

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: P307613

Luminaire Tested: **14FCZ2-29-UNV-L82765-CA08-W2A-U-4000K**

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: P307613
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-29-UNV-L82765-CA08-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 4000K 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: 2797.0 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

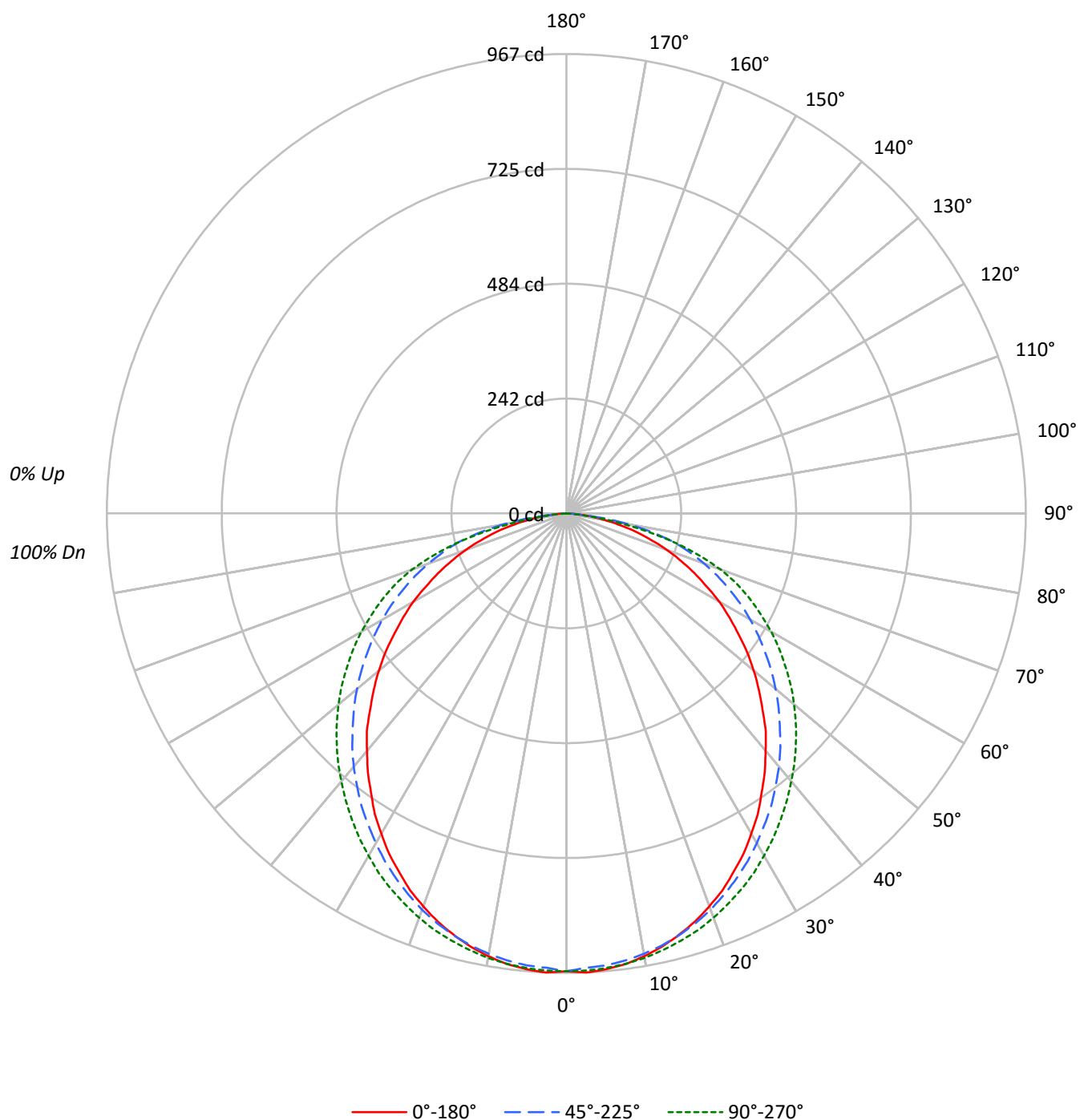
Input Watts (W): 24.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	109	104	99	95	106	101	97	94	97	94	91		93	90	88		83
2	98	90	83	77	96	88	82	76	84	79	74		81	77	73		69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		58
4	82	70	61	54	79	68	60	53	66	58	53		63	57	52		49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		32
8	60	46	37	32	58	45	37	31	44	37	31		43	36	31		29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		26
10	52	39	31	26	51	39	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2593	2593	2593
5°	2601	2579	2595
10°	2585	2572	2596
15°	2557	2559	2594
20°	2520	2542	2593
25°	2472	2517	2591
30°	2418	2490	2585
35°	2354	2469	2584
40°	2292	2445	2588
45°	2222	2418	2601
50°	2157	2407	2619
55°	2075	2399	2642
60°	2000	2404	2679
65°	1898	2411	2720
70°	1781	2429	2718
75°	1615	2451	2458
80°	1323	2117	1750
85°	982	1000	404



