

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: P312385

Luminaire Tested: **14FCZ2-35-UNV-L83050-S-CP250-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: P312385
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-CP250-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.250" 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: 2985.0 lumens
Efficiency: N/A
Efficacy: 101.5 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

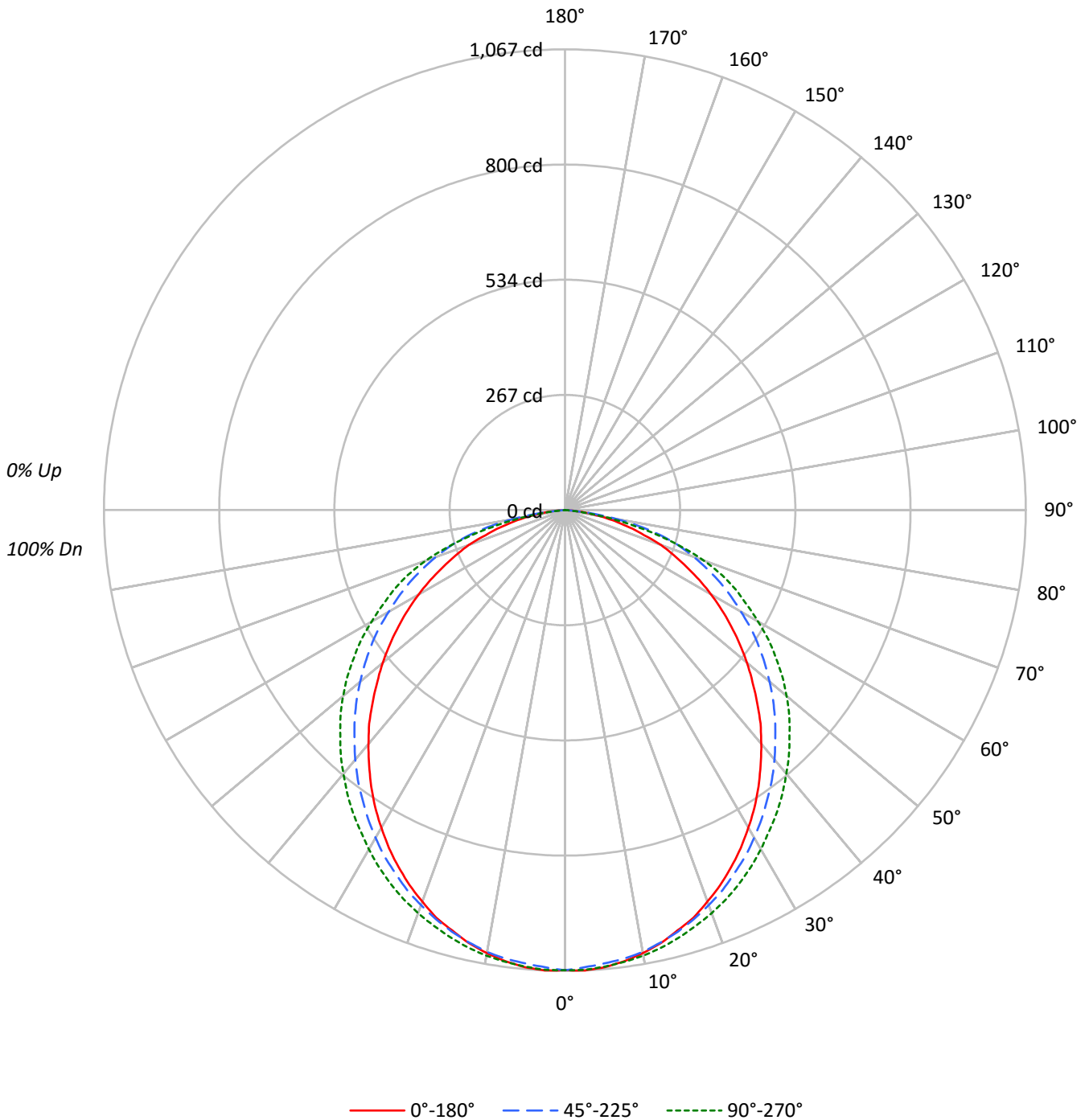
Input Watts (W): 29.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2868	2868	2868
5°	2870	2847	2867
10°	2847	2839	2863
15°	2808	2816	2853
20°	2763	2789	2844
25°	2707	2755	2834
30°	2640	2723	2819
35°	2567	2684	2810
40°	2485	2651	2802
45°	2394	2619	2799
50°	2305	2590	2807
55°	2208	2569	2798
60°	2103	2533	2780
65°	1979	2525	2780
70°	1863	2504	2702
75°	1616	2446	2308
80°	1308	1973	1537
85°	868	685	457



