

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: P312381

Luminaire Tested: **14FCZ2-35-UNV-L83050-S-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: P312381  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)  
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-S-CP187-W2A-U-3500K  
Description: 1'X4' TROFFER LED MODULE,SMOOTH 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: 3185.0 lumens  
Efficiency: N/A  
Efficacy: 108.0 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

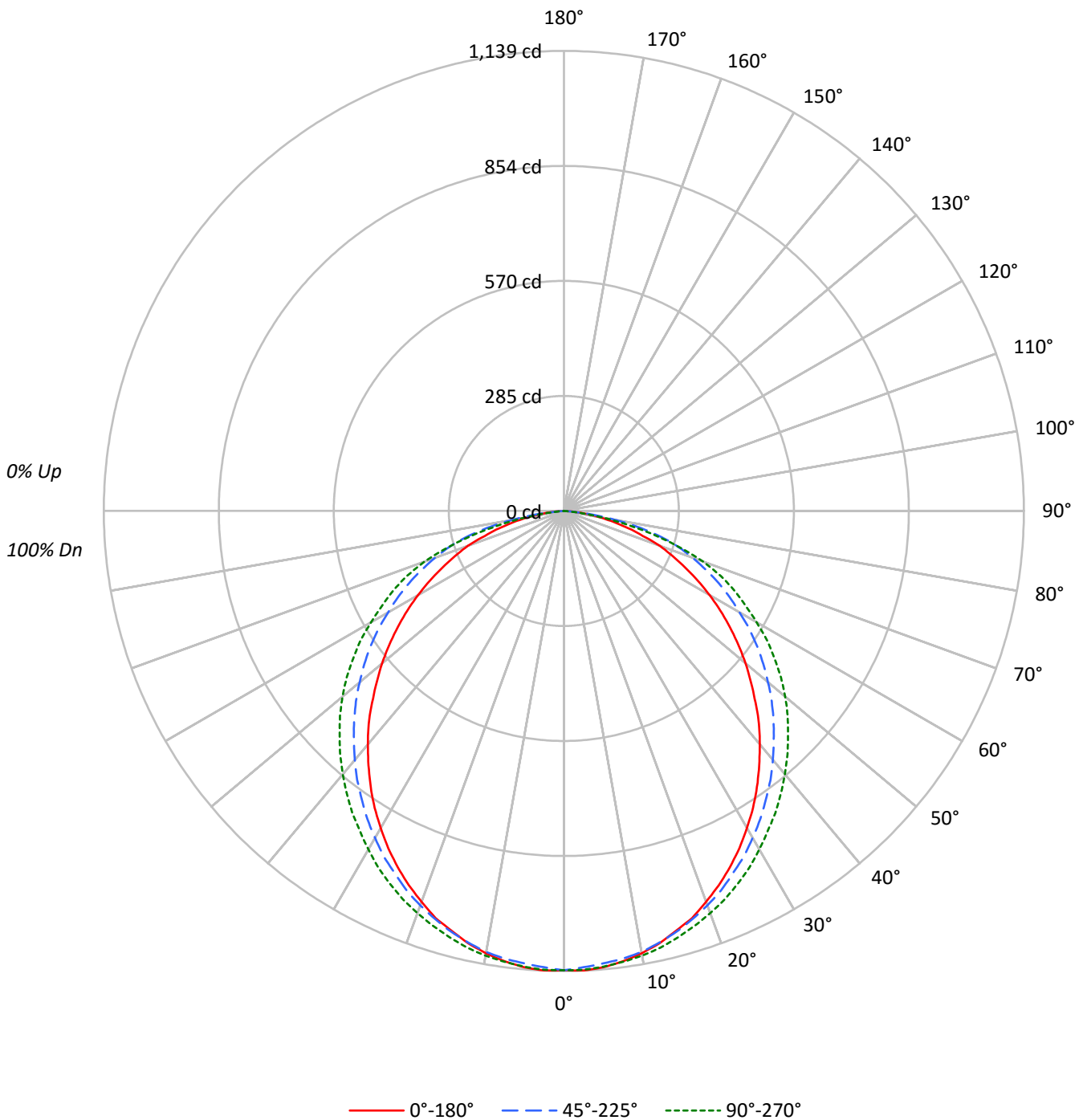
Input Watts (W): 29.5  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3060	3060	3060
5°	3063	3037	3059
10°	3038	3029	3055
15°	2996	3005	3044
20°	2948	2976	3034
25°	2888	2940	3024
30°	2816	2905	3008
35°	2739	2864	2999
40°	2651	2829	2990
45°	2554	2794	2987
50°	2459	2763	2995
55°	2356	2741	2986
60°	2244	2703	2966
65°	2111	2695	2967
70°	1988	2671	2883
75°	1724	2611	2463
80°	1395	2104	1640
85°	926	732	488



