

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: P307686

Luminaire Tested: **14FCZ2-35-UNV-L82765-CP187-W2A-U-4500K**

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: P307686
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: 14FCZ2-35-UNV-L82765-CP187-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.187" POLYCARB SHEET
Light Source: (168) 4500K 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: 3202.0 lumens
Efficiency: N/A
Efficacy: 106.4 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

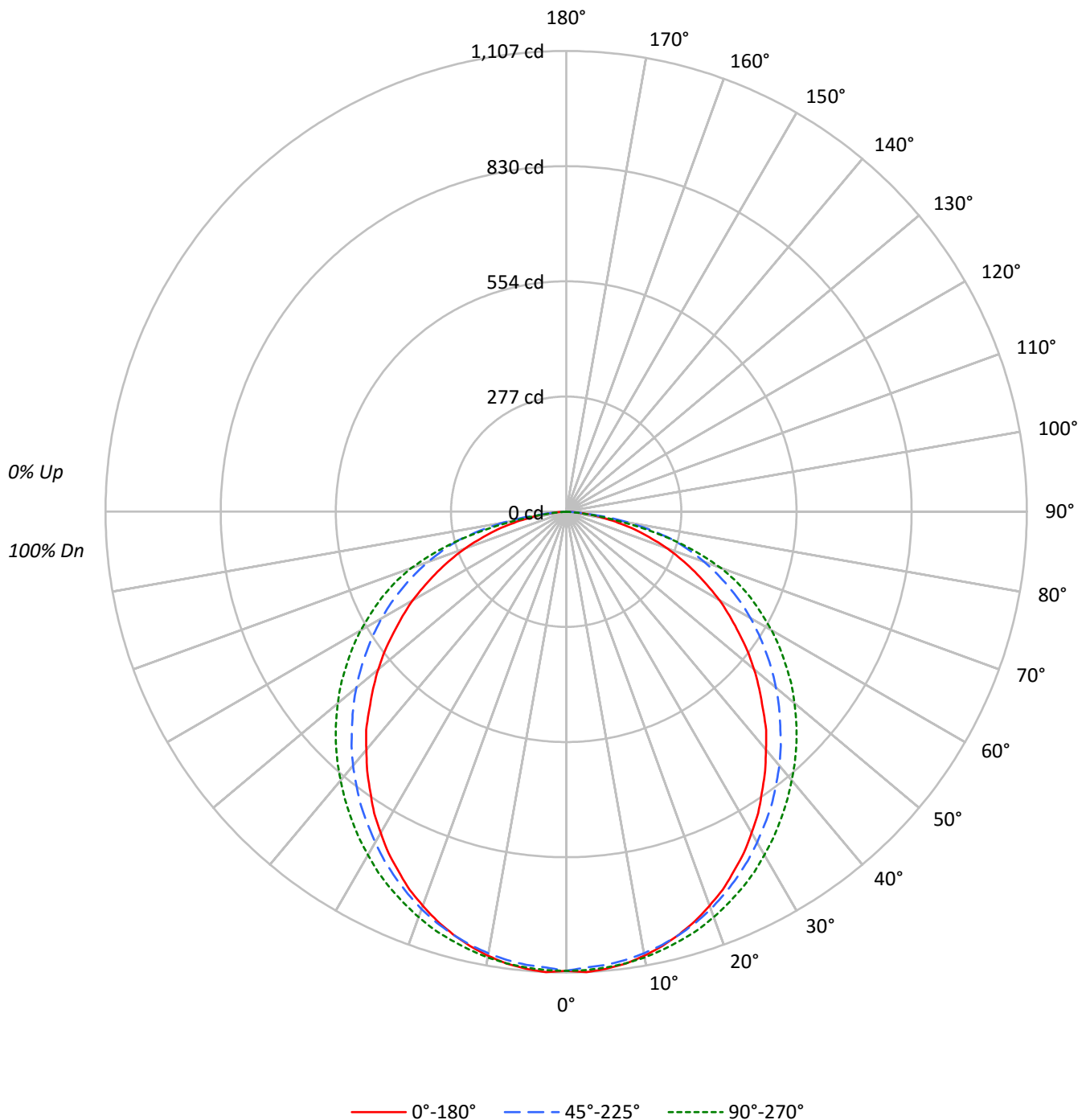
Input Watts (W): 30.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2968	2968	2968
5°	2978	2953	2970
10°	2960	2944	2971
15°	2928	2930	2970
20°	2885	2909	2969
25°	2830	2881	2966
30°	2769	2851	2959
35°	2695	2826	2958
40°	2623	2799	2962
45°	2543	2769	2978
50°	2469	2756	2998
55°	2375	2747	3025
60°	2290	2751	3067
65°	2173	2760	3114
70°	2039	2781	3112
75°	1849	2806	2813
80°	1516	2424	2002
85°	1124	1145	463



