

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: P311965

Luminaire Tested: **14FCZ2-44-UNV-L83050-HRP-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: P311965
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: 14FCZ2-44-UNV-L83050-HRP-CA08-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. 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: 2979.0 lumens
Efficiency: N/A
Efficacy: 78.0 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

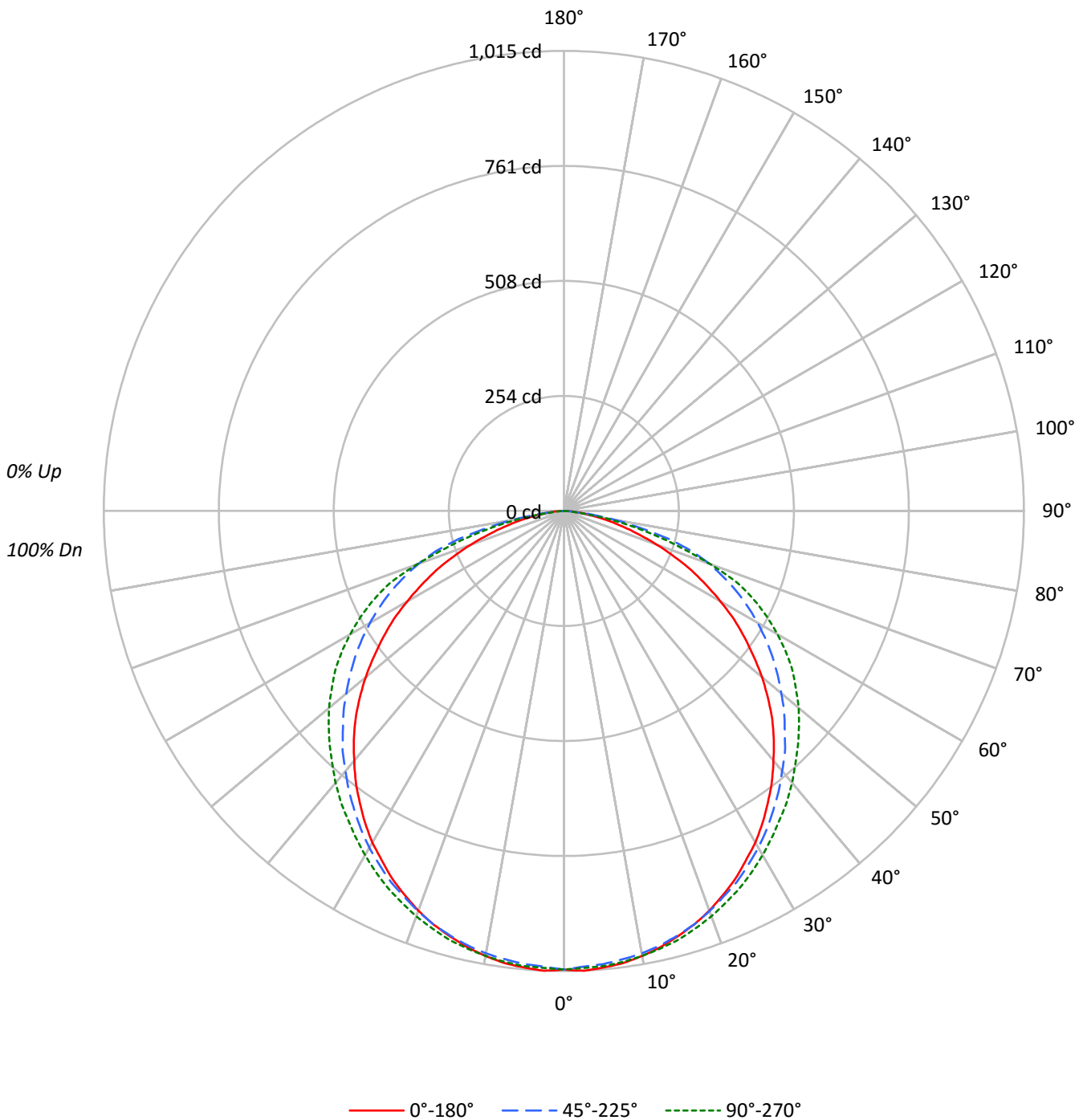
Input Watts (W): 38.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2722	2722	2722
5°	2730	2710	2723
10°	2723	2708	2723
15°	2706	2701	2727
20°	2688	2691	2725
25°	2659	2681	2726
30°	2625	2666	2724
35°	2579	2646	2730
40°	2527	2633	2751
45°	2474	2624	2781
50°	2388	2624	2831
55°	2285	2637	2892
60°	2148	2657	2929
65°	1980	2684	2947
70°	1725	2690	2712
75°	1422	2503	2192
80°	1117	1801	1466
85°	868	695	346



