

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: P312226

Luminaire Tested: **14FCZ2-35-UNV-L83050-CP125-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: P312226  
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-CP125-W2A-U-3500K  
Description: 1'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" 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: 3291.0 lumens  
Efficiency: N/A  
Efficacy: 111.6 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

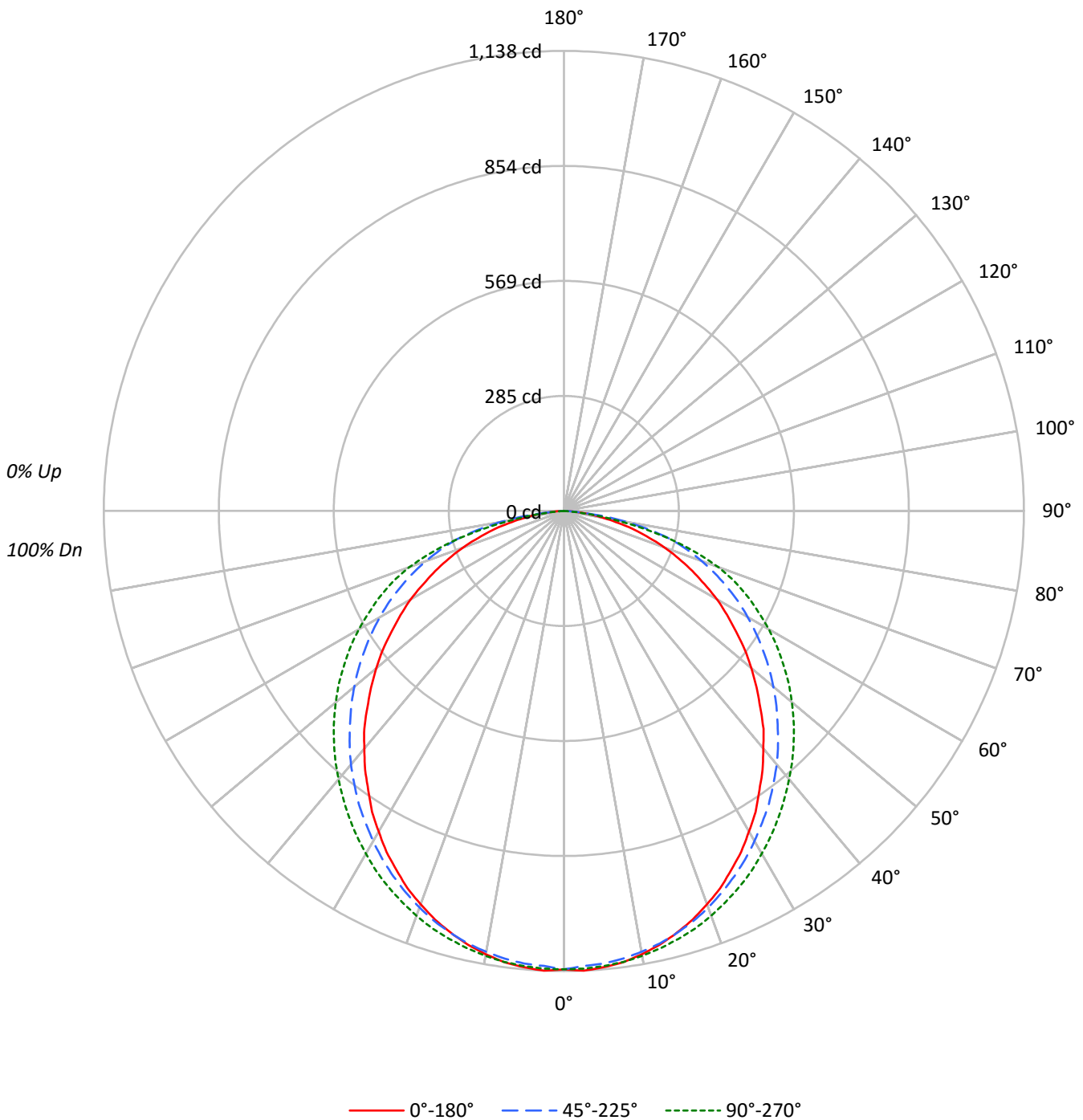
Input Watts (W): 29.5  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	3051	3051	3051
5°	3061	3035	3053
10°	3042	3026	3054
15°	3009	3011	3052
20°	2965	2990	3051
25°	2909	2961	3048
30°	2846	2930	3042
35°	2770	2905	3040
40°	2696	2877	3044
45°	2614	2846	3061
50°	2537	2833	3081
55°	2441	2823	3109
60°	2354	2828	3152
65°	2234	2836	3201
70°	2096	2858	3198
75°	1900	2884	2891
80°	1557	2490	2058
85°	1155	1179	475