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.4	3.3
10°-20°	298.2	9.3
20°-30°	449.2	14.0
30°-40°	539.0	16.8
40°-50°	561.8	17.5
50°-60°	520.1	16.2
60°-70°	420.2	13.1
70°-80°	256.2	8.0
80°-90°	52.9	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°	851.7	26.6
0°-40°	1390.8	43.4
0°-60°	2472.7	77.2
0°-90°	3202.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3202.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1103	1103	1103	1103	1103	
5°	1102	1100	1093	1101	1100	105
15°	1051	1052	1052	1066	1066	296
25°	953	959	970	995	999	439
35°	820	833	860	892	900	514
45°	668	688	728	768	782	517
55°	506	533	586	631	645	454
65°	341	375	433	477	489	337
75°	178	217	270	274	271	187
85°	36	54	37	21	15	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1103.1	1103.1	1103.1	1103.1	1103.1
2.5°	1107.4	1103.8	1096.0	1103.8	1102.4
5°	1102.4	1099.5	1093.1	1101.0	1099.5
7.5°	1095.2	1092.4	1086.7	1096.0	1094.5
10°	1083.1	1081.7	1077.4	1088.1	1087.4
12.5°	1068.8	1068.1	1066.0	1078.1	1077.4
15°	1051.0	1051.7	1051.7	1066.0	1066.0
17.5°	1031.0	1032.4	1035.3	1051.0	1053.1
20°	1007.4	1010.3	1016.0	1033.8	1036.7
22.5°	983.2	985.3	993.9	1015.3	1018.1
25°	953.2	958.9	970.3	994.6	998.9
27.5°	924.6	929.6	945.3	970.3	977.4
30°	891.0	898.9	917.5	944.6	952.4
32.5°	858.9	867.5	888.9	920.3	927.5
35°	820.4	833.2	860.3	891.8	900.3
37.5°	785.4	797.5	828.2	862.5	872.5
40°	746.8	761.8	796.8	833.2	843.2
42.5°	711.1	725.4	763.2	800.4	813.9
45°	668.3	688.3	727.5	768.2	782.5
47.5°	629.0	649.0	694.0	737.5	750.4
50°	589.7	611.2	658.3	703.3	716.1
52.5°	549.1	571.9	622.6	667.6	682.6
55°	506.2	532.6	585.5	631.2	644.7
57.5°	465.5	492.6	549.1	595.5	609.0
60°	425.5	453.4	511.2	555.5	569.8
62.5°	381.3	414.1	474.1	517.6	528.3
65°	341.3	374.8	433.4	476.9	489.1
67.5°	299.2	335.6	394.1	434.1	445.5
70°	259.2	297.0	353.4	390.5	395.5
72.5°	216.3	254.9	312.0	335.6	335.6
75°	177.8	217.0	269.9	274.2	270.6
77.5°	135.7	179.2	213.5	204.9	196.3
80°	97.8	140.7	156.4	140.7	129.2
82.5°	65.7	102.1	94.2	75.0	66.4
85°	36.4	54.3	37.1	20.7	15.0
87.5°	13.6	12.1	3.6	3.6	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)