

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: P312116

Luminaire Tested: **14FCZ2-44-UNV-L83050-RDP-CA08-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: P312116
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)
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-RDP-CA08-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.08" 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: 2667.0 lumens
Efficiency: N/A
Efficacy: 69.6 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

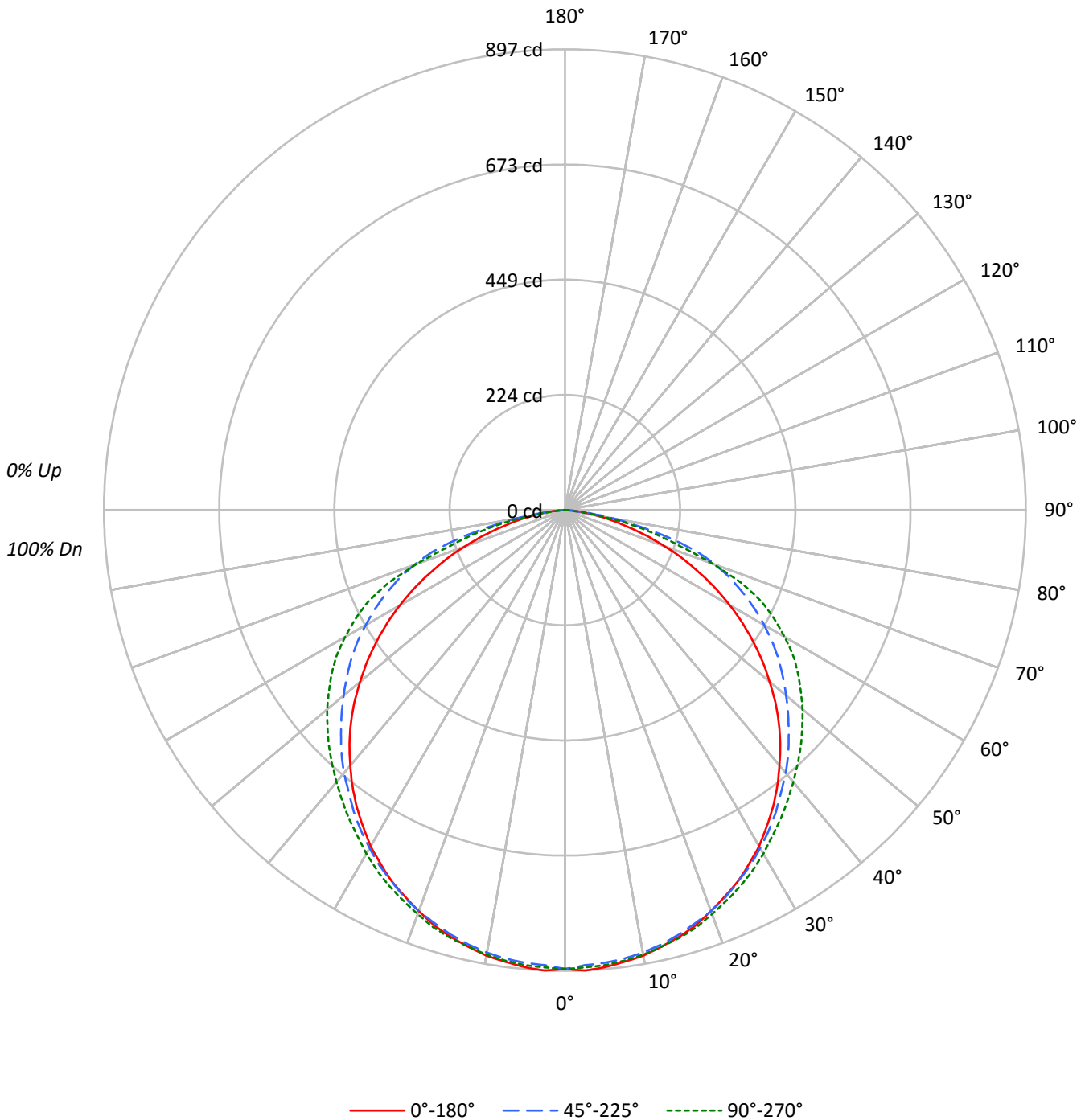
Input Watts (W): 38.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2404	2404	2404
5°	2413	2390	2402
10°	2407	2390	2401
15°	2396	2384	2401
20°	2379	2379	2397
25°	2368	2368	2399
30°	2348	2362	2400
35°	2319	2353	2408
40°	2282	2348	2428
45°	2243	2345	2472
50°	2179	2354	2528
55°	2100	2383	2599
60°	1995	2410	2656
65°	1843	2439	2691
70°	1638	2457	2408
75°	1320	2208	1927
80°	1032	1548	1258
85°	707	451	321



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.5	3.2
10°-20°	242.6	9.1
20°-30°	369.4	13.8
30°-40°	449.9	16.9
40°-50°	477.3	17.9
50°-60°	450.5	16.9
60°-70°	363.7	13.6
70°-80°	197.3	7.4
80°-90°	31.9	1.2
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°	696.5	26.1
0°-40°	1146.3	43.0
0°-60°	2074.1	77.8
0°-90°	2667.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2667.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	893	893	893	893	893	
5°	893	891	885	891	889	85
15°	860	858	856	862	862	243
25°	798	795	798	806	808	367
35°	706	710	716	731	733	441
45°	589	598	616	639	650	454
55°	448	466	508	541	554	400
65°	289	325	383	414	423	287
75°	127	185	212	192	185	139
85°	23	25	15	12	10	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	893.2	893.2	893.2	893.2	893.2
2.5°	897.4	893.2	887.0	893.2	891.2
5°	893.2	891.2	884.9	891.2	889.1
7.5°	887.0	887.0	880.8	884.9	884.9
10°	880.8	878.7	874.5	880.8	878.7
12.5°	870.3	868.3	866.2	872.4	870.3
15°	859.9	857.8	855.8	862.0	862.0
17.5°	847.4	845.4	843.3	851.6	851.6
20°	830.8	830.8	830.8	839.1	837.0
22.5°	814.1	814.1	816.2	824.5	822.5
25°	797.5	795.4	797.5	805.8	807.9
27.5°	776.6	778.7	780.8	789.1	791.2
30°	755.8	757.9	760.0	770.4	772.5
32.5°	730.8	735.0	739.2	751.7	751.7
35°	705.9	710.0	716.3	730.8	732.9
37.5°	678.8	682.9	691.3	707.9	712.1
40°	649.6	655.9	668.4	685.0	691.3
42.5°	620.5	628.8	643.4	662.1	670.5
45°	589.3	597.6	616.3	639.2	649.6
47.5°	555.9	566.3	589.3	618.4	626.7
50°	520.5	535.1	562.2	593.4	603.8
52.5°	485.1	501.8	535.1	568.4	578.8
55°	447.7	466.4	508.0	541.4	553.9
57.5°	410.2	431.0	478.9	514.3	526.8
60°	370.6	395.6	447.7	483.1	493.5
62.5°	331.1	360.2	416.4	451.8	460.2
65°	289.4	324.8	383.1	414.3	422.7
67.5°	249.9	291.5	349.8	372.7	372.7
70°	208.2	254.0	312.3	318.6	306.1
72.5°	166.6	218.6	270.7	247.8	237.4
75°	127.0	185.3	212.4	191.6	185.3
77.5°	95.8	149.9	149.9	137.4	133.3
80°	66.6	114.5	99.9	87.5	81.2
82.5°	43.7	64.5	52.1	41.6	35.4
85°	22.9	25.0	14.6	12.5	10.4
87.5°	8.3	4.2	2.1	4.2	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)