

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: P308774

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-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: P308774  
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-L82765-CP250-W2A-U-4000K  
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.250" POLYCARB 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**

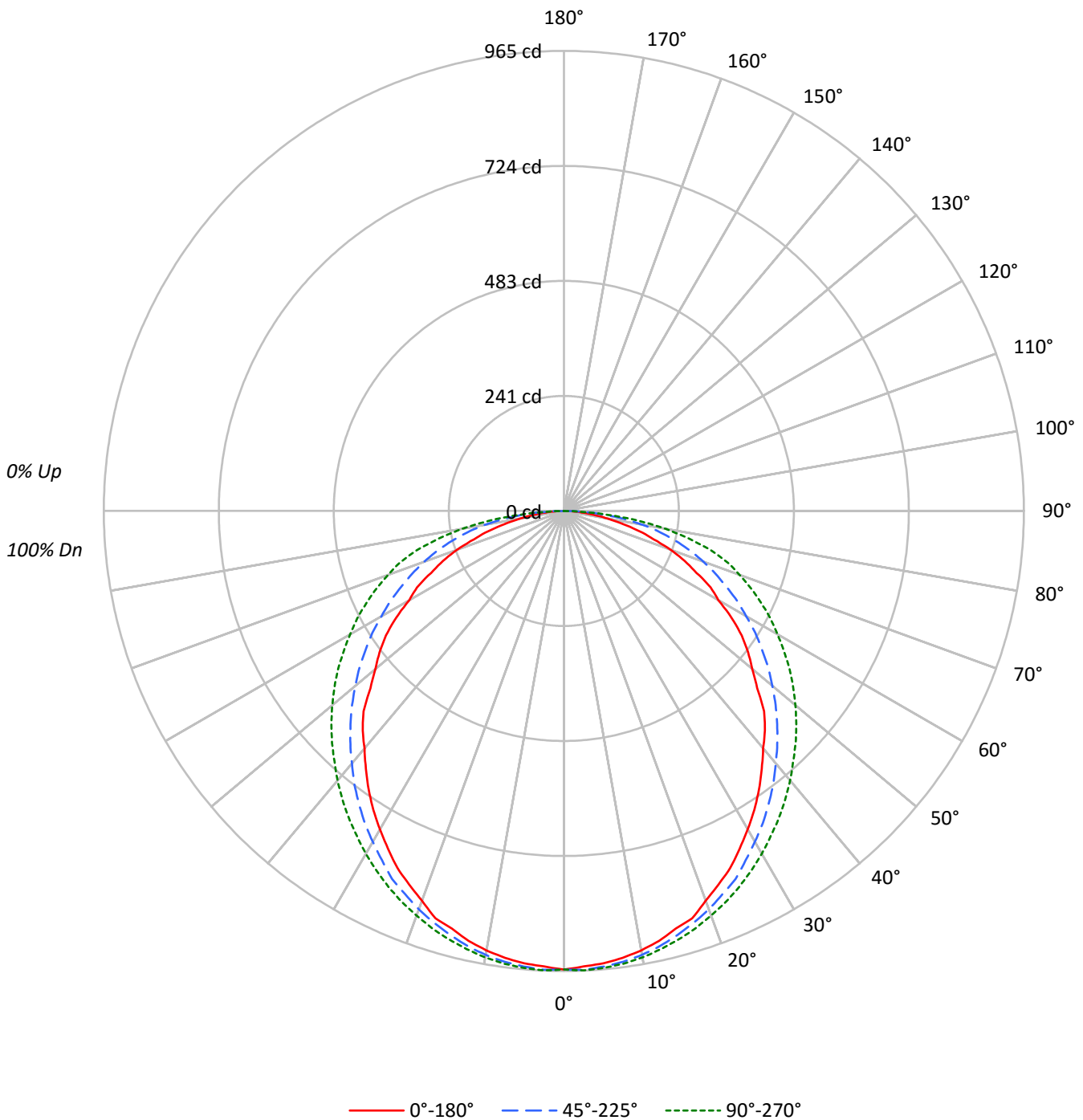
Lumens per Lamp: N/A  
Luminaire Lumens: 2867.0 lumens  
Efficiency: N/A  
Efficacy: 102.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 27.9  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2588	2588	2588
5°	2572	2591	2598
10°	2557	2583	2598
15°	2527	2565	2592
20°	2491	2546	2586
25°	2453	2530	2583
30°	2396	2490	2580
35°	2344	2461	2583
40°	2285	2429	2593
45°	2261	2407	2616
50°	2160	2390	2654
55°	2137	2382	2710
60°	2016	2378	2784
65°	1957	2394	2909
70°	1879	2451	3087
75°	1712	2525	3324
80°	1468	2616	3360
85°	1186	2501	2881



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.0	3.2
10°-20°	259.7	9.1
20°-30°	390.8	13.6
30°-40°	469.0	16.4
40°-50°	490.2	17.1
50°-60°	456.8	15.9
60°-70°	374.7	13.1
70°-80°	252.5	8.8
80°-90°	82.2	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°	741.5	25.9
0°-40°	1210.5	42.2
0°-60°	2157.6	75.3
0°-90°	2867.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2867.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	962	962	962	962	962	
5°	952	955	959	960	962	90
15°	907	912	921	929	930	256
25°	826	832	852	864	870	380
35°	714	723	749	775	786	446
45°	594	598	633	671	688	454
55°	456	464	508	556	578	404
65°	307	321	376	431	457	306
75°	165	182	243	298	320	173
85°	38	55	81	95	93	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	961.9	961.9	961.9	961.9	961.9
2.5°	956.4	959.2	963.3	964.6	964.6
5°	952.3	955.0	959.2	960.5	961.9
7.5°	945.4	948.2	953.7	956.4	957.8
10°	935.8	938.6	945.4	949.6	950.9
12.5°	923.5	926.2	934.5	939.9	941.3
15°	907.0	912.5	920.7	929.0	930.3
17.5°	896.0	894.7	905.6	915.2	918.0
20°	870.0	876.8	889.2	900.2	902.9
22.5°	848.0	853.5	870.0	882.3	887.8
25°	826.1	831.5	852.1	864.5	870.0
27.5°	798.6	806.8	826.1	843.9	850.8
30°	771.2	779.4	801.4	821.9	830.2
32.5°	743.7	753.3	776.7	798.6	808.2
35°	713.5	723.1	749.2	775.3	786.3
37.5°	682.0	694.3	721.8	750.6	762.9
40°	650.4	662.8	691.6	724.5	738.2
42.5°	624.3	629.8	662.8	698.4	712.2
45°	594.2	598.3	632.6	671.0	687.5
47.5°	550.2	565.3	602.4	644.9	661.4
50°	515.9	532.4	570.8	616.1	634.0
52.5°	487.1	498.1	540.6	585.9	606.5
55°	455.6	463.8	507.7	555.7	577.7
57.5°	417.1	432.2	476.1	525.5	547.5
60°	374.6	393.8	441.8	495.4	517.3
62.5°	347.2	358.1	410.3	463.8	488.5
65°	307.4	321.1	376.0	430.9	456.9
67.5°	274.4	288.2	344.4	399.3	425.4
70°	238.8	252.5	311.5	366.4	392.4
72.5°	197.6	216.8	278.6	333.4	360.9
75°	164.7	182.5	242.9	297.8	319.7
77.5°	127.6	150.9	207.2	252.5	268.9
80°	94.7	118.0	168.8	201.7	216.8
82.5°	64.5	87.8	126.2	150.9	159.2
85°	38.4	54.9	81.0	94.7	93.3
87.5°	17.8	23.3	32.9	32.9	31.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)