

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: P307640

Luminaire Tested: **14FCZ2-29-UNV-L82765-CP187-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: P307640
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-4000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.187" POLYCARB 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: 2617.0 lumens
Efficiency: N/A
Efficacy: 108.6 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

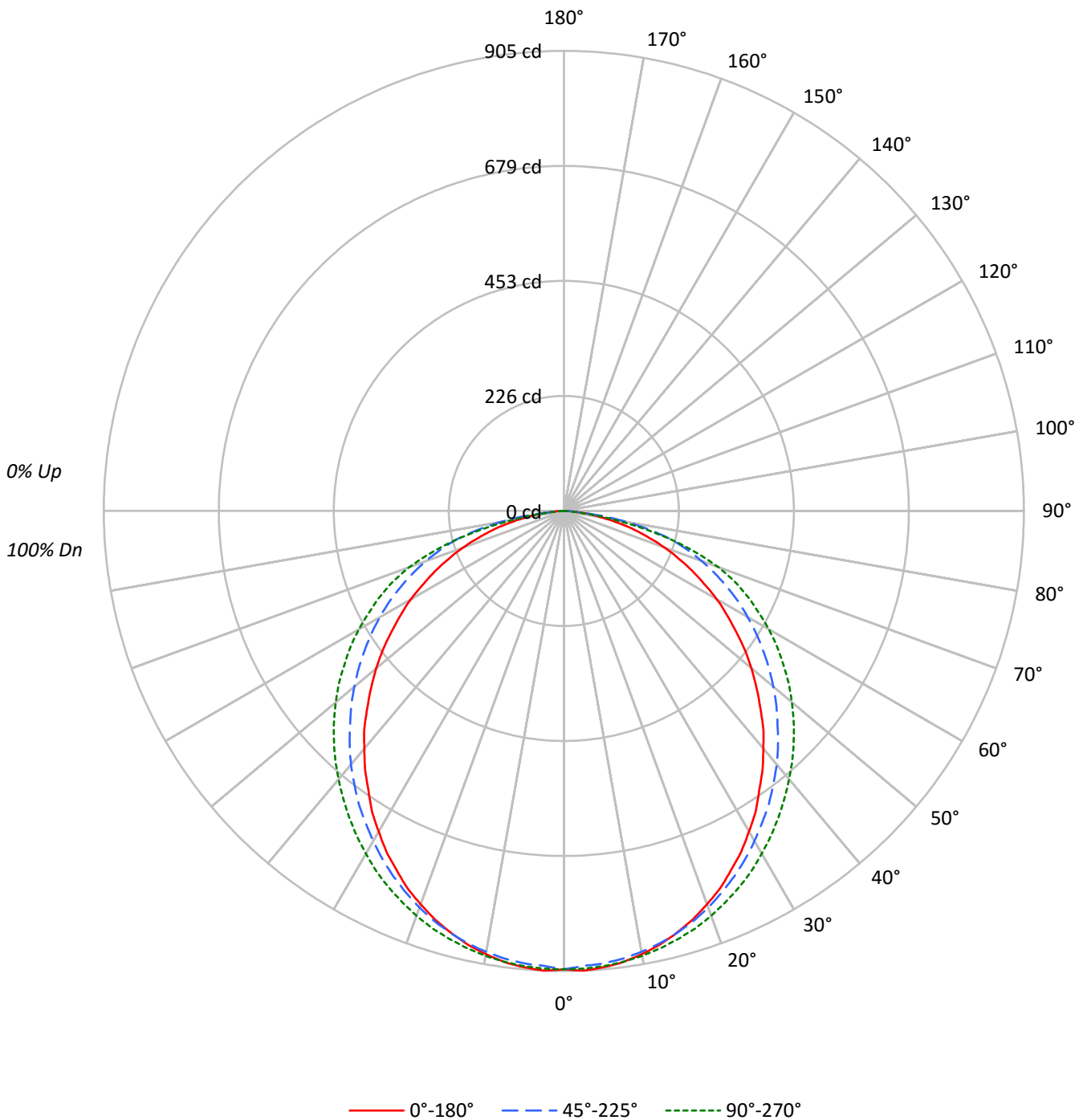
Input Watts (W): 24.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2426	2426	2426
5°	2434	2413	2427
10°	2419	2406	2428
15°	2393	2395	2427
20°	2358	2378	2426
25°	2313	2355	2424
30°	2263	2330	2419
35°	2203	2310	2417
40°	2144	2288	2421
45°	2079	2263	2434
50°	2018	2252	2450
55°	1941	2245	2472
60°	1872	2249	2506
65°	1776	2255	2545
70°	1666	2273	2544
75°	1511	2294	2300
80°	1238	1980	1636
85°	920	936	380



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.3	3.3
10°-20°	243.7	9.3
20°-30°	367.1	14.0
30°-40°	440.5	16.8
40°-50°	459.2	17.5
50°-60°	425.1	16.2
60°-70°	343.5	13.1
70°-80°	209.4	8.0
80°-90°	43.2	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°	696.1	26.6
0°-40°	1136.7	43.4
0°-60°	2020.9	77.2
0°-90°	2617.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2617.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	902	902	902	902	902	
5°	901	899	893	900	899	86
15°	859	860	860	871	871	242
25°	779	784	793	813	816	359
35°	670	681	703	729	736	420
45°	546	562	595	628	640	422
55°	414	435	478	516	527	371
65°	279	306	354	390	400	276
75°	145	177	221	224	221	153
85°	30	44	30	17	12	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	901.6	901.6	901.6	901.6	901.6
2.5°	905.1	902.1	895.7	902.1	901.0
5°	901.0	898.6	893.4	899.8	898.6
7.5°	895.1	892.8	888.1	895.7	894.6
10°	885.2	884.1	880.6	889.3	888.7
12.5°	873.6	873.0	871.2	881.1	880.6
15°	859.0	859.6	859.6	871.2	871.2
17.5°	842.6	843.8	846.1	859.0	860.7
20°	823.4	825.7	830.4	845.0	847.3
22.5°	803.5	805.3	812.3	829.8	832.1
25°	779.0	783.7	793.0	812.9	816.4
27.5°	755.7	759.8	772.6	793.0	798.9
30°	728.3	734.7	749.8	772.0	778.4
32.5°	702.0	709.0	726.5	752.2	758.0
35°	670.5	681.0	703.2	728.8	735.8
37.5°	641.9	651.8	676.9	704.9	713.1
40°	610.4	622.6	651.2	681.0	689.2
42.5°	581.2	592.9	623.8	654.1	665.2
45°	546.2	562.5	594.6	627.9	639.6
47.5°	514.1	530.4	567.2	602.8	613.3
50°	482.0	499.5	538.0	574.8	585.3
52.5°	448.7	467.4	508.8	545.6	557.9
55°	413.7	435.3	478.5	515.8	526.9
57.5°	380.5	402.6	448.7	486.7	497.8
60°	347.8	370.5	417.8	454.0	465.7
62.5°	311.6	338.5	387.5	423.1	431.8
65°	278.9	306.4	354.2	389.8	399.7
67.5°	244.5	274.3	322.1	354.8	364.1
70°	211.8	242.8	288.9	319.2	323.3
72.5°	176.8	208.3	255.0	274.3	274.3
75°	145.3	177.4	220.6	224.1	221.2
77.5°	110.9	146.5	174.5	167.5	160.5
80°	79.9	115.0	127.8	115.0	105.6
82.5°	53.7	83.4	77.0	61.3	54.3
85°	29.8	44.3	30.3	16.9	12.3
87.5°	11.1	9.9	2.9	2.9	2.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)