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.6	3.4
10°-20°	286.3	9.6
20°-30°	429.5	14.4
30°-40°	512.4	17.2
40°-50°	529.7	17.7
50°-60°	483.6	16.2
60°-70°	380.6	12.7
70°-80°	221.5	7.4
80°-90°	40.8	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°	816.5	27.4
0°-40°	1328.8	44.5
0°-60°	2342.1	78.5
0°-90°	2985.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2985.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1066	1066	1066	1066	1066	
5°	1063	1060	1054	1063	1061	101
15°	1008	1009	1011	1024	1024	284
25°	912	916	928	950	955	420
35°	781	792	817	848	855	488
45°	629	650	688	727	736	486
55°	471	496	548	588	596	421
65°	311	343	397	428	437	309
75°	155	192	235	231	222	165
85°	28	40	22	18	15	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1065.6	1065.6	1065.6	1065.6	1065.6
2.5°	1067.1	1064.1	1059.7	1067.1	1065.6
5°	1062.6	1059.7	1053.8	1062.6	1061.2
7.5°	1053.8	1050.8	1047.8	1056.7	1055.2
10°	1041.9	1040.4	1039.0	1049.3	1047.8
12.5°	1027.1	1027.1	1025.6	1037.5	1037.5
15°	1007.9	1009.4	1010.8	1024.2	1024.2
17.5°	990.1	988.6	993.1	1007.9	1009.4
20°	965.0	967.9	973.8	991.6	993.1
22.5°	939.8	942.8	953.1	970.9	975.3
25°	911.7	916.1	928.0	950.2	954.6
27.5°	882.1	888.0	904.3	928.0	932.4
30°	849.5	858.4	876.2	902.8	907.2
32.5°	817.0	825.8	848.0	874.7	880.6
35°	781.4	791.8	817.0	848.0	855.4
37.5°	744.4	757.8	787.4	818.4	827.3
40°	707.4	722.2	754.8	787.4	797.7
42.5°	670.4	685.2	720.8	757.8	768.1
45°	629.0	649.7	688.2	726.7	735.6
47.5°	589.0	611.2	654.2	692.6	704.5
50°	550.6	572.8	618.6	658.6	670.4
52.5°	510.6	534.3	583.1	624.6	634.9
55°	470.6	495.8	547.6	587.6	596.4
57.5°	430.7	457.3	510.6	549.1	559.4
60°	390.7	418.8	470.6	509.1	516.5
62.5°	350.8	380.4	433.6	467.7	475.1
65°	310.8	343.4	396.6	427.7	436.6
67.5°	272.3	304.9	356.7	386.3	393.7
70°	236.8	266.4	318.2	340.4	343.4
72.5°	192.4	229.4	279.7	291.6	284.2
75°	155.4	192.4	235.3	230.9	222.0
77.5°	118.4	155.4	183.5	168.7	156.9
80°	84.4	121.4	127.3	105.1	99.2
82.5°	54.8	84.4	71.0	54.8	44.4
85°	28.1	40.0	22.2	17.8	14.8
87.5°	8.9	5.9	3.0	3.0	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)