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.8	3.2
10°-20°	274.8	9.2
20°-30°	417.4	14.0
30°-40°	505.7	17.0
40°-50°	532.9	17.9
50°-60°	497.5	16.7
60°-70°	397.6	13.3
70°-80°	218.8	7.3
80°-90°	38.6	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°	788.0	26.5
0°-40°	1293.7	43.4
0°-60°	2324.0	78.0
0°-90°	2979.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2979.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1012	1012	1012	1012	1012	
5°	1011	1008	1003	1010	1008	96
15°	971	971	970	979	979	274
25°	896	897	903	916	918	412
35°	785	792	806	826	831	491
45°	650	662	689	720	731	500
55°	487	512	562	601	616	435
65°	311	350	422	456	463	306
75°	137	196	241	216	211	147
85°	28	36	22	14	11	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1011.7	1011.7	1011.7	1011.7	1011.7
2.5°	1015.4	1012.6	1006.1	1011.7	1008.9
5°	1010.7	1007.9	1003.3	1009.8	1007.9
7.5°	1006.1	1002.3	997.6	1005.1	1003.3
10°	996.7	993.9	991.1	997.6	996.7
12.5°	985.5	984.5	981.7	989.2	988.3
15°	971.4	971.4	969.5	978.9	978.9
17.5°	956.4	955.5	956.4	966.7	965.8
20°	938.6	938.6	939.6	951.7	951.7
22.5°	917.1	918.0	920.8	935.8	934.9
25°	895.5	897.4	903.0	916.1	918.0
27.5°	869.3	874.0	880.5	896.5	898.3
30°	844.9	847.8	858.1	873.0	876.8
32.5°	815.9	821.5	832.8	849.6	854.3
35°	785.0	792.5	805.6	826.2	830.9
37.5°	754.1	760.6	778.4	800.0	808.4
40°	719.4	730.7	749.4	773.8	783.1
42.5°	685.7	696.9	722.2	747.5	756.0
45°	650.1	662.3	689.4	720.4	730.7
47.5°	610.8	624.8	659.5	692.3	703.5
50°	570.5	588.3	626.7	663.2	676.3
52.5°	528.3	550.8	594.8	633.2	645.4
55°	487.1	511.5	562.0	601.4	616.4
57.5°	445.0	471.2	528.3	573.3	581.7
60°	399.1	430.9	493.7	533.0	544.2
62.5°	354.1	390.6	458.1	495.5	504.9
65°	311.0	350.3	421.5	456.2	462.8
67.5°	264.2	311.0	381.3	413.1	415.0
70°	219.2	273.5	341.9	356.9	344.7
72.5°	175.2	233.2	296.0	283.8	273.5
75°	136.8	195.8	240.7	216.4	210.8
77.5°	101.2	160.2	172.4	159.2	148.9
80°	72.1	126.5	116.2	99.3	94.6
82.5°	49.6	79.6	63.7	49.6	43.1
85°	28.1	35.6	22.5	14.1	11.2
87.5°	12.2	8.4	4.7	3.7	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)