

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: P312230

Luminaire Tested: **14FCZ2-35-UNV-L83050-CP187-W2A-U-3000K**

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: P312230
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-L83050-CP187-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.187" POLYCARB SHEET
Light Source: (168) 3000K 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: 2979.0 lumens
Efficiency: N/A
Efficacy: 101.3 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

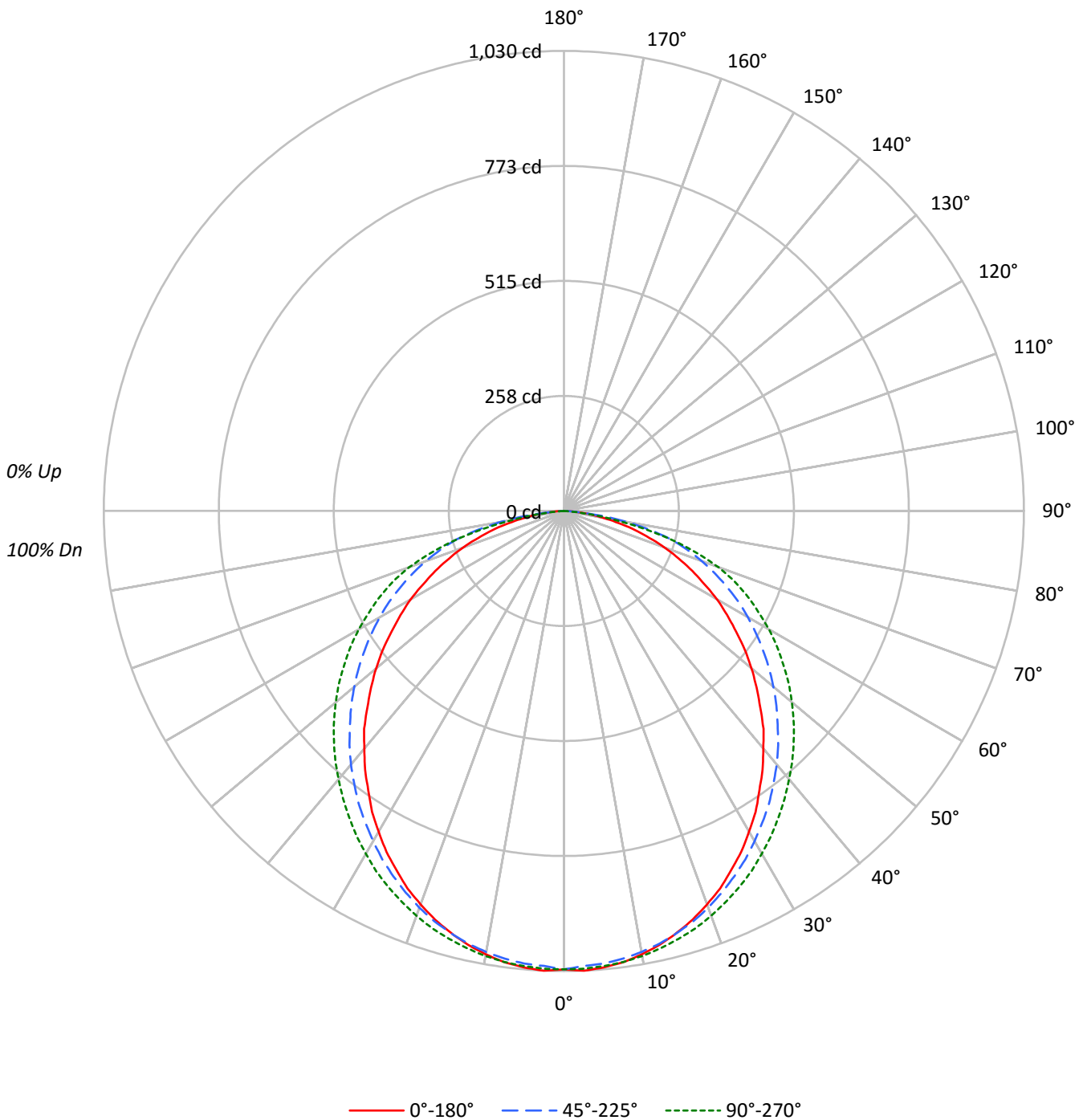
Input Watts (W): 29.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2762	2762	2762
5°	2770	2747	2763
10°	2754	2739	2764
15°	2724	2726	2763
20°	2684	2707	2762
25°	2633	2680	2759
30°	2576	2652	2753
35°	2507	2629	2752
40°	2441	2604	2756
45°	2366	2576	2770
50°	2297	2564	2789
55°	2210	2556	2814
60°	2131	2560	2853
65°	2022	2567	2897
70°	1897	2587	2895
75°	1720	2611	2618
80°	1410	2255	1863
85°	1047	1065	429



