

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: P307234

Luminaire Tested: **14FCZ2-44-UNV-L82765-HRP-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: P307234
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
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-L82765-HRP-CP187-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. 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: 2881.0 lumens
Efficiency: N/A
Efficacy: 74.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

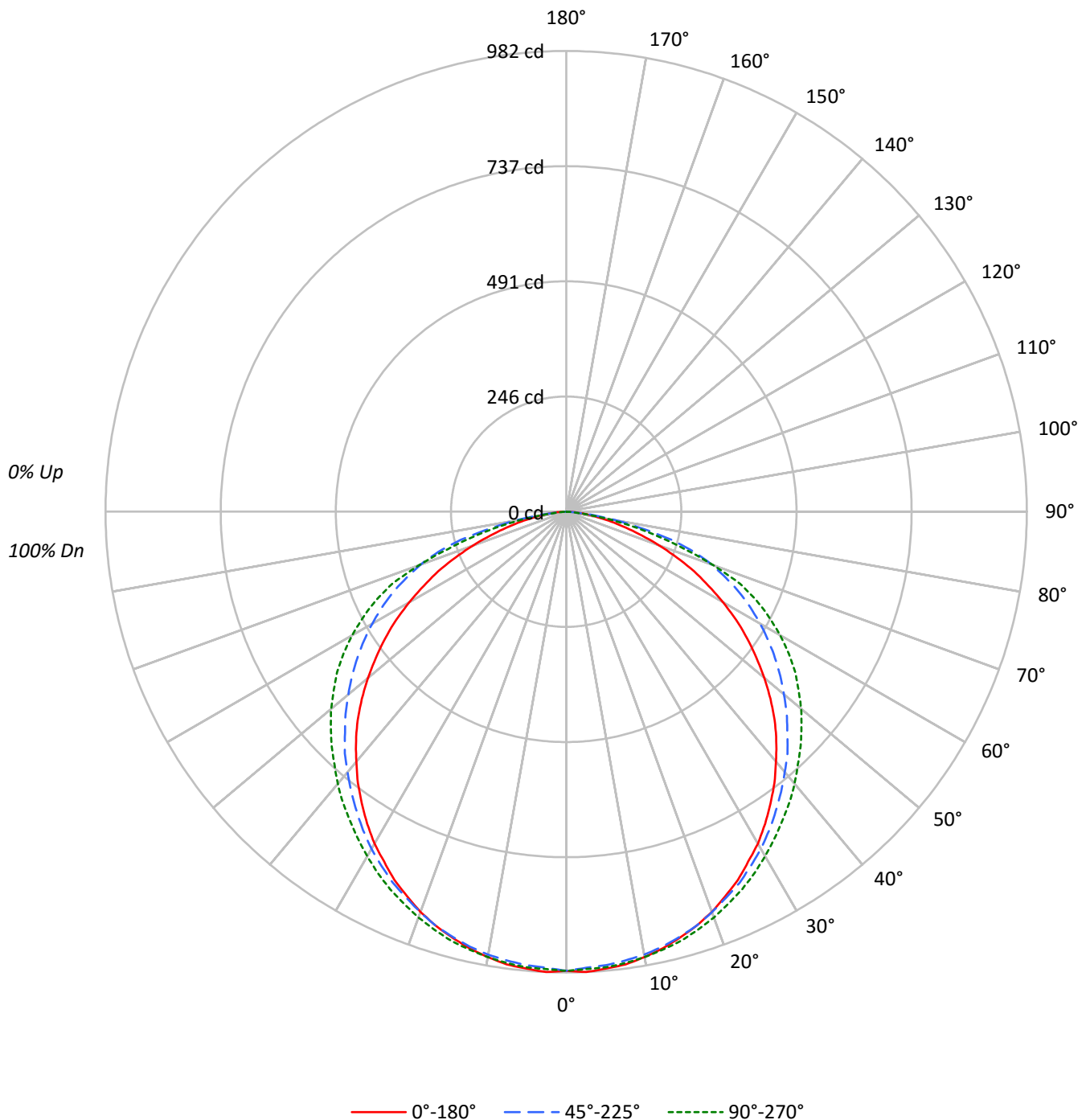
Input Watts (W): 38.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	106	102	98	94	97	94	91		93	91	88		84
2	99	90	83	78	96	88	82	77	85	79	75		82	77	73		69
3	90	79	71	64	87	77	70	64	74	68	62		72	66	61		58
4	82	70	61	54	80	68	60	54	66	59	53		64	57	52		49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		42
6	69	56	47	40	68	55	46	40	53	45	40		51	45	39		37
7	64	51	42	36	63	50	41	35	48	41	35		47	40	35		33
8	60	46	38	32	58	45	37	32	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	38	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2633	2633	2633
5°	2640	2621	2633
10°	2634	2619	2634
15°	2617	2612	2637
20°	2599	2602	2636
25°	2572	2593	2636
30°	2539	2578	2635
35°	2494	2559	2640
40°	2444	2546	2661
45°	2393	2538	2689
50°	2310	2537	2738
55°	2210	2550	2797
60°	2077	2569	2833
65°	1915	2596	2849
70°	1668	2602	2623
75°	1376	2420	2119
80°	1082	1740	1418
85°	840	670	337



