

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: P312362

Luminaire Tested: **14FCZ2-29-UNV-L83050-S-CP250-W2A-U-4000K**

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: P312362  
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-CP250-W2A-U-4000K  
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.250" POLYCARB SHEET  
Light Source: (168) 4000K 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**

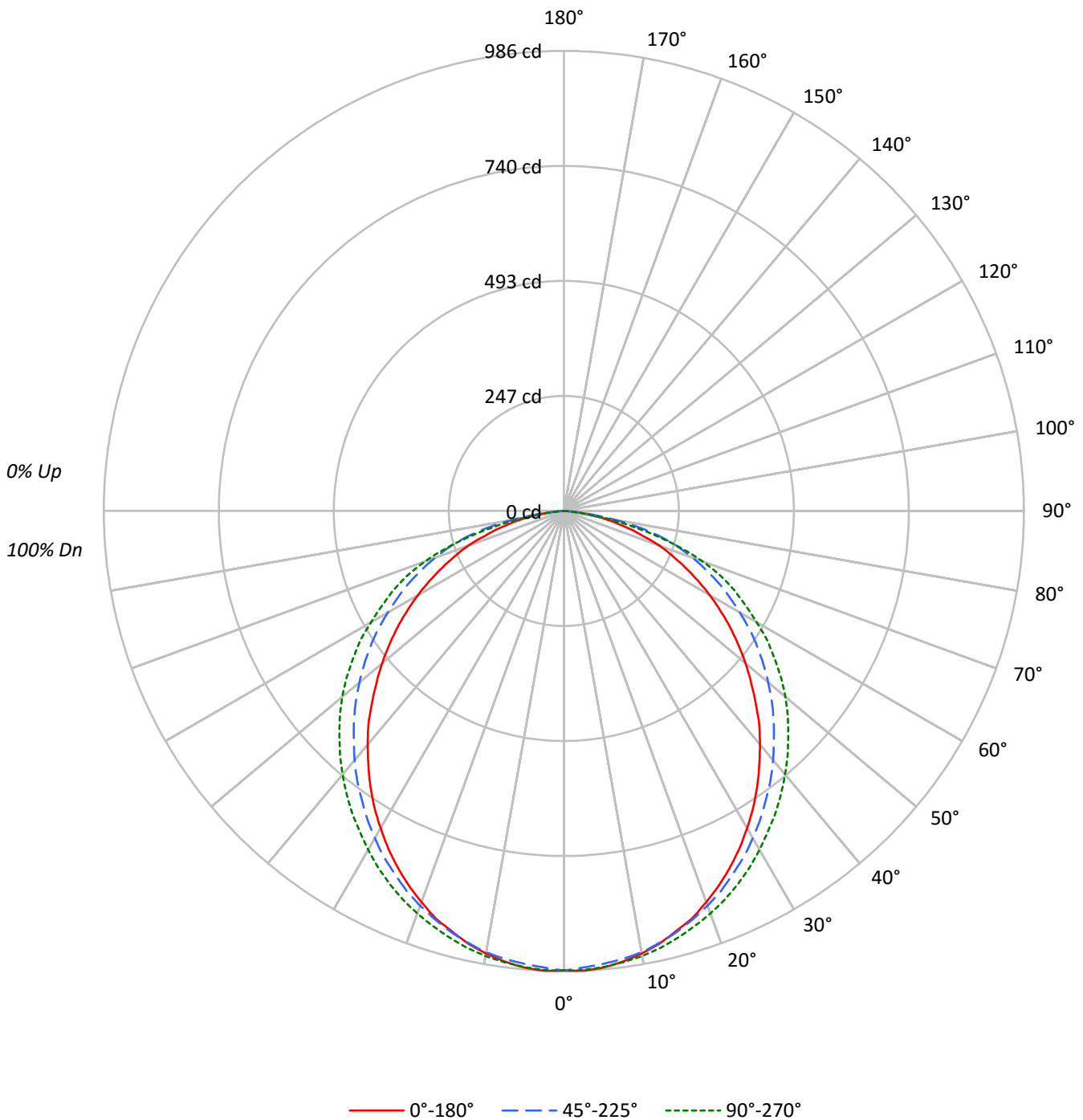
Lumens per Lamp: N/A  
Luminaire Lumens: 2759.0 lumens  
Efficiency: N/A  
Efficacy: 113.5 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 24.3  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2650	2650	2650
5°	2653	2631	2649
10°	2631	2624	2646
15°	2595	2603	2637
20°	2554	2578	2629
25°	2502	2547	2620
30°	2440	2516	2605
35°	2373	2481	2598
40°	2297	2451	2590
45°	2213	2421	2587
50°	2130	2394	2594
55°	2041	2374	2586
60°	1943	2341	2569
65°	1829	2334	2569
70°	1722	2314	2497
75°	1493	2261	2133
80°	1209	1822	1421
85°	803	633	423



