

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: P311945

Luminaire Tested: **14FCZ2-39-UNV-L83050-HRP-CA125-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: P311945
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-3000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" 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: 2655.0 lumens
Efficiency: N/A
Efficacy: 80.0 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

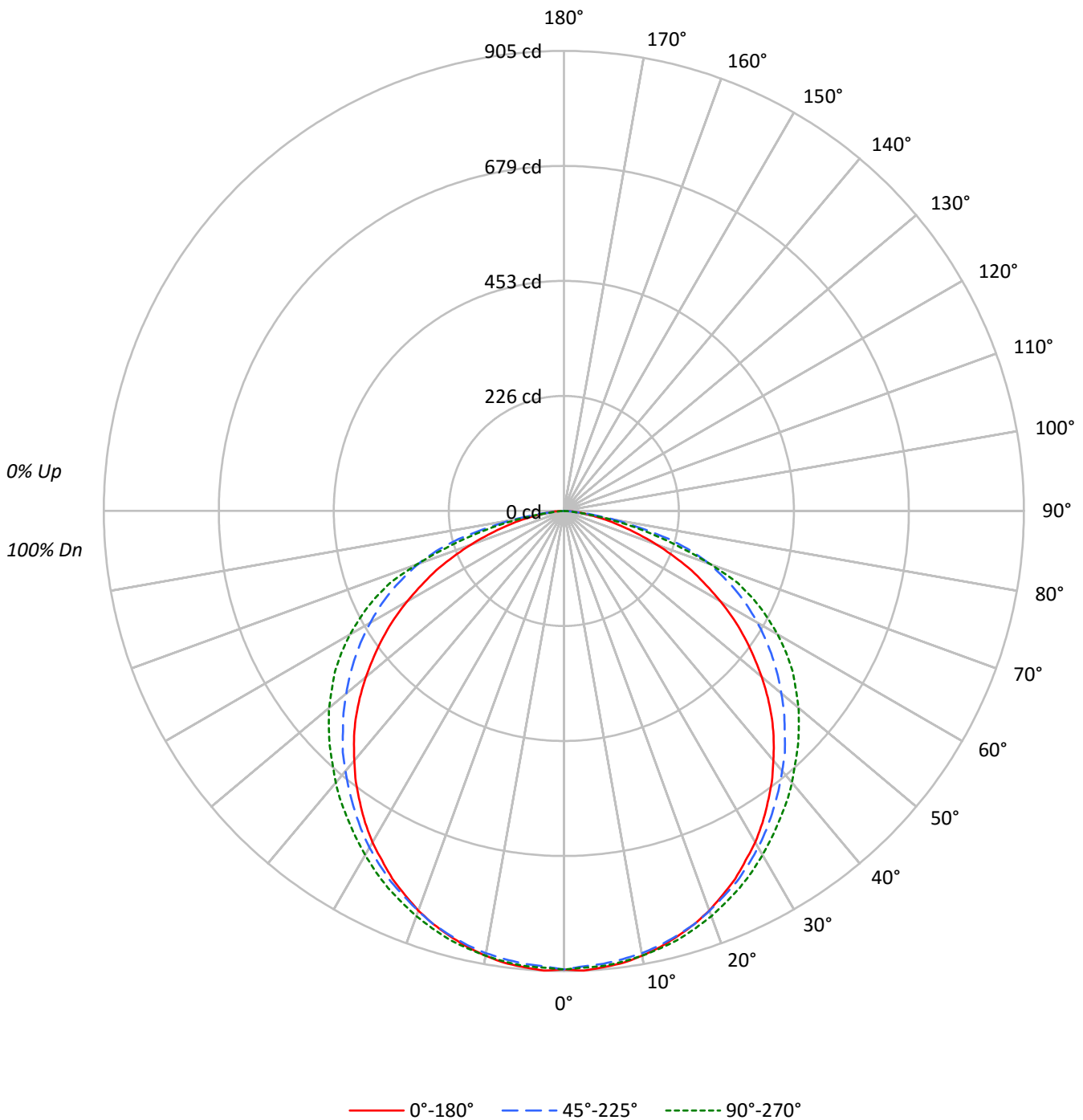
Input Watts (W): 33.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2426	2426	2426
5°	2433	2415	2427
10°	2427	2414	2427
15°	2412	2407	2430
20°	2395	2398	2429
25°	2370	2390	2429
30°	2340	2376	2428
35°	2298	2359	2433
40°	2252	2346	2452
45°	2205	2339	2478
50°	2128	2338	2524
55°	2037	2350	2577
60°	1914	2368	2611
65°	1765	2392	2626
70°	1537	2397	2417
75°	1267	2231	1953
80°	996	1604	1306
85°	772	618	309



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.4	3.2
10°-20°	244.9	9.2
20°-30°	372.0	14.0
30°-40°	450.7	17.0
40°-50°	474.9	17.9
50°-60°	443.4	16.7
60°-70°	354.3	13.3
70°-80°	195.0	7.3
80°-90°	34.4	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°	702.3	26.5
0°-40°	1153.0	43.4
0°-60°	2071.3	78.0
0°-90°	2655.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2655.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	902	902	902	902	902	
5°	901	898	894	900	898	86
15°	866	866	864	872	872	244
25°	798	800	805	816	818	367
35°	700	706	718	736	740	438
45°	579	590	614	642	651	446
55°	434	456	501	536	549	388
65°	277	312	376	407	412	273
75°	122	174	215	193	188	131
85°	25	32	20	12	10	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	901.7	901.7	901.7	901.7	901.7
2.5°	905.0	902.5	896.6	901.7	899.1
5°	900.8	898.3	894.1	900.0	898.3
7.5°	896.6	893.3	889.1	895.8	894.1
10°	888.3	885.8	883.3	889.1	888.3
12.5°	878.3	877.4	874.9	881.6	880.8
15°	865.8	865.8	864.1	872.4	872.4
17.5°	852.4	851.6	852.4	861.6	860.7
20°	836.5	836.5	837.4	848.2	848.2
22.5°	817.3	818.2	820.7	834.0	833.2
25°	798.1	799.8	804.8	816.5	818.2
27.5°	774.8	778.9	784.8	799.0	800.6
30°	753.0	755.6	764.7	778.1	781.4
32.5°	727.2	732.2	742.2	757.2	761.4
35°	699.6	706.3	718.0	736.3	740.5
37.5°	672.1	677.9	693.8	713.0	720.5
40°	641.2	651.2	667.9	689.6	697.9
42.5°	611.1	621.1	643.7	666.2	673.7
45°	579.4	590.2	614.5	642.0	651.2
47.5°	544.3	556.9	587.7	617.0	627.0
50°	508.4	524.3	558.5	591.1	602.8
52.5°	470.9	490.9	530.1	564.4	575.2
55°	434.1	455.8	500.9	536.0	549.3
57.5°	396.6	419.9	470.9	510.9	518.4
60°	355.7	384.0	440.0	475.0	485.1
62.5°	315.6	348.1	408.2	441.6	450.0
65°	277.2	312.2	375.7	406.6	412.4
67.5°	235.4	277.2	339.8	368.2	369.8
70°	195.4	243.8	304.7	318.1	307.2
72.5°	156.1	207.9	263.8	253.0	243.8
75°	121.9	174.5	214.6	192.9	187.8
77.5°	90.2	142.8	153.6	141.9	132.7
80°	64.3	112.7	103.5	88.5	84.3
82.5°	44.2	71.0	56.8	44.2	38.4
85°	25.0	31.7	20.0	12.5	10.0
87.5°	10.9	7.5	4.2	3.3	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)