

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: P311963

Luminaire Tested: **14FCZ2-39-UNV-L83050-HRP-CP250-W2A-U-4500K**

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: P311963  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 14FCZ2-39-UNV-L83050-HRP-CP250-W2A-U-4500K  
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"  
POLYCARB SHEET  
Light Source: (168) 4500K 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: 2774.0 lumens  
Efficiency: N/A  
Efficacy: 79.5 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

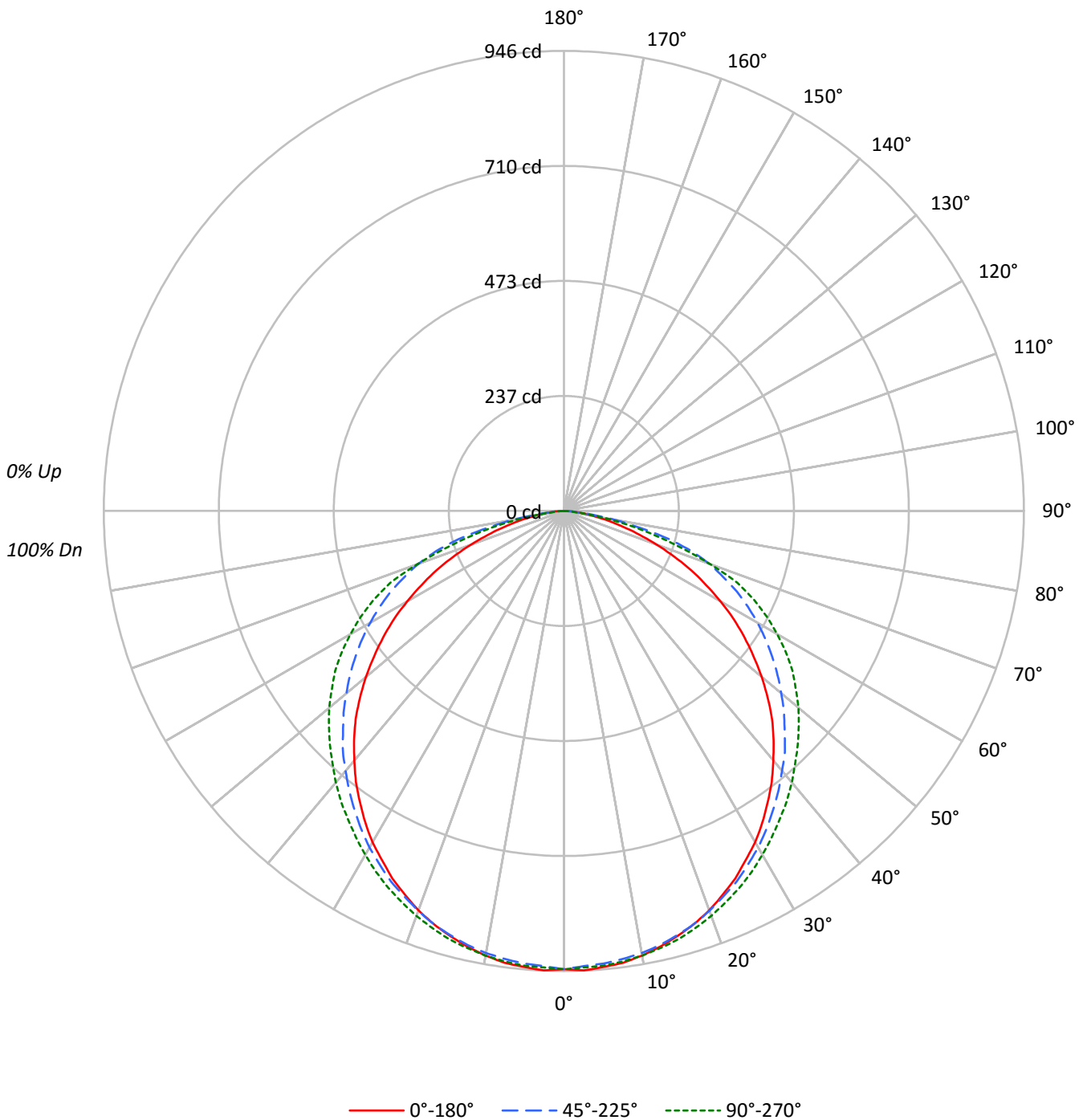
Input Watts (W): 34.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