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.3	3.3
10°-20°	306.5	9.3
20°-30°	461.7	14.0
30°-40°	554.0	16.8
40°-50°	577.4	17.5
50°-60°	534.5	16.2
60°-70°	431.9	13.1
70°-80°	263.3	8.0
80°-90°	54.4	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°	875.4	26.6
0°-40°	1429.4	43.4
0°-60°	2541.4	77.2
0°-90°	3291.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3291.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1134	1134	1134	1134	1134	
5°	1133	1130	1124	1132	1130	108
15°	1080	1081	1081	1096	1096	304
25°	980	986	997	1022	1027	452
35°	843	856	884	916	925	528
45°	687	707	748	790	804	531
55°	520	547	602	649	663	466
65°	351	385	445	490	503	347
75°	183	223	277	282	278	192
85°	37	56	38	21	15	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1133.8	1133.8	1133.8	1133.8	1133.8
2.5°	1138.2	1134.5	1126.4	1134.5	1133.0
5°	1133.0	1130.1	1123.5	1131.6	1130.1
7.5°	1125.7	1122.8	1116.9	1126.4	1125.0
10°	1113.2	1111.7	1107.3	1118.3	1117.6
12.5°	1098.5	1097.8	1095.6	1108.1	1107.3
15°	1080.2	1080.9	1080.9	1095.6	1095.6
17.5°	1059.6	1061.1	1064.0	1080.2	1082.4
20°	1035.4	1038.4	1044.2	1062.6	1065.5
22.5°	1010.5	1012.7	1021.5	1043.5	1046.4
25°	979.7	985.5	997.3	1022.2	1026.6
27.5°	950.3	955.4	971.6	997.3	1004.6
30°	915.8	923.9	943.0	970.9	978.9
32.5°	882.8	891.6	913.6	945.9	953.2
35°	843.2	856.4	884.3	916.5	925.4
37.5°	807.2	819.7	851.2	886.5	896.7
40°	767.6	783.0	818.9	856.4	866.6
42.5°	730.9	745.6	784.5	822.6	836.6
45°	686.9	707.4	747.8	789.6	804.3
47.5°	646.5	667.0	713.3	758.0	771.3
50°	606.1	628.2	676.6	722.8	736.0
52.5°	564.3	587.8	639.9	686.1	701.5
55°	520.3	547.4	601.7	648.7	662.6
57.5°	478.5	506.3	564.3	612.0	626.0
60°	437.4	466.0	525.4	570.9	585.6
62.5°	391.9	425.6	487.3	532.0	543.0
65°	350.8	385.3	445.4	490.2	502.7
67.5°	307.5	344.9	405.1	446.2	457.9
70°	266.4	305.3	363.2	401.4	406.5
72.5°	222.3	262.0	320.7	344.9	344.9
75°	182.7	223.1	277.4	281.8	278.1
77.5°	139.4	184.2	219.4	210.6	201.8
80°	100.5	144.6	160.7	144.6	132.8
82.5°	67.5	104.9	96.9	77.1	68.2
85°	37.4	55.8	38.2	21.3	15.4
87.5°	13.9	12.5	3.7	3.7	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)