

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: P312236

Luminaire Tested: **14FCZ2-35-UNV-L83050-CP250-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: P312236  
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-CP250-W2A-U-3500K  
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.250" 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**

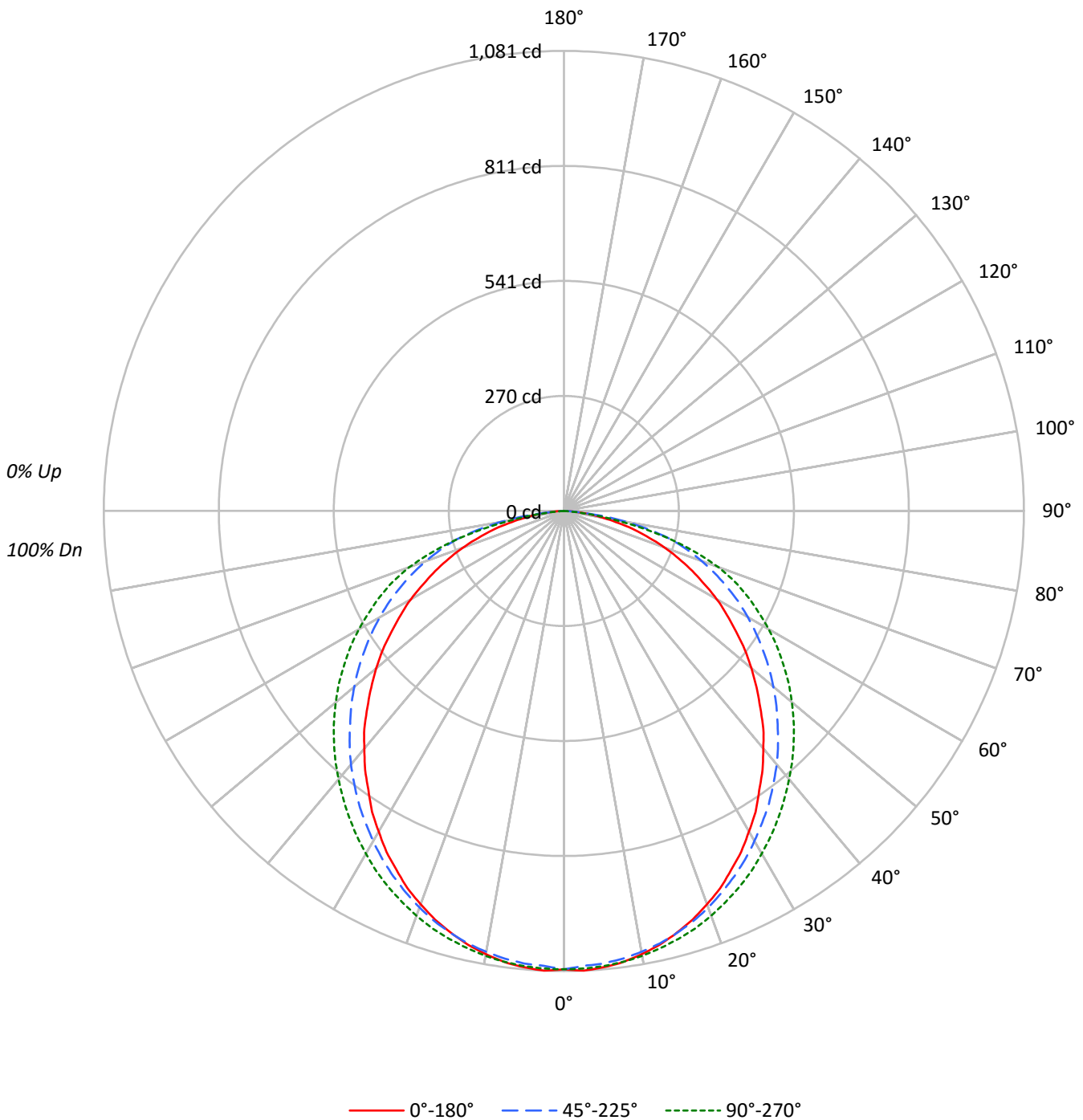
Lumens per Lamp: N/A  
Luminaire Lumens: 3126.0 lumens  
Efficiency: N/A  
Efficacy: 106.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 29.5  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2898	2898	2898
5°	2907	2883	2900
10°	2889	2874	2901
15°	2858	2860	2899
20°	2816	2840	2898
25°	2763	2813	2896
30°	2703	2783	2889
35°	2631	2759	2888
40°	2561	2733	2892
45°	2483	2703	2907
50°	2410	2691	2927
55°	2319	2682	2953
60°	2236	2686	2993
65°	2122	2694	3040
70°	1991	2714	3039
75°	1805	2740	2747
80°	1480	2366	1956
85°	1096	1118	451



