

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: P312351

Luminaire Tested: **14FCZ2-29-UNV-L83050-S-CP125-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: P312351  
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-CP125-W2A-U-3500K  
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" 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**

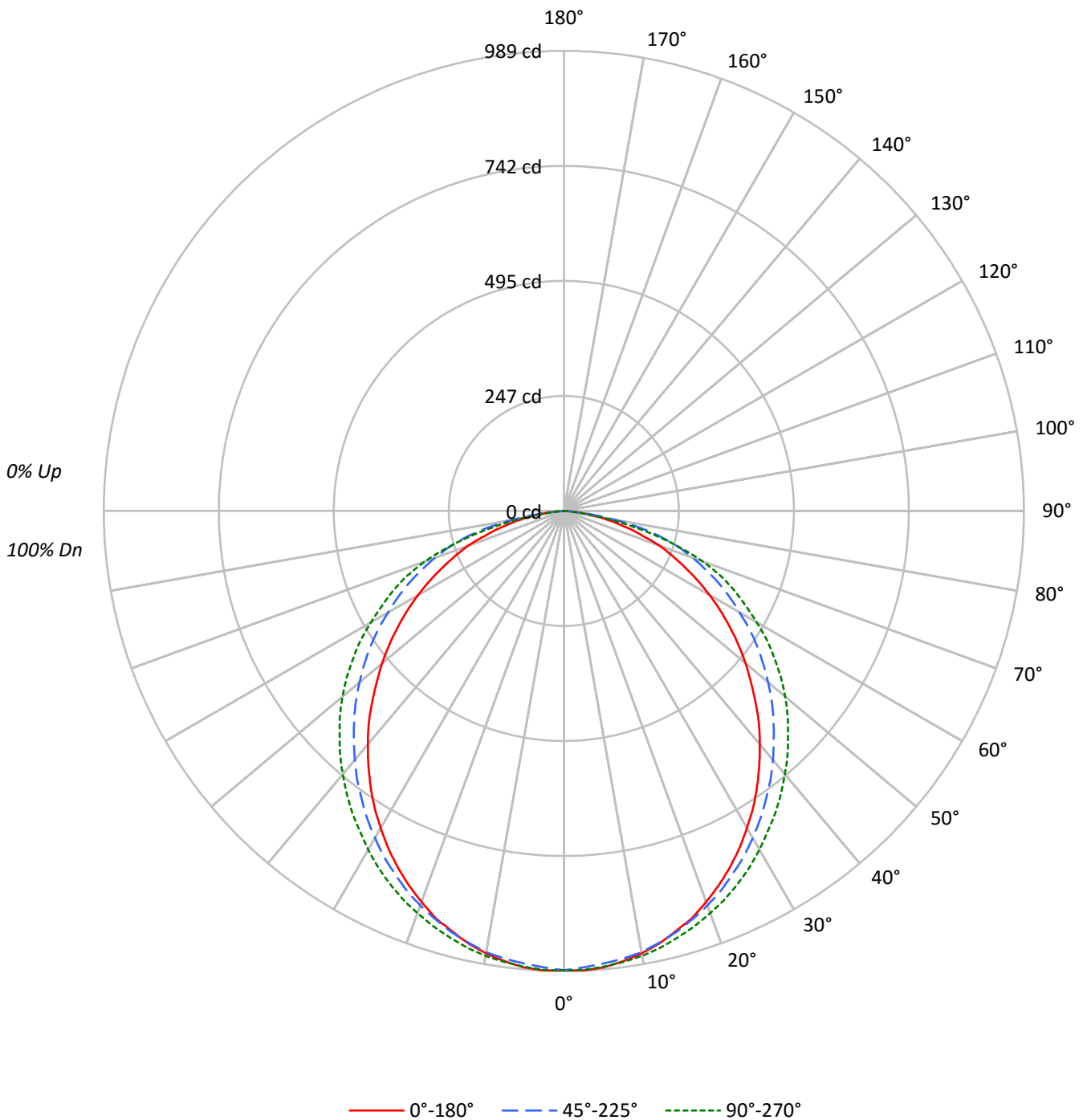
Lumens per Lamp: N/A  
Luminaire Lumens: 2766.0 lumens  
Efficiency: N/A  
Efficacy: 116.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 23.8  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2657	2657	2657
5°	2660	2638	2656
10°	2638	2631	2653
15°	2602	2610	2644
20°	2561	2584	2635
25°	2508	2553	2627
30°	2446	2523	2612
35°	2379	2487	2604
40°	2303	2457	2597
45°	2218	2427	2594
50°	2136	2400	2601
55°	2046	2381	2593
60°	1949	2347	2576
65°	1834	2340	2576
70°	1726	2320	2504
75°	1497	2268	2139
80°	1212	1827	1424
85°	806	636	423



