

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: P307639

Luminaire Tested: **14FCZ2-29-UNV-L82765-CP187-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: P307639
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-CP187-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.187" POLYCARB 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: 2560.0 lumens
Efficiency: N/A
Efficacy: 107.1 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

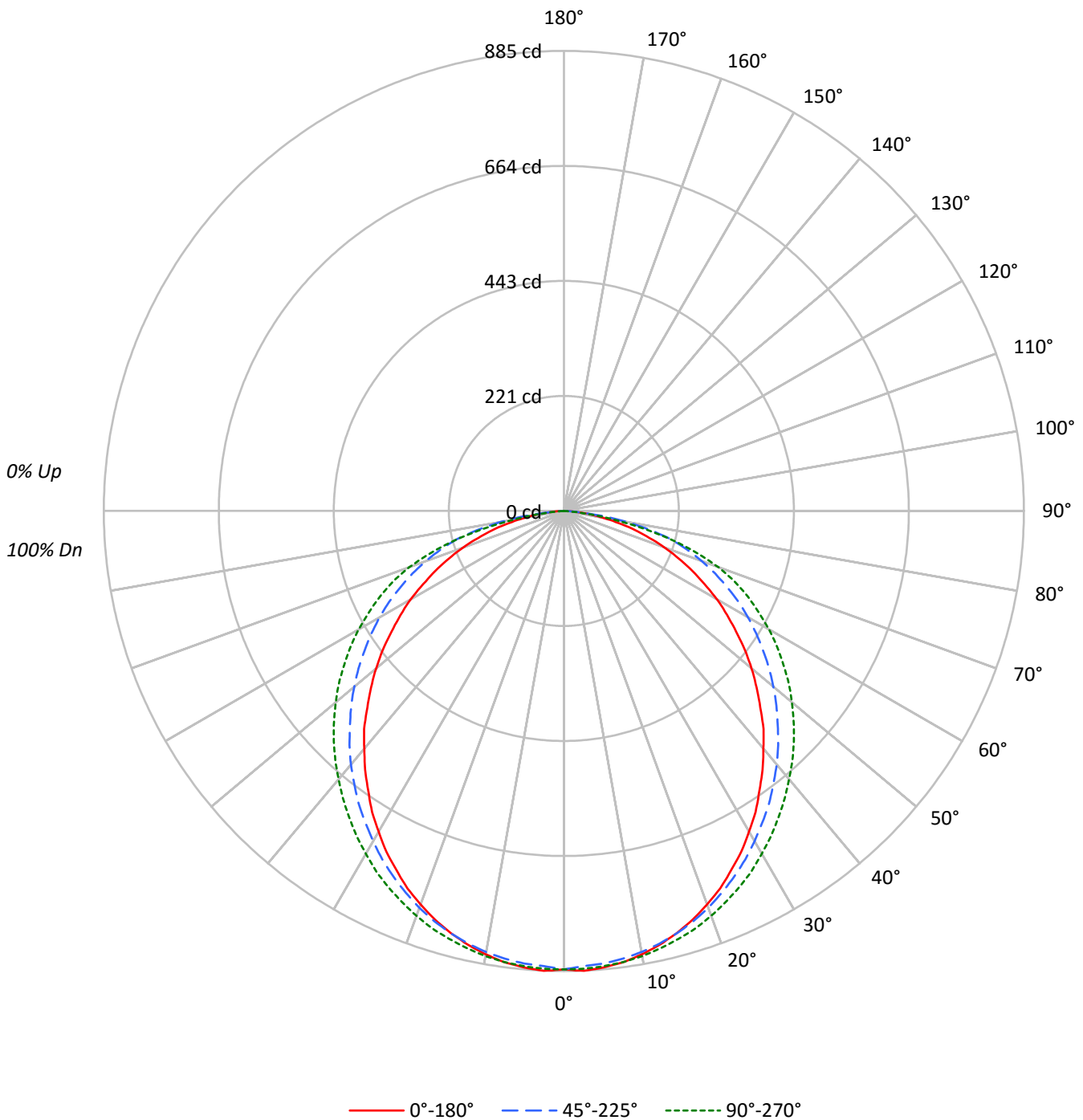
Input Watts (W): 23.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	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	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	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	39	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2373	2373	2373
5°	2381	2361	2375
10°	2366	2354	2376
15°	2341	2342	2374
20°	2306	2326	2373
25°	2263	2303	2371
30°	2214	2279	2366
35°	2155	2259	2365
40°	2098	2238	2368
45°	2033	2214	2381
50°	1974	2203	2397
55°	1899	2196	2419
60°	1831	2200	2451
65°	1738	2206	2490
70°	1630	2223	2488
75°	1477	2244	2249
80°	1212	1937	1601
85°	898	917	371



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.5	3.3
10°-20°	238.4	9.3
20°-30°	359.1	14.0
30°-40°	431.0	16.8
40°-50°	449.2	17.5
50°-60°	415.8	16.2
60°-70°	336.0	13.1
70°-80°	204.9	8.0
80°-90°	42.3	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°	681.0	26.6
0°-40°	1111.9	43.4
0°-60°	1976.9	77.2
0°-90°	2560.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2560.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	882	882	882	882	882	
5°	881	879	874	880	879	84
15°	840	841	841	852	852	237
25°	762	767	776	795	799	351
35°	656	666	688	713	720	411
45°	534	550	582	614	626	413
55°	405	426	468	505	516	363
65°	273	300	346	381	391	270
75°	142	174	216	219	216	149
85°	29	43	30	17	12	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	881.9	881.9	881.9	881.9	881.9
2.5°	885.4	882.5	876.2	882.5	881.4
5°	881.4	879.1	873.9	880.2	879.1
7.5°	875.6	873.4	868.8	876.2	875.1
10°	865.9	864.8	861.4	869.9	869.4
12.5°	854.5	854.0	852.2	861.9	861.4
15°	840.3	840.8	840.8	852.2	852.2
17.5°	824.3	825.4	827.7	840.3	842.0
20°	805.4	807.7	812.3	826.6	828.8
22.5°	786.0	787.7	794.6	811.7	814.0
25°	762.1	766.6	775.8	795.2	798.6
27.5°	739.2	743.2	755.8	775.8	781.5
30°	712.4	718.7	733.5	755.2	761.5
32.5°	686.7	693.6	710.7	735.8	741.5
35°	655.9	666.2	687.8	713.0	719.8
37.5°	627.9	637.6	662.2	689.6	697.6
40°	597.1	609.1	637.0	666.2	674.1
42.5°	568.5	580.0	610.2	639.9	650.7
45°	534.3	550.3	581.7	614.2	625.6
47.5°	502.9	518.9	554.8	589.7	599.9
50°	471.5	488.6	526.3	562.3	572.5
52.5°	439.0	457.2	497.8	533.7	545.7
55°	404.7	425.8	468.1	504.6	515.5
57.5°	372.2	393.9	439.0	476.1	486.9
60°	340.2	362.5	408.7	444.1	455.5
62.5°	304.8	331.1	379.0	413.8	422.4
65°	272.9	299.7	346.5	381.3	391.0
67.5°	239.2	268.3	315.1	347.1	356.2
70°	207.2	237.5	282.6	312.2	316.2
72.5°	173.0	203.8	249.5	268.3	268.3
75°	142.1	173.5	215.8	219.2	216.3
77.5°	108.5	143.3	170.7	163.8	157.0
80°	78.2	112.5	125.0	112.5	103.3
82.5°	52.5	81.6	75.3	59.9	53.1
85°	29.1	43.4	29.7	16.6	12.0
87.5°	10.8	9.7	2.9	2.9	2.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)