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.9	3.3
10°-20°	291.1	9.3
20°-30°	438.5	14.0
30°-40°	526.2	16.8
40°-50°	548.5	17.5
50°-60°	507.8	16.2
60°-70°	410.2	13.1
70°-80°	250.1	8.0
80°-90°	51.6	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°	831.5	26.6
0°-40°	1357.7	43.4
0°-60°	2414.0	77.2
0°-90°	3126.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3126.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1077	1077	1077	1077	1077	
5°	1076	1073	1067	1075	1073	102
15°	1026	1027	1027	1041	1041	289
25°	930	936	947	971	975	429
35°	801	813	840	871	879	502
45°	652	672	710	750	764	504
55°	494	520	572	616	629	443
65°	333	366	423	466	478	329
75°	174	212	264	268	264	182
85°	36	53	36	20	15	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1076.9	1076.9	1076.9	1076.9	1076.9
2.5°	1081.1	1077.6	1069.9	1077.6	1076.2
5°	1076.2	1073.4	1067.2	1074.8	1073.4
7.5°	1069.2	1066.5	1060.9	1069.9	1068.6
10°	1057.4	1056.0	1051.8	1062.3	1061.6
12.5°	1043.5	1042.8	1040.7	1052.5	1051.8
15°	1026.0	1026.7	1026.7	1040.7	1040.7
17.5°	1006.5	1007.9	1010.7	1026.0	1028.1
20°	983.5	986.3	991.9	1009.3	1012.1
22.5°	959.8	961.9	970.3	991.2	994.0
25°	930.5	936.1	947.3	971.0	975.2
27.5°	902.7	907.5	922.9	947.3	954.2
30°	869.9	877.6	895.7	922.2	929.8
32.5°	838.5	846.9	867.8	898.5	905.4
35°	800.9	813.4	839.9	870.6	879.0
37.5°	766.7	778.6	808.6	842.0	851.8
40°	729.1	743.7	777.9	813.4	823.2
42.5°	694.2	708.2	745.1	781.4	794.6
45°	652.4	671.9	710.3	750.0	763.9
47.5°	614.1	633.6	677.5	720.0	732.6
50°	575.7	596.7	642.7	686.6	699.1
52.5°	536.0	558.3	607.8	651.7	666.4
55°	494.2	520.0	571.6	616.2	629.4
57.5°	454.5	481.0	536.0	581.3	594.6
60°	415.4	442.6	499.1	542.3	556.2
62.5°	372.2	404.3	462.8	505.3	515.8
65°	333.2	365.9	423.1	465.6	477.5
67.5°	292.1	327.6	384.8	423.8	434.9
70°	253.0	290.0	345.0	381.3	386.2
72.5°	211.2	248.8	304.6	327.6	327.6
75°	173.6	211.9	263.5	267.7	264.2
77.5°	132.4	175.0	208.4	200.0	191.7
80°	95.5	137.3	152.7	137.3	126.2
82.5°	64.1	99.7	92.0	73.2	64.8
85°	35.5	53.0	36.2	20.2	14.6
87.5°	13.2	11.8	3.5	3.5	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)