

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: P312310

Luminaire Tested: **14FCZ2-20-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: P312310  
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: 14FCZ2-20-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**

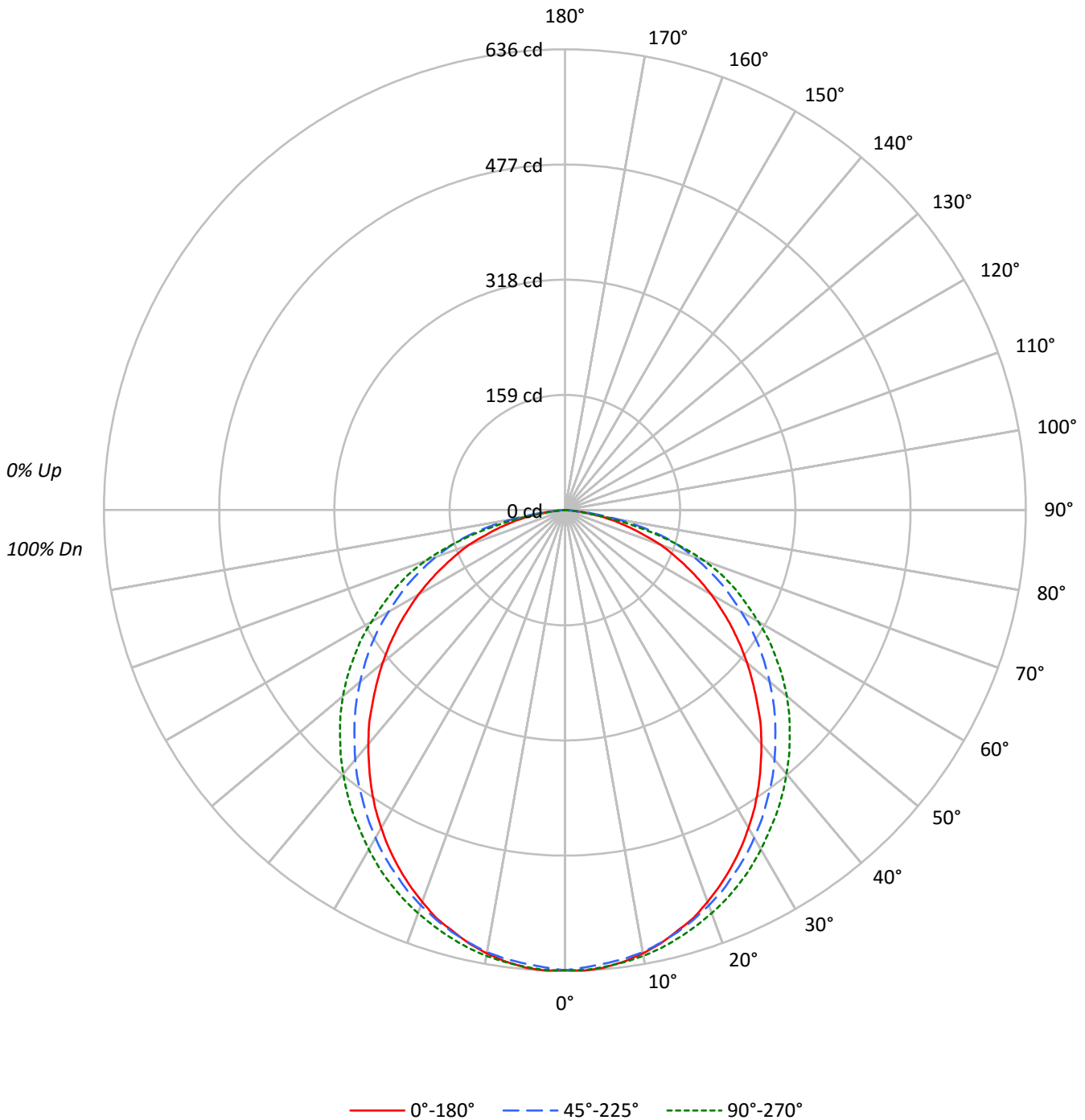
Lumens per Lamp: N/A  
Luminaire Lumens: 1780.0 lumens  
Efficiency: N/A  
Efficacy: 107.9 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 16.5  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	1710	1710	1710
5°	1712	1697	1709
10°	1698	1693	1707
15°	1674	1679	1701
20°	1648	1663	1696
25°	1614	1643	1690
30°	1574	1624	1681
35°	1531	1600	1676
40°	1482	1581	1671
45°	1427	1562	1669
50°	1374	1544	1674
55°	1316	1532	1669
60°	1254	1510	1658
65°	1180	1506	1657
70°	1111	1493	1611
75°	964	1459	1377
80°	779	1176	916
85°	519	408	272



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.0	3.4
10°-20°	170.7	9.6
20°-30°	256.1	14.4
30°-40°	305.5	17.2
40°-50°	315.9	17.7
50°-60°	288.4	16.2
60°-70°	226.9	12.7
70°-80°	132.1	7.4
80°-90°	24.3	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°	486.9	27.4
0°-40°	792.4	44.5
0°-60°	1396.6	78.5
0°-90°	1780.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1780.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	635	635	635	635	635	
5°	634	632	628	634	633	60
15°	601	602	603	611	611	170
25°	544	546	553	567	569	250
35°	466	472	487	506	510	291
45°	375	387	410	433	439	290
55°	281	296	326	350	356	251
65°	185	205	236	255	260	184
75°	93	115	140	138	132	99
85°	17	24	13	11	9	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	635.4	635.4	635.4	635.4	635.4
2.5°	636.3	634.5	631.9	636.3	635.4
5°	633.7	631.9	628.4	633.7	632.8
7.5°	628.4	626.6	624.8	630.1	629.3
10°	621.3	620.4	619.5	625.7	624.8
12.5°	612.5	612.5	611.6	618.7	618.7
15°	601.0	601.9	602.8	610.7	610.7
17.5°	590.4	589.5	592.2	601.0	601.9
20°	575.4	577.2	580.7	591.3	592.2
22.5°	560.4	562.2	568.4	578.9	581.6
25°	543.6	546.3	553.4	566.6	569.2
27.5°	526.0	529.5	539.2	553.4	556.0
30°	506.6	511.9	522.5	538.4	541.0
32.5°	487.2	492.5	505.7	521.6	525.1
35°	466.0	472.2	487.2	505.7	510.1
37.5°	443.9	451.9	469.5	488.0	493.3
40°	421.9	430.7	450.1	469.5	475.7
42.5°	399.8	408.6	429.8	451.9	458.0
45°	375.1	387.4	410.4	433.3	438.6
47.5°	351.3	364.5	390.1	413.0	420.1
50°	328.3	341.5	368.9	392.7	399.8
52.5°	304.5	318.6	347.7	372.4	378.6
55°	280.6	295.7	326.5	350.4	355.7
57.5°	256.8	272.7	304.5	327.4	333.6
60°	233.0	249.8	280.6	303.6	308.0
62.5°	209.2	226.8	258.6	278.9	283.3
65°	185.3	204.7	236.5	255.1	260.3
67.5°	162.4	181.8	212.7	230.3	234.8
70°	141.2	158.9	189.7	203.0	204.7
72.5°	114.7	136.8	166.8	173.9	169.4
75°	92.7	114.7	140.3	137.7	132.4
77.5°	70.6	92.7	109.4	100.6	93.5
80°	50.3	72.4	75.9	62.7	59.1
82.5°	32.7	50.3	42.4	32.7	26.5
85°	16.8	23.8	13.2	10.6	8.8
87.5°	5.3	3.5	1.8	1.8	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)