

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: P312191

Luminaire Tested: **14FCZ2-29-UNV-L83050-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: P312191
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-L83050-CA08-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 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: 2802.0 lumens
Efficiency: N/A
Efficacy: 117.7 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

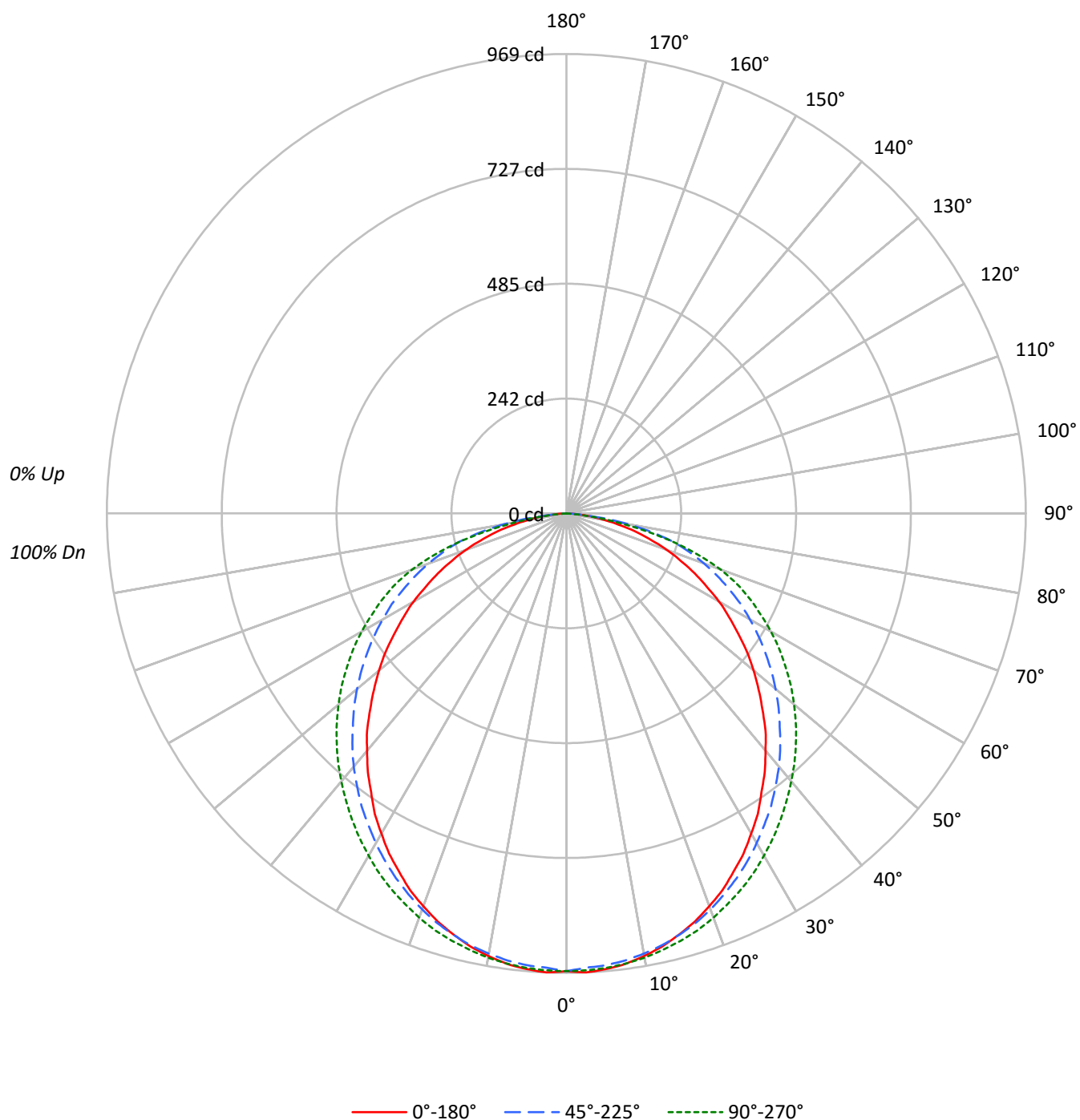
Input Watts (W): 23.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2598	2598	2598
5°	2606	2584	2599
10°	2590	2576	2600
15°	2562	2564	2599
20°	2525	2546	2598
25°	2477	2521	2595
30°	2423	2495	2590
35°	2358	2473	2588
40°	2296	2449	2592
45°	2226	2423	2606
50°	2161	2412	2624
55°	2078	2403	2647
60°	2004	2407	2683
65°	1901	2415	2725
70°	1784	2434	2723
75°	1618	2456	2462
80°	1327	2120	1753
85°	985	1003	404



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.3	3.3
10°-20°	260.9	9.3
20°-30°	393.1	14.0
30°-40°	471.7	16.8
40°-50°	491.6	17.5
50°-60°	455.1	16.2
60°-70°	367.7	13.1
70°-80°	224.2	8.0
80°-90°	46.3	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°	745.3	26.6
0°-40°	1217.0	43.4
0°-60°	2163.8	77.2
0°-90°	2802.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2802.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	965	965	965	965	965	
5°	965	962	957	963	962	92
15°	920	920	920	933	933	259
25°	834	839	849	870	874	384
35°	718	729	753	780	788	450
45°	585	602	637	672	685	452
55°	443	466	512	552	564	397
65°	299	328	379	417	428	295
75°	156	190	236	240	237	163
85°	32	48	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°	965.3	965.3	965.3	965.3	965.3
2.5°	969.0	965.9	959.1	965.9	964.7
5°	964.7	962.2	956.6	963.4	962.2
7.5°	958.4	955.9	950.9	959.1	957.8
10°	947.8	946.6	942.8	952.2	951.6
12.5°	935.3	934.7	932.8	943.4	942.8
15°	919.7	920.3	920.3	932.8	932.8
17.5°	902.2	903.4	905.9	919.7	921.6
20°	881.6	884.1	889.1	904.7	907.2
22.5°	860.3	862.2	869.7	888.4	890.9
25°	834.1	839.1	849.1	870.3	874.1
27.5°	809.1	813.5	827.2	849.1	855.3
30°	779.7	786.6	802.9	826.6	833.5
32.5°	751.6	759.1	777.9	805.4	811.6
35°	717.9	729.1	752.9	780.4	787.9
37.5°	687.3	697.9	724.8	754.7	763.5
40°	653.5	666.6	697.3	729.1	737.9
42.5°	622.3	634.8	667.9	700.4	712.3
45°	584.8	602.3	636.7	672.3	684.8
47.5°	550.4	567.9	607.3	645.4	656.7
50°	516.1	534.8	576.1	615.4	626.7
52.5°	480.5	500.5	544.8	584.2	597.3
55°	443.0	466.1	512.3	552.3	564.2
57.5°	407.4	431.1	480.5	521.1	532.9
60°	372.4	396.7	447.3	486.1	498.6
62.5°	333.6	362.4	414.9	453.0	462.3
65°	298.6	328.0	379.2	417.4	428.0
67.5°	261.8	293.7	344.9	379.9	389.9
70°	226.8	259.9	309.3	341.8	346.1
72.5°	189.3	223.0	273.0	293.7	293.7
75°	155.6	189.9	236.2	239.9	236.8
77.5°	118.7	156.8	186.8	179.3	171.8
80°	85.6	123.1	136.8	123.1	113.1
82.5°	57.5	89.3	82.5	65.6	58.1
85°	31.9	47.5	32.5	18.1	13.1
87.5°	11.9	10.6	3.1	3.1	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)