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.2	3.4
10°-20°	265.3	9.6
20°-30°	398.0	14.4
30°-40°	474.8	17.2
40°-50°	490.8	17.7
50°-60°	448.1	16.2
60°-70°	352.6	12.7
70°-80°	205.3	7.4
80°-90°	37.8	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°	756.6	27.4
0°-40°	1231.3	44.5
0°-60°	2170.2	78.5
0°-90°	2766.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2766.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	987	987	987	987	987	
5°	985	982	976	985	983	93
15°	934	935	937	949	949	264
25°	845	849	860	880	885	389
35°	724	734	757	786	793	453
45°	583	602	638	673	682	450
55°	436	459	507	544	553	390
65°	288	318	368	396	405	286
75°	144	178	218	214	206	153
85°	26	37	21	16	14	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	987.4	987.4	987.4	987.4	987.4
2.5°	988.8	986.0	981.9	988.8	987.4
5°	984.7	981.9	976.4	984.7	983.3
7.5°	976.4	973.7	971.0	979.2	977.8
10°	965.5	964.1	962.7	972.3	971.0
12.5°	951.8	951.8	950.4	961.4	961.4
15°	933.9	935.3	936.7	949.0	949.0
17.5°	917.5	916.1	920.2	933.9	935.3
20°	894.2	896.9	902.4	918.8	920.2
22.5°	870.8	873.6	883.2	899.6	903.8
25°	844.8	848.9	859.9	880.4	884.6
27.5°	817.4	822.8	837.9	859.9	864.0
30°	787.2	795.4	811.9	836.6	840.7
32.5°	757.0	765.2	785.8	810.5	816.0
35°	724.1	733.7	757.0	785.8	792.7
37.5°	689.8	702.2	729.6	758.4	766.6
40°	655.5	669.2	699.4	729.6	739.2
42.5°	621.2	635.0	667.9	702.2	711.8
45°	582.8	602.0	637.7	673.4	681.6
47.5°	545.8	566.4	606.2	641.8	652.8
50°	510.2	530.7	573.2	610.3	621.2
52.5°	473.1	495.1	540.3	578.7	588.3
55°	436.1	459.4	507.4	544.5	552.7
57.5°	399.1	423.8	473.1	508.8	518.4
60°	362.1	388.1	436.1	471.8	478.6
62.5°	325.0	352.5	401.8	433.4	440.2
65°	288.0	318.2	367.5	396.3	404.6
67.5°	252.3	282.5	330.5	357.9	364.8
70°	219.4	246.9	294.9	315.4	318.2
72.5°	178.3	212.6	259.2	270.2	263.3
75°	144.0	178.3	218.1	213.9	205.7
77.5°	109.7	144.0	170.1	156.3	145.4
80°	78.2	112.5	117.9	97.4	91.9
82.5°	50.7	78.2	65.8	50.7	41.1
85°	26.1	37.0	20.6	16.5	13.7
87.5°	8.2	5.5	2.7	2.7	1.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)