

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: P312119

Luminaire Tested: **14FCZ2-44-UNV-L83050-RDP-CA08-W2A-U-5000K**

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: P312119
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-5000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.08" ACRYLIC SHEET
Light Source: (168) 5000K 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: 2827.0 lumens
Efficiency: N/A
Efficacy: 70.3 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

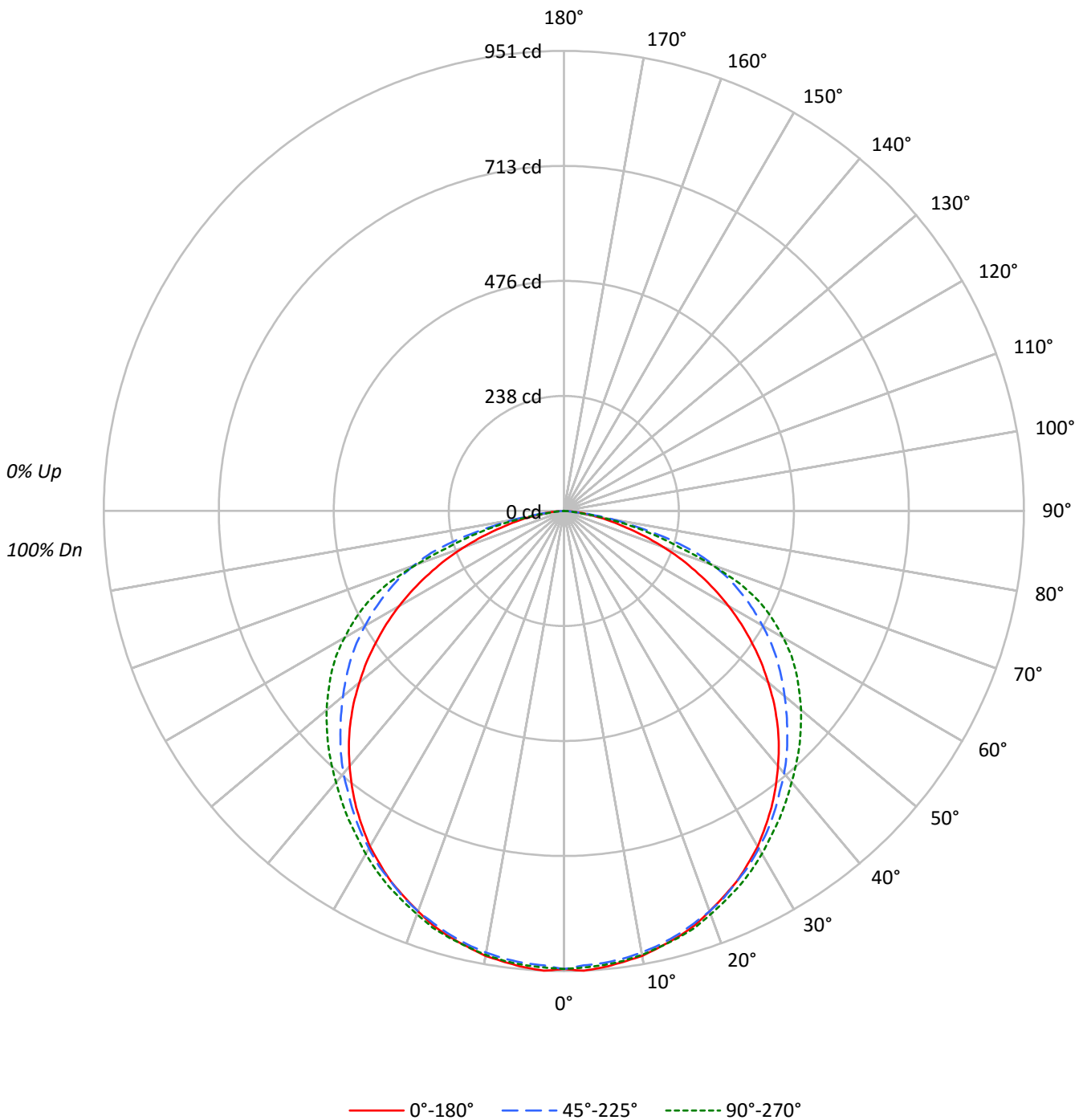
Input Watts (W): 40.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2548	2548	2548
5°	2558	2534	2546
10°	2551	2533	2545
15°	2539	2527	2545
20°	2522	2522	2541
25°	2510	2510	2542
30°	2490	2503	2544
35°	2458	2494	2552
40°	2419	2489	2574
45°	2377	2486	2621
50°	2310	2495	2680
55°	2226	2526	2754
60°	2115	2554	2815
65°	1954	2586	2853
70°	1736	2605	2552
75°	1399	2340	2042
80°	1094	1641	1334
85°	750	475	340



