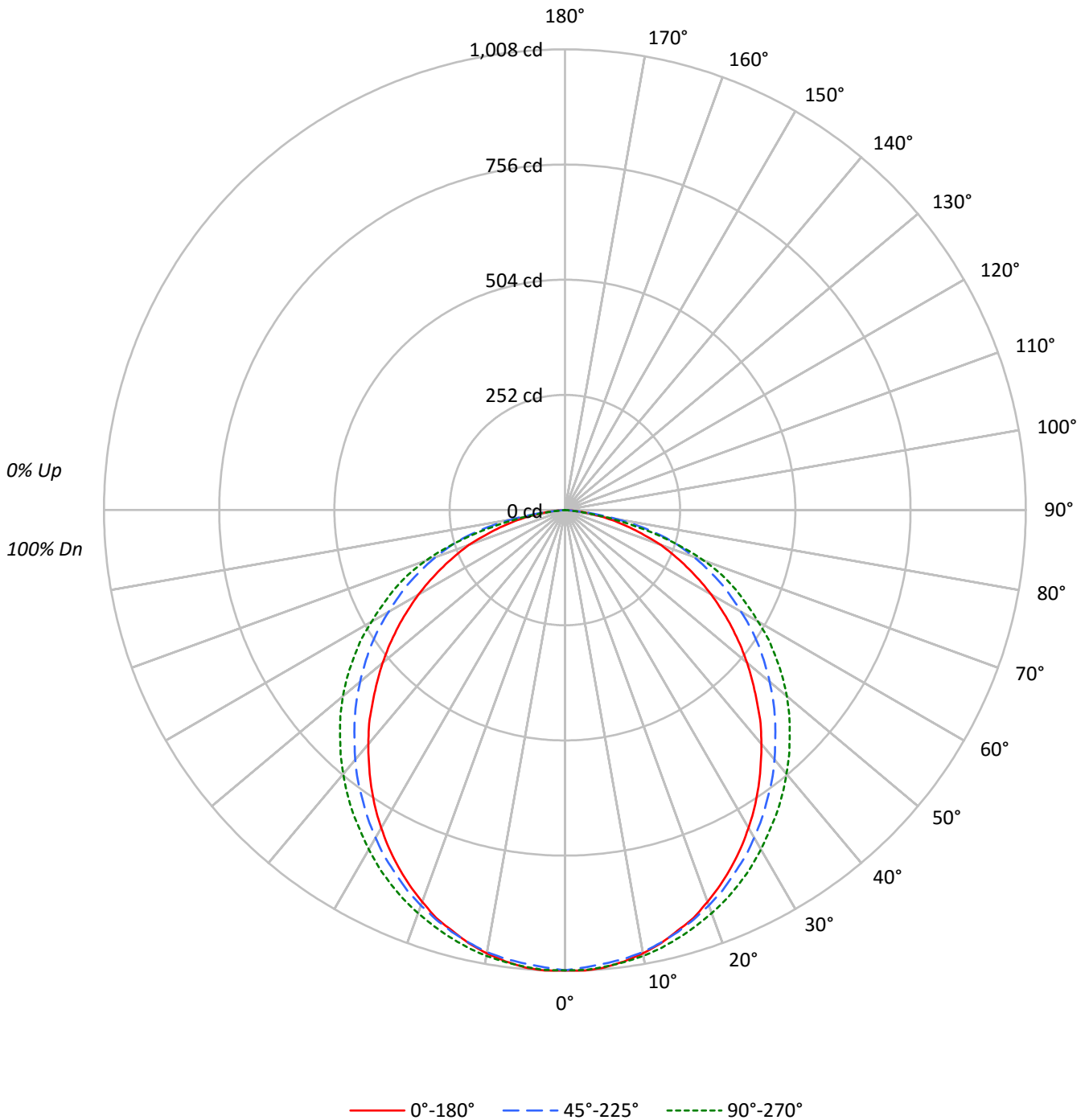
Lumens per Lamp: N/A  
Luminaire Lumens: 2821.0 lumens  
Efficiency: N/A  
Efficacy: 118.5 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 23.8  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2710	2710	2710
5°	2713	2690	2709
10°	2691	2683	2706
15°	2654	2661	2696
20°	2611	2635	2688
25°	2558	2604	2678
30°	2495	2573	2664
35°	2426	2536	2656
40°	2349	2506	2648
45°	2262	2475	2645
50°	2178	2447	2653
55°	2087	2428	2645
60°	1988	2394	2627
65°	1870	2387	2627
70°	1761	2366	2553
75°	1527	2312	2181
80°	1235	1864	1452
85°	821	648	432



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.1	3.4
10°-20°	270.6	9.6
20°-30°	405.9	14.4
30°-40°	484.2	17.2
40°-50°	500.6	17.7
50°-60°	457.0	16.2
60°-70°	359.7	12.7
70°-80°	209.4	7.4
80°-90°	38.6	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°	771.6	27.4
0°-40°	1255.8	44.5
0°-60°	2213.4	78.5
0°-90°	2821.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2821.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1007	1007	1007	1007	1007	
5°	1004	1002	996	1004	1003	95
15°	952	954	955	968	968	269
25°	862	866	877	898	902	397
35°	738	748	772	801	808	462
45°	594	614	650	687	695	459
55°	445	469	518	555	564	398
65°	294	324	375	404	413	292
75°	147	182	222	218	210	156
85°	27	38	21	17	14	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1007.1	1007.1	1007.1	1007.1	1007.1
2.5°	1008.4	1005.7	1001.5	1008.4	1007.1
5°	1004.3	1001.5	995.9	1004.3	1002.9
7.5°	995.9	993.1	990.3	998.7	997.3
10°	984.7	983.3	981.9	991.7	990.3
12.5°	970.7	970.7	969.3	980.5	980.5
15°	952.5	953.9	955.3	967.9	967.9
17.5°	935.7	934.3	938.5	952.5	953.9
20°	911.9	914.7	920.3	937.1	938.5
22.5°	888.2	891.0	900.8	917.5	921.7
25°	861.6	865.8	877.0	898.0	902.1
27.5°	833.6	839.2	854.6	877.0	881.2
30°	802.8	811.2	828.0	853.2	857.4
32.5°	772.1	780.5	801.4	826.6	832.2
35°	738.5	748.3	772.1	801.4	808.4
37.5°	703.5	716.1	744.1	773.5	781.9
40°	668.6	682.6	713.3	744.1	753.9
42.5°	633.6	647.6	681.2	716.1	725.9
45°	594.4	614.0	650.4	686.8	695.1
47.5°	556.7	577.7	618.2	654.6	665.8
50°	520.3	541.3	584.6	622.4	633.6
52.5°	482.5	504.9	551.1	590.2	600.0
55°	444.8	468.6	517.5	555.3	563.7
57.5°	407.0	432.2	482.5	518.9	528.7
60°	369.3	395.8	444.8	481.1	488.1
62.5°	331.5	359.5	409.8	442.0	449.0
65°	293.7	324.5	374.8	404.2	412.6
67.5°	257.4	288.1	337.1	365.1	372.0
70°	223.8	251.8	300.7	321.7	324.5
72.5°	181.8	216.8	264.4	275.5	268.5
75°	146.9	181.8	222.4	218.2	209.8
77.5°	111.9	146.9	173.4	159.4	148.3
80°	79.7	114.7	120.3	99.3	93.7
82.5°	51.8	79.7	67.1	51.8	42.0
85°	26.6	37.8	21.0	16.8	14.0
87.5°	8.4	5.6	2.8	2.8	1.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)