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.2	3.3
10°-20°	260.5	9.3
20°-30°	392.4	14.0
30°-40°	470.8	16.8
40°-50°	490.7	17.5
50°-60°	454.3	16.2
60°-70°	367.1	13.1
70°-80°	223.8	8.0
80°-90°	46.2	1.7
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°	744.0	26.6
0°-40°	1214.8	43.4
0°-60°	2159.9	77.2
0°-90°	2797.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2797.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	964	964	964	964	964	
5°	963	960	955	962	960	91
15°	918	919	919	931	931	259
25°	833	838	848	869	872	384
35°	717	728	752	779	786	449
45°	584	601	636	671	684	451
55°	442	465	511	551	563	396
65°	298	327	379	417	427	295
75°	155	190	236	240	236	163
85°	32	47	32	18	13	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	963.6	963.6	963.6	963.6	963.6
2.5°	967.3	964.2	957.3	964.2	963.0
5°	963.0	960.5	954.8	961.7	960.5
7.5°	956.7	954.2	949.2	957.3	956.1
10°	946.1	944.9	941.1	950.5	949.9
12.5°	933.6	933.0	931.1	941.7	941.1
15°	918.0	918.7	918.7	931.1	931.1
17.5°	900.6	901.8	904.3	918.0	919.9
20°	880.0	882.5	887.5	903.1	905.6
22.5°	858.8	860.7	868.2	886.9	889.4
25°	832.6	837.6	847.6	868.8	872.5
27.5°	807.7	812.0	825.7	847.6	853.8
30°	778.3	785.2	801.4	825.1	832.0
32.5°	750.3	757.8	776.5	803.9	810.2
35°	716.6	727.8	751.5	779.0	786.5
37.5°	686.0	696.6	723.5	753.4	762.1
40°	652.4	665.5	696.0	727.8	736.6
42.5°	621.2	633.7	666.7	699.1	711.0
45°	583.8	601.2	635.5	671.1	683.5
47.5°	549.5	566.9	606.2	644.3	655.5
50°	515.2	533.9	575.0	614.3	625.5
52.5°	479.6	499.6	543.8	583.1	596.2
55°	442.2	465.3	511.4	551.3	563.2
57.5°	406.6	430.3	479.6	520.1	532.0
60°	371.7	396.0	446.6	485.2	497.7
62.5°	333.0	361.7	414.1	452.2	461.5
65°	298.1	327.4	378.6	416.6	427.2
67.5°	261.3	293.1	344.3	379.2	389.2
70°	226.4	259.4	308.7	341.1	345.5
72.5°	189.0	222.7	272.5	293.1	293.1
75°	155.3	189.6	235.7	239.5	236.4
77.5°	118.5	156.5	186.5	179.0	171.5
80°	85.4	122.9	136.6	122.9	112.9
82.5°	57.4	89.2	82.3	65.5	58.0
85°	31.8	47.4	32.4	18.1	13.1
87.5°	11.8	10.6	3.1	3.1	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)