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.6	3.2
10°-20°	257.1	9.1
20°-30°	391.5	13.8
30°-40°	476.9	16.9
40°-50°	505.9	17.9
50°-60°	477.5	16.9
60°-70°	385.5	13.6
70°-80°	209.1	7.4
80°-90°	33.8	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°	738.3	26.1
0°-40°	1215.1	43.0
0°-60°	2198.5	77.8
0°-90°	2827.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2827.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	947	947	947	947	947	
5°	947	945	938	945	942	90
15°	912	909	907	914	914	257
25°	845	843	845	854	856	389
35°	748	753	759	775	777	468
45°	625	633	653	678	689	481
55°	474	494	538	574	587	424
65°	307	344	406	439	448	304
75°	135	196	225	203	196	147
85°	24	26	15	13	11	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	946.8	946.8	946.8	946.8	946.8
2.5°	951.2	946.8	940.2	946.8	944.6
5°	946.8	944.6	938.0	944.6	942.4
7.5°	940.2	940.2	933.6	938.0	938.0
10°	933.6	931.4	927.0	933.6	931.4
12.5°	922.6	920.3	918.1	924.8	922.6
15°	911.5	909.3	907.1	913.7	913.7
17.5°	898.3	896.1	893.9	902.7	902.7
20°	880.6	880.6	880.6	889.5	887.2
22.5°	863.0	863.0	865.2	874.0	871.8
25°	845.3	843.1	845.3	854.1	856.3
27.5°	823.2	825.4	827.7	836.5	838.7
30°	801.2	803.4	805.6	816.6	818.8
32.5°	774.7	779.1	783.5	796.8	796.8
35°	748.2	752.6	759.2	774.7	776.9
37.5°	719.5	723.9	732.7	750.4	754.8
40°	688.6	695.2	708.5	726.1	732.7
42.5°	657.7	666.5	682.0	701.8	710.7
45°	624.6	633.4	653.3	677.6	688.6
47.5°	589.3	600.3	624.6	655.5	664.3
50°	551.8	567.2	595.9	629.0	640.1
52.5°	514.2	531.9	567.2	602.5	613.6
55°	474.5	494.4	538.5	573.8	587.1
57.5°	434.8	456.9	507.6	545.1	558.4
60°	392.9	419.3	474.5	512.0	523.1
62.5°	350.9	381.8	441.4	478.9	487.8
65°	306.8	344.3	406.1	439.2	448.0
67.5°	264.8	309.0	370.8	395.1	395.1
70°	220.7	269.3	331.1	337.7	324.4
72.5°	176.6	231.7	286.9	262.6	251.6
75°	134.6	196.4	225.1	203.1	196.4
77.5°	101.5	158.9	158.9	145.7	141.3
80°	70.6	121.4	105.9	92.7	86.1
82.5°	46.3	68.4	55.2	44.1	37.5
85°	24.3	26.5	15.4	13.2	11.0
87.5°	8.8	4.4	2.2	4.4	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)