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.0	3.4
10°-20°	264.7	9.6
20°-30°	397.0	14.4
30°-40°	473.6	17.2
40°-50°	489.6	17.7
50°-60°	447.0	16.2
60°-70°	351.8	12.7
70°-80°	204.7	7.4
80°-90°	37.7	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°	754.6	27.4
0°-40°	1228.2	44.5
0°-60°	2164.8	78.5
0°-90°	2759.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2759.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	985	985	985	985	985	
5°	982	979	974	982	981	93
15°	932	933	934	947	947	263
25°	843	847	858	878	882	388
35°	722	732	755	784	791	451
45°	581	600	636	672	680	449
55°	435	458	506	543	551	389
65°	287	317	367	395	404	285
75°	144	178	218	213	205	153
85°	26	37	20	16	14	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	984.9	984.9	984.9	984.9	984.9
2.5°	986.3	983.5	979.4	986.3	984.9
5°	982.2	979.4	974.0	982.2	980.8
7.5°	974.0	971.2	968.5	976.7	975.3
10°	963.0	961.7	960.3	969.9	968.5
12.5°	949.4	949.4	948.0	958.9	958.9
15°	931.6	932.9	934.3	946.6	946.6
17.5°	915.2	913.8	917.9	931.6	932.9
20°	891.9	894.6	900.1	916.5	917.9
22.5°	868.6	871.4	881.0	897.4	901.5
25°	842.7	846.8	857.7	878.2	882.3
27.5°	815.3	820.8	835.8	857.7	861.8
30°	785.2	793.4	809.8	834.4	838.5
32.5°	755.1	763.3	783.8	808.5	813.9
35°	722.3	731.8	755.1	783.8	790.7
37.5°	688.1	700.4	727.7	756.5	764.7
40°	653.9	667.6	697.6	727.7	737.3
42.5°	619.7	633.4	666.2	700.4	710.0
45°	581.4	600.5	636.1	671.7	679.9
47.5°	544.4	565.0	604.6	640.2	651.1
50°	508.9	529.4	571.8	608.7	619.7
52.5°	471.9	493.8	539.0	577.3	586.8
55°	435.0	458.3	506.1	543.1	551.3
57.5°	398.1	422.7	471.9	507.5	517.1
60°	361.1	387.1	435.0	470.6	477.4
62.5°	324.2	351.6	400.8	432.3	439.1
65°	287.3	317.4	366.6	395.3	403.5
67.5°	251.7	281.8	329.7	357.0	363.9
70°	218.9	246.2	294.1	314.6	317.4
72.5°	177.8	212.0	258.5	269.5	262.6
75°	143.6	177.8	217.5	213.4	205.2
77.5°	109.4	143.6	169.6	155.9	145.0
80°	78.0	112.2	117.6	97.1	91.7
82.5°	50.6	78.0	65.7	50.6	41.0
85°	26.0	36.9	20.5	16.4	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)