

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: P311886

Luminaire Tested: **14FCZ2-25-UNV-L83050-HRP-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: P311886  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 14FCZ2-25-UNV-L83050-HRP-CP250-W2A-U-3500K  
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. 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**

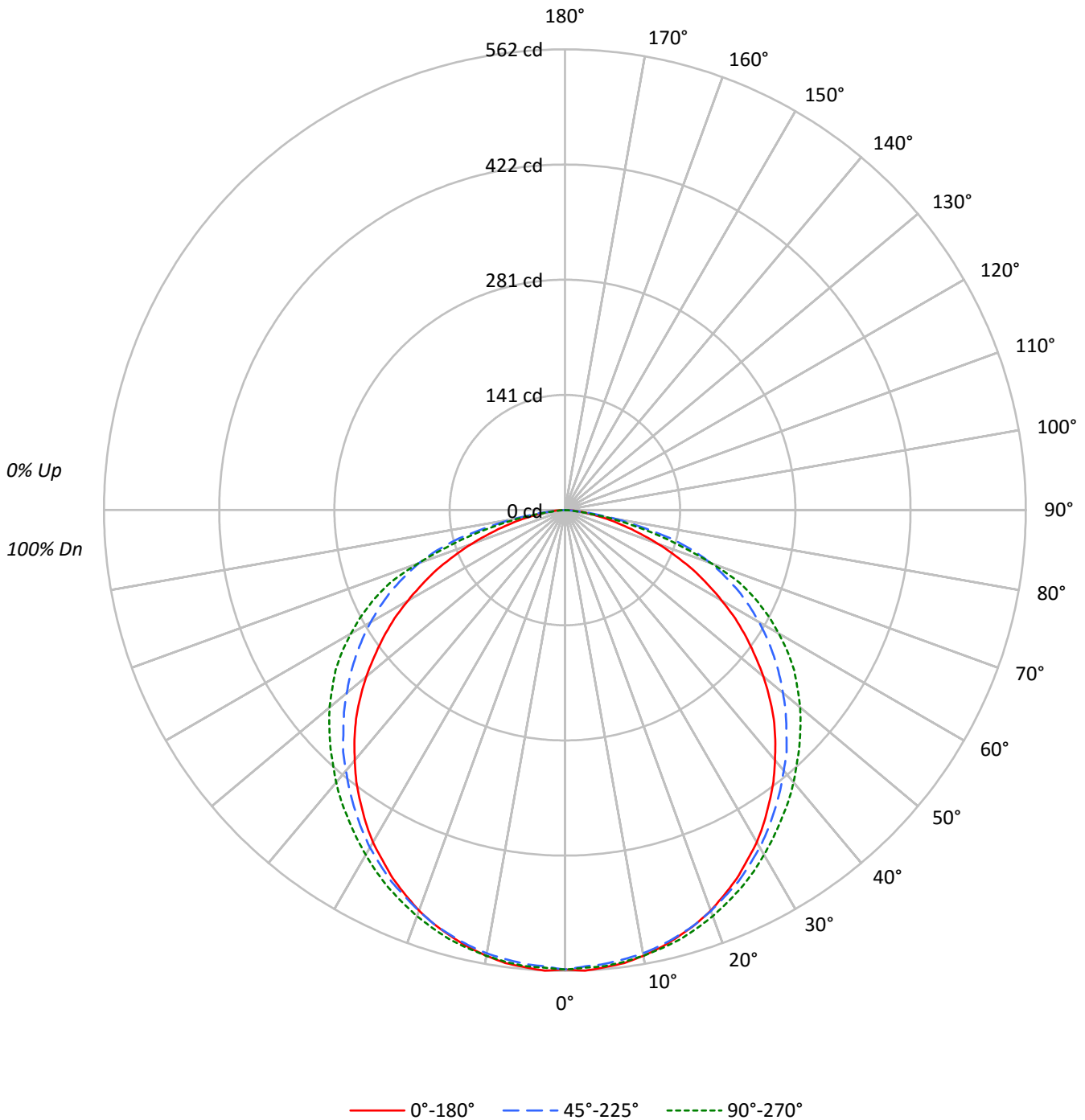
Lumens per Lamp: N/A  
Luminaire Lumens: 1650.0 lumens  
Efficiency: N/A  
Efficacy: 84.2 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.6  
Input Voltage (V): NR  
Input Current (A<sub>in</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	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	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	38	31	26	37	30	26	37	30	25	36	30	25	24