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.1	3.3
10°-20°	277.4	9.3
20°-30°	417.9	14.0
30°-40°	501.5	16.8
40°-50°	522.7	17.5
50°-60°	483.9	16.2
60°-70°	391.0	13.1
70°-80°	238.4	8.0
80°-90°	49.2	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°	792.4	26.6
0°-40°	1293.9	43.4
0°-60°	2300.4	77.2
0°-90°	2979.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2979.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1026	1026	1026	1026	1026	
5°	1026	1023	1017	1024	1023	97
15°	978	978	978	992	992	276
25°	887	892	903	925	929	409
35°	763	775	800	830	838	478
45°	622	640	677	715	728	481
55°	471	496	545	587	600	422
65°	318	349	403	444	455	314
75°	165	202	251	255	252	174
85°	34	50	34	19	14	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1026.3	1026.3	1026.3	1026.3	1026.3
2.5°	1030.3	1026.9	1019.6	1026.9	1025.6
5°	1025.6	1023.0	1017.0	1024.3	1023.0
7.5°	1019.0	1016.3	1011.0	1019.6	1018.3
10°	1007.7	1006.3	1002.4	1012.3	1011.7
12.5°	994.4	993.7	991.7	1003.0	1002.4
15°	977.8	978.4	978.4	991.7	991.7
17.5°	959.2	960.5	963.2	977.8	979.8
20°	937.3	939.9	945.2	961.8	964.5
22.5°	914.7	916.7	924.6	944.6	947.2
25°	886.8	892.1	902.7	925.3	929.3
27.5°	860.2	864.9	879.5	902.7	909.4
30°	829.0	836.3	853.6	878.8	886.1
32.5°	799.1	807.1	827.0	856.2	862.9
35°	763.2	775.2	800.4	829.7	837.6
37.5°	730.7	742.0	770.5	802.4	811.7
40°	694.8	708.8	741.3	775.2	784.5
42.5°	661.6	674.9	710.1	744.6	757.3
45°	621.7	640.3	676.9	714.7	728.0
47.5°	585.2	603.8	645.7	686.2	698.1
50°	548.7	568.6	612.4	654.3	666.2
52.5°	510.8	532.1	579.2	621.1	635.0
55°	471.0	495.5	544.7	587.2	599.8
57.5°	433.1	458.3	510.8	554.0	566.6
60°	395.9	421.8	475.6	516.8	530.1
62.5°	354.7	385.3	441.1	481.6	491.5
65°	317.5	348.7	403.2	443.7	455.0
67.5°	278.3	312.2	366.7	403.9	414.5
70°	241.1	276.3	328.8	363.3	368.0
72.5°	201.3	237.1	290.3	312.2	312.2
75°	165.4	201.9	251.1	255.1	251.8
77.5°	126.2	166.7	198.6	190.6	182.7
80°	91.0	130.9	145.5	130.9	120.2
82.5°	61.1	95.0	87.7	69.7	61.8
85°	33.9	50.5	34.5	19.3	13.9
87.5°	12.6	11.3	3.3	3.3	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)