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

	0°	45°	90°
0°	2535	2535	2535
5°	2542	2524	2535
10°	2536	2522	2536
15°	2520	2515	2539
20°	2503	2505	2538
25°	2476	2497	2538
30°	2445	2483	2537
35°	2401	2464	2542
40°	2353	2451	2562
45°	2304	2443	2589
50°	2224	2443	2637
55°	2128	2456	2693
60°	2000	2474	2728
65°	1844	2499	2744
70°	1606	2505	2526
75°	1325	2331	2041
80°	1041	1677	1365
85°	809	645	324



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.2	3.2
10°-20°	255.9	9.2
20°-30°	388.6	14.0
30°-40°	470.9	17.0
40°-50°	496.2	17.9
50°-60°	463.3	16.7
60°-70°	370.2	13.3
70°-80°	203.7	7.3
80°-90°	36.0	1.3
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°	733.7	26.5
0°-40°	1204.7	43.4
0°-60°	2164.1	78.0
0°-90°	2774.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2774.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	942	942	942	942	942	
5°	941	939	934	940	939	89
15°	905	905	903	912	912	255
25°	834	836	841	853	855	384
35°	731	738	750	769	774	457
45°	605	617	642	671	680	466
55°	454	476	523	560	574	405
65°	290	326	392	425	431	285
75°	127	182	224	202	196	137
85°	26	33	21	13	10	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	942.1	942.1	942.1	942.1	942.1
2.5°	945.6	942.9	936.8	942.1	939.4
5°	941.2	938.6	934.2	940.3	938.6
7.5°	936.8	933.3	929.0	936.0	934.2
10°	928.1	925.5	922.9	929.0	928.1
12.5°	917.6	916.8	914.2	921.1	920.3
15°	904.6	904.6	902.8	911.5	911.5
17.5°	890.6	889.7	890.6	900.2	899.3
20°	874.0	874.0	874.9	886.2	886.2
22.5°	854.0	854.8	857.5	871.4	870.5
25°	833.9	835.6	840.9	853.1	854.8
27.5°	809.5	813.8	819.9	834.8	836.5
30°	786.8	789.4	799.0	813.0	816.5
32.5°	759.8	765.0	775.5	791.2	795.5
35°	731.0	738.0	750.2	769.4	773.7
37.5°	702.2	708.3	724.9	744.9	752.8
40°	669.9	680.4	697.8	720.5	729.2
42.5°	638.5	649.0	672.5	696.1	703.9
45°	605.4	616.7	642.0	670.8	680.4
47.5°	568.7	581.8	614.1	644.6	655.1
50°	531.2	547.8	583.6	617.6	629.8
52.5°	492.0	512.9	553.9	589.7	601.0
55°	453.6	476.3	523.4	560.0	574.0
57.5°	414.3	438.8	492.0	533.8	541.7
60°	371.6	401.2	459.7	496.3	506.8
62.5°	329.7	363.7	426.5	461.4	470.2
65°	289.6	326.2	392.5	424.8	430.9
67.5°	246.0	289.6	355.0	384.7	386.4
70°	204.1	254.7	318.4	332.3	321.0
72.5°	163.1	217.2	275.6	264.3	254.7
75°	127.4	182.3	224.2	201.5	196.3
77.5°	94.2	149.2	160.5	148.3	138.7
80°	67.2	117.8	108.2	92.5	88.1
82.5°	46.2	74.1	59.3	46.2	40.1
85°	26.2	33.1	20.9	13.1	10.5
87.5°	11.3	7.9	4.4	3.5	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)