

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: P312815

Luminaire Tested: **22FCZ2-34HE-UNV-L83050-CA08-W2A-U-3000K**

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: P312815  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22FCZ2-34HE-UNV-L83050-CA08-W2A-U-3000K  
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.08" ACRYLIC SHEET  
Light Source: (168) 3000K 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

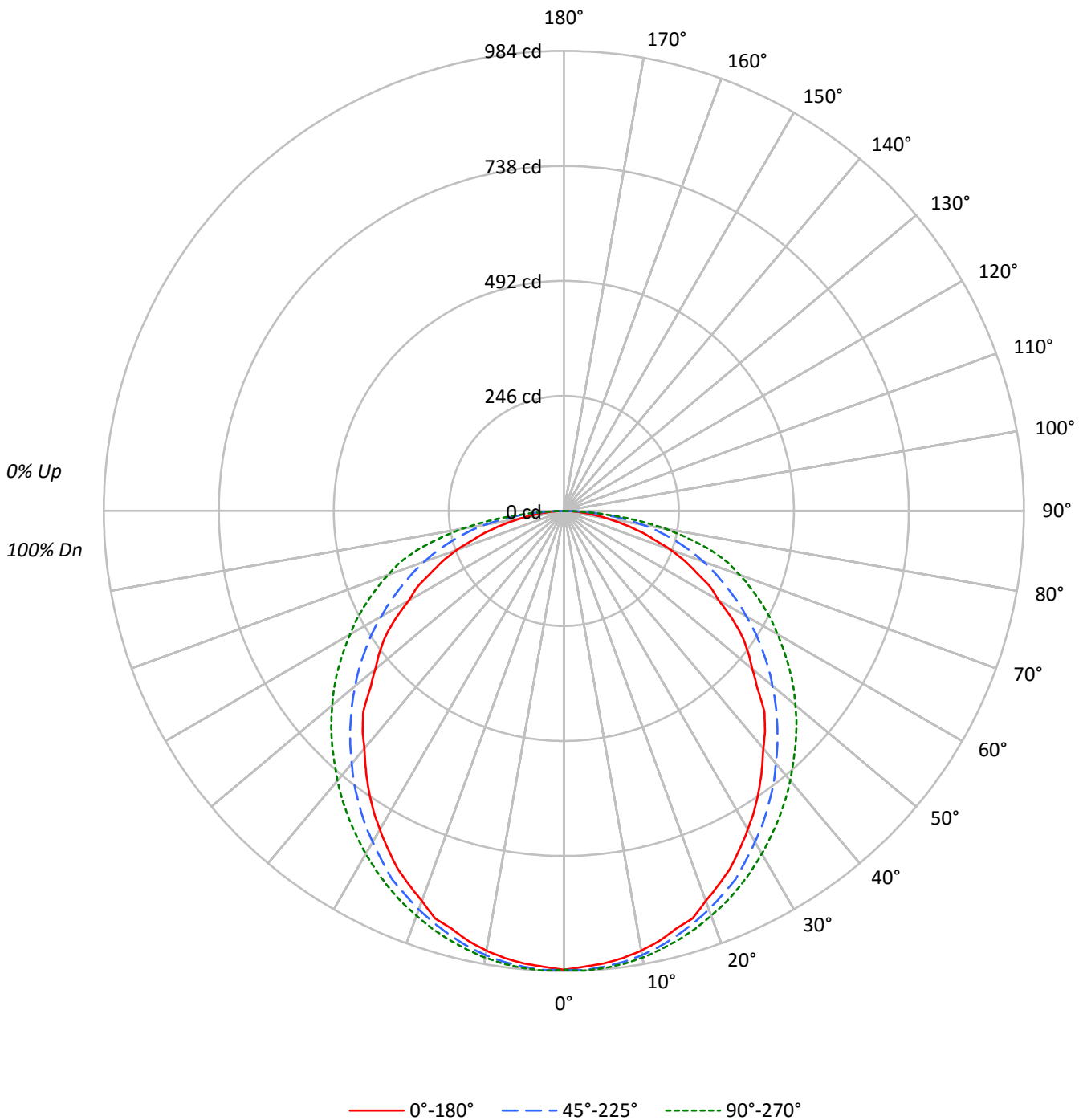
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2925.1 lumens  
Efficiency: N/A  
Efficacy: 106.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 27.5  
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	108	103	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2641	2641	2641
5°	2625	2643	2651
10°	2609	2636	2651
15°	2578	2617	2644
20°	2542	2598	2638
25°	2502	2581	2635
30°	2445	2541	2632
35°	2392	2511	2635
40°	2331	2479	2646
45°	2307	2456	2669
50°	2204	2438	2708
55°	2181	2430	2765
60°	2057	2426	2841
65°	1997	2443	2968
70°	1917	2500	3150
75°	1747	2576	3392
80°	1497	2669	3428
85°	1210	2550	2939