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.6	3.2
10°-20°	265.8	9.2
20°-30°	403.6	14.0
30°-40°	489.1	17.0
40°-50°	515.4	17.9
50°-60°	481.1	16.7
60°-70°	384.5	13.3
70°-80°	211.6	7.3
80°-90°	37.4	1.3
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°	762.0	26.5
0°-40°	1251.1	43.4
0°-60°	2247.6	78.0
0°-90°	2881.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2881.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	978	978	978	978	978	
5°	978	975	970	977	975	93
15°	939	939	938	947	947	265
25°	866	868	873	886	888	399
35°	759	766	779	799	804	475
45°	629	640	667	697	707	484
55°	471	495	544	582	596	421
65°	301	339	408	441	448	296
75°	132	189	233	209	204	142
85°	27	34	22	14	11	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	978.4	978.4	978.4	978.4	978.4
2.5°	982.0	979.3	973.0	978.4	975.7
5°	977.5	974.8	970.2	976.6	974.8
7.5°	973.0	969.3	964.8	972.1	970.2
10°	963.9	961.2	958.5	964.8	963.9
12.5°	953.0	952.1	949.4	956.7	955.8
15°	939.4	939.4	937.6	946.7	946.7
17.5°	925.0	924.0	925.0	934.9	934.0
20°	907.7	907.7	908.6	920.4	920.4
22.5°	886.9	887.8	890.5	905.0	904.1
25°	866.1	867.9	873.3	886.0	887.8
27.5°	840.7	845.2	851.6	867.0	868.8
30°	817.1	819.9	829.8	844.3	847.9
32.5°	789.1	794.5	805.4	821.7	826.2
35°	759.2	766.4	779.1	799.0	803.6
37.5°	729.3	735.6	752.8	773.7	781.8
40°	695.8	706.6	724.7	748.3	757.4
42.5°	663.1	674.0	698.5	722.9	731.1
45°	628.7	640.5	666.8	696.7	706.6
47.5°	590.7	604.3	637.8	669.5	680.4
50°	551.7	568.9	606.1	641.4	654.1
52.5°	510.9	532.7	575.3	612.4	624.2
55°	471.1	494.6	543.6	581.6	596.1
57.5°	430.3	455.7	510.9	554.4	562.6
60°	385.9	416.7	477.4	515.5	526.3
62.5°	342.4	377.8	443.0	479.2	488.3
65°	300.8	338.8	407.7	441.2	447.5
67.5°	255.5	300.8	368.7	399.5	401.3
70°	212.0	264.5	330.7	345.2	333.4
72.5°	169.4	225.6	286.3	274.5	264.5
75°	132.3	189.3	232.8	209.3	203.8
77.5°	97.8	154.9	166.7	154.0	144.0
80°	69.8	122.3	112.3	96.0	91.5
82.5°	48.0	77.0	61.6	48.0	41.7
85°	27.2	34.4	21.7	13.6	10.9
87.5°	11.8	8.2	4.5	3.6	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)