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.4	3.4
10°-20°	305.5	9.6
20°-30°	458.3	14.4
30°-40°	546.7	17.2
40°-50°	565.2	17.7
50°-60°	516.0	16.2
60°-70°	406.1	12.7
70°-80°	236.4	7.4
80°-90°	43.5	1.4
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°	871.2	27.4
0°-40°	1417.9	44.5
0°-60°	2499.0	78.5
0°-90°	3185.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3185.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1137	1137	1137	1137	1137	
5°	1134	1131	1124	1134	1132	107
15°	1075	1077	1079	1093	1093	303
25°	973	978	990	1014	1019	448
35°	834	845	872	905	913	521
45°	671	693	734	775	785	518
55°	502	529	584	627	636	449
65°	332	366	423	456	466	329
75°	166	205	251	246	237	176
85°	30	43	24	19	16	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1137.0	1137.0	1137.0	1137.0	1137.0
2.5°	1138.6	1135.4	1130.7	1138.6	1137.0
5°	1133.8	1130.7	1124.4	1133.8	1132.3
7.5°	1124.4	1121.2	1118.0	1127.5	1125.9
10°	1111.7	1110.1	1108.6	1119.6	1118.0
12.5°	1095.9	1095.9	1094.4	1107.0	1107.0
15°	1075.4	1077.0	1078.6	1092.8	1092.8
17.5°	1056.5	1054.9	1059.6	1075.4	1077.0
20°	1029.6	1032.8	1039.1	1058.0	1059.6
22.5°	1002.8	1005.9	1017.0	1035.9	1040.7
25°	972.8	977.5	990.1	1013.8	1018.6
27.5°	941.2	947.5	964.9	990.1	994.9
30°	906.4	915.9	934.9	963.3	968.0
32.5°	871.7	881.2	904.9	933.3	939.6
35°	833.8	844.8	871.7	904.9	912.8
37.5°	794.3	808.5	840.1	873.3	882.7
40°	754.8	770.6	805.4	840.1	851.2
42.5°	715.4	731.1	769.0	808.5	819.6
45°	671.1	693.2	734.3	775.4	784.8
47.5°	628.5	652.2	698.0	739.0	751.7
50°	587.4	611.1	660.1	702.7	715.4
52.5°	544.8	570.1	622.2	666.4	677.5
55°	502.2	529.0	584.3	626.9	636.4
57.5°	459.5	488.0	544.8	585.9	596.9
60°	416.9	446.9	502.2	543.2	551.1
62.5°	374.3	405.8	462.7	499.0	506.9
65°	331.6	366.4	423.2	456.4	465.9
67.5°	290.6	325.3	380.6	412.2	420.1
70°	252.7	284.2	339.5	363.2	366.4
72.5°	205.3	244.8	298.5	311.1	303.2
75°	165.8	205.3	251.1	246.3	236.9
77.5°	126.3	165.8	195.8	180.0	167.4
80°	90.0	129.5	135.8	112.1	105.8
82.5°	58.4	90.0	75.8	58.4	47.4
85°	30.0	42.6	23.7	18.9	15.8
87.5°	9.5	6.3	3.2	3.2	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)