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	92.9	3.2
10°-20°	264.9	9.1
20°-30°	398.7	13.6
30°-40°	478.5	16.4
40°-50°	500.2	17.1
50°-60°	466.1	15.9
60°-70°	382.3	13.1
70°-80°	257.6	8.8
80°-90°	83.9	2.9
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°	756.5	25.9
0°-40°	1235.0	42.2
0°-60°	2201.3	75.3
0°-90°	2925.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2925.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	981	981	981	981	981	
5°	972	974	979	980	981	92
15°	925	931	939	948	949	262
25°	843	848	869	882	888	387
35°	728	738	764	791	802	455
45°	606	610	645	685	701	463
55°	465	473	518	567	589	412
65°	314	328	384	440	466	312
75°	168	186	248	304	326	177
85°	39	56	83	97	95	47
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	981.4	981.4	981.4	981.4	981.4
2.5°	975.8	978.6	982.8	984.2	984.2
5°	971.6	974.4	978.6	980.0	981.4
7.5°	964.6	967.4	973.0	975.8	977.2
10°	954.8	957.6	964.6	968.8	970.2
12.5°	942.2	945.0	953.4	959.0	960.4
15°	925.4	931.0	939.4	947.8	949.2
17.5°	914.2	912.8	924.0	933.8	936.6
20°	887.6	894.6	907.2	918.4	921.2
22.5°	865.2	870.8	887.6	900.2	905.8
25°	842.8	848.4	869.4	882.0	887.6
27.5°	814.8	823.2	842.8	861.0	868.0
30°	786.8	795.2	817.6	838.6	847.0
32.5°	758.8	768.6	792.4	814.8	824.6
35°	728.0	737.8	764.4	791.0	802.2
37.5°	695.8	708.4	736.4	765.8	778.4
40°	663.6	676.2	705.6	739.2	753.2
42.5°	637.0	642.6	676.2	712.6	726.6
45°	606.2	610.4	645.4	684.6	701.4
47.5°	561.4	576.8	614.6	658.0	674.8
50°	526.4	543.2	582.4	628.6	646.8
52.5°	497.0	508.2	551.6	597.8	618.8
55°	464.8	473.2	518.0	567.0	589.4
57.5°	425.6	441.0	485.8	536.2	558.6
60°	382.2	401.8	450.8	505.4	527.8
62.5°	354.2	365.4	418.6	473.2	498.4
65°	313.6	327.6	383.6	439.6	466.2
67.5°	280.0	294.0	351.4	407.4	434.0
70°	243.6	257.6	317.8	373.8	400.4
72.5°	201.6	221.2	284.2	340.2	368.2
75°	168.0	186.2	247.8	303.8	326.2
77.5°	130.2	154.0	211.4	257.6	274.4
80°	96.6	120.4	172.2	205.8	221.2
82.5°	65.8	89.6	128.8	154.0	162.4
85°	39.2	56.0	82.6	96.6	95.2
87.5°	18.2	23.8	33.6	33.6	32.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)