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

	0°	45°	90°
0°	1508	1508	1508
5°	1512	1501	1508
10°	1508	1500	1508
15°	1499	1496	1511
20°	1489	1490	1509
25°	1473	1485	1510
30°	1454	1477	1509
35°	1428	1466	1512
40°	1400	1458	1524
45°	1370	1453	1540
50°	1323	1453	1568
55°	1266	1460	1602
60°	1189	1471	1622
65°	1097	1487	1632
70°	955	1490	1502
75°	788	1386	1213
80°	620	996	812
85°	482	386	191



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.0	3.2
10°-20°	152.2	9.2
20°-30°	231.2	14.0
30°-40°	280.1	17.0
40°-50°	295.2	17.9
50°-60°	275.5	16.7
60°-70°	220.2	13.3
70°-80°	121.2	7.3
80°-90°	21.4	1.3
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°	436.4	26.5
0°-40°	716.5	43.4
0°-60°	1287.2	78.0
0°-90°	1650.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1650.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	560	560	560	560	560	
5°	560	558	556	559	558	53
15°	538	538	537	542	542	152
25°	496	497	500	507	508	228
35°	435	439	446	458	460	272
45°	360	367	382	399	405	277
55°	270	283	311	333	341	241
65°	172	194	234	253	256	170
75°	76	108	133	120	117	82
85°	16	20	12	8	6	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	560.3	560.3	560.3	560.3	560.3
2.5°	562.4	560.9	557.2	560.3	558.8
5°	559.8	558.3	555.7	559.3	558.3
7.5°	557.2	555.2	552.6	556.7	555.7
10°	552.0	550.5	548.9	552.6	552.0
12.5°	545.8	545.3	543.7	547.9	547.4
15°	538.0	538.0	537.0	542.2	542.2
17.5°	529.7	529.2	529.7	535.4	534.9
20°	519.9	519.9	520.4	527.1	527.1
22.5°	507.9	508.5	510.0	518.3	517.8
25°	496.0	497.0	500.2	507.4	508.5
27.5°	481.5	484.1	487.7	496.5	497.6
30°	468.0	469.6	475.3	483.6	485.6
32.5°	451.9	455.0	461.2	470.6	473.2
35°	434.8	438.9	446.2	457.6	460.2
37.5°	417.7	421.3	431.2	443.1	447.8
40°	398.5	404.7	415.1	428.6	433.8
42.5°	379.8	386.0	400.0	414.0	418.7
45°	360.1	366.8	381.9	399.0	404.7
47.5°	338.3	346.1	365.3	383.4	389.6
50°	316.0	325.8	347.1	367.3	374.6
52.5°	292.6	305.1	329.5	350.7	357.5
55°	269.8	283.3	311.3	333.1	341.4
57.5°	246.4	261.0	292.6	317.5	322.2
60°	221.0	238.7	273.4	295.2	301.4
62.5°	196.1	216.4	253.7	274.5	279.7
65°	172.3	194.0	233.5	252.7	256.3
67.5°	146.3	172.3	211.2	228.8	229.8
70°	121.4	151.5	189.4	197.7	190.9
72.5°	97.0	129.2	164.0	157.2	151.5
75°	75.8	108.4	133.3	119.9	116.7
77.5°	56.0	88.7	95.5	88.2	82.5
80°	40.0	70.0	64.3	55.0	52.4
82.5°	27.5	44.1	35.3	27.5	23.9
85°	15.6	19.7	12.5	7.8	6.2
87.5°	6.7	4.7	2.6	2.1	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)