

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: P311946

Luminaire Tested: **14FCZ2-39-UNV-L83050-HRP-CA125-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: P311946
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-CA125-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC 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: 2810.0 lumens
Efficiency: N/A
Efficacy: 84.4 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

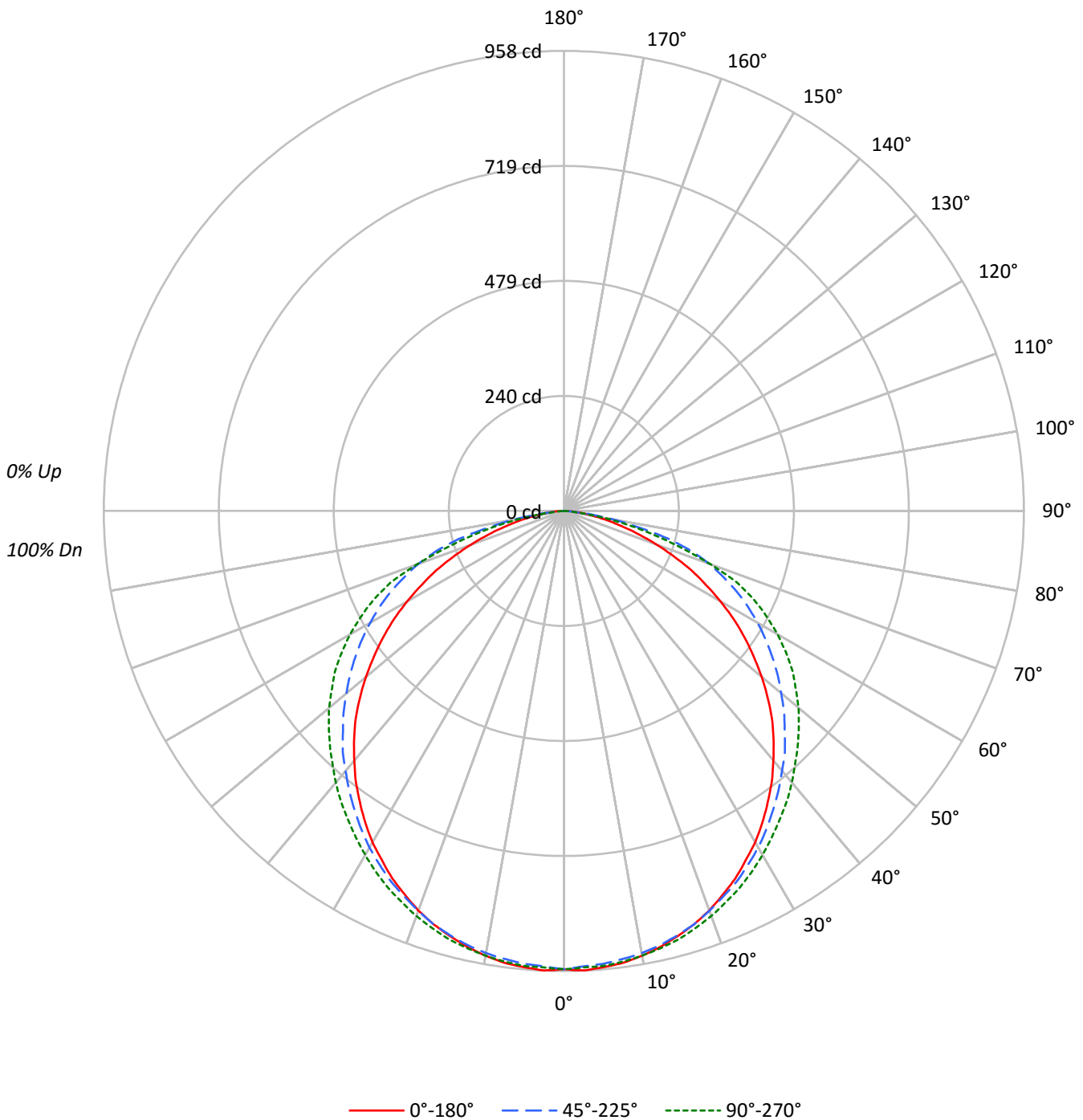
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2568	2568	2568
5°	2575	2556	2568
10°	2569	2555	2569
15°	2553	2548	2573
20°	2536	2538	2571
25°	2508	2529	2571
30°	2476	2515	2570
35°	2433	2496	2575
40°	2384	2483	2595
45°	2334	2475	2623
50°	2253	2475	2671
55°	2156	2487	2728
60°	2026	2506	2763
65°	1868	2532	2779
70°	1627	2537	2559
75°	1341	2361	2067
80°	1054	1698	1382
85°	818	655	327



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.3	3.2
10°-20°	259.2	9.2
20°-30°	393.7	14.0
30°-40°	477.0	17.0
40°-50°	502.7	17.9
50°-60°	469.3	16.7
60°-70°	375.0	13.3
70°-80°	206.3	7.3
80°-90°	36.4	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°	743.3	26.5
0°-40°	1220.3	43.4
0°-60°	2192.2	78.0
0°-90°	2810.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2810.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	954	954	954	954	954	
5°	953	951	946	952	951	91
15°	916	916	914	923	923	259
25°	845	846	852	864	866	389
35°	740	748	760	779	784	463
45°	613	625	650	680	689	472
55°	460	482	530	567	581	410
65°	293	330	398	430	436	289
75°	129	185	227	204	199	139
85°	26	34	21	13	11	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	954.3	954.3	954.3	954.3	954.3
2.5°	957.8	955.2	949.0	954.3	951.6
5°	953.4	950.8	946.3	952.5	950.8
7.5°	949.0	945.5	941.0	948.1	946.3
10°	940.2	937.5	934.9	941.0	940.2
12.5°	929.5	928.7	926.0	933.1	932.2
15°	916.3	916.3	914.5	923.4	923.4
17.5°	902.2	901.3	902.2	911.9	911.0
20°	885.4	885.4	886.3	897.7	897.7
22.5°	865.0	865.9	868.6	882.7	881.8
25°	844.7	846.5	851.8	864.2	865.9
27.5°	820.0	824.4	830.6	845.6	847.4
30°	797.0	799.7	809.4	823.5	827.1
32.5°	769.6	774.9	785.5	801.4	805.8
35°	740.5	747.5	759.9	779.3	783.8
37.5°	711.3	717.5	734.3	754.6	762.5
40°	678.6	689.2	706.9	729.9	738.7
42.5°	646.8	657.4	681.3	705.1	713.1
45°	613.2	624.7	650.3	679.5	689.2
47.5°	576.1	589.4	622.1	653.0	663.6
50°	538.1	554.9	591.1	625.6	638.0
52.5°	498.4	519.6	561.1	597.3	608.8
55°	459.5	482.4	530.2	567.3	581.4
57.5°	419.7	444.5	498.4	540.8	548.7
60°	376.4	406.5	465.7	502.8	513.4
62.5°	334.0	368.5	432.1	467.4	476.3
65°	293.4	330.5	397.6	430.3	436.5
67.5°	249.2	293.4	359.6	389.7	391.4
70°	206.8	258.0	322.5	336.7	325.2
72.5°	165.2	220.0	279.2	267.7	258.0
75°	129.0	184.7	227.1	204.1	198.8
77.5°	95.4	151.1	162.6	150.2	140.5
80°	68.0	119.3	109.6	93.7	89.2
82.5°	46.8	75.1	60.1	46.8	40.6
85°	26.5	33.6	21.2	13.3	10.6
87.5°	11.5	8.0	4.4	3.5	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)