

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: P311881

Luminaire Tested: **14FCZ2-25-UNV-L83050-HRP-CP187-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: P311881  
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-CP187-W2A-U-3500K  
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"  
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**

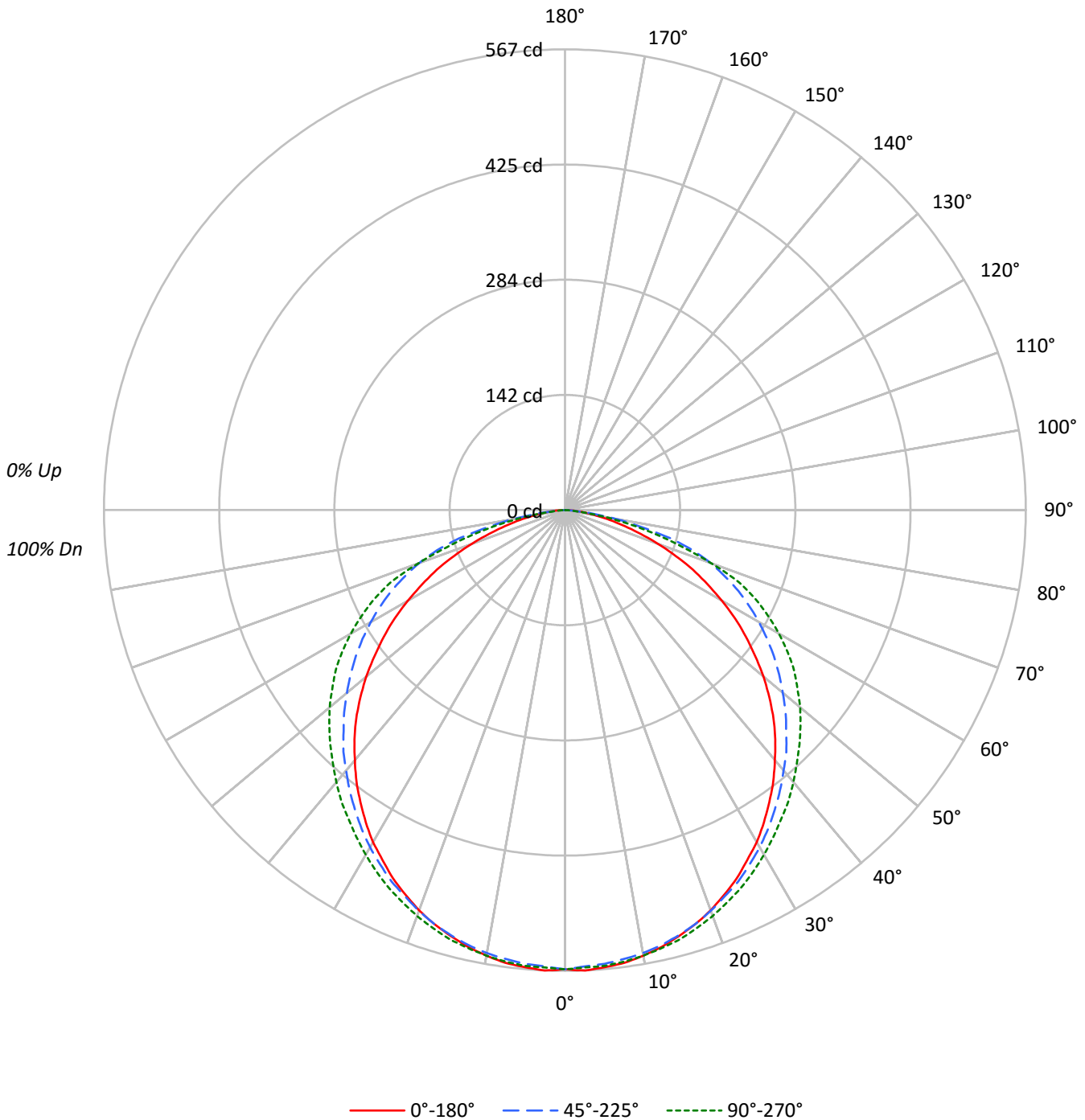
Lumens per Lamp: N/A  
Luminaire Lumens: 1664.0 lumens  
Efficiency: N/A  
Efficacy: 84.9 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	1521	1521	1521
5°	1525	1514	1521
10°	1521	1513	1521
15°	1512	1509	1523
20°	1501	1503	1522
25°	1485	1498	1523
30°	1467	1489	1522
35°	1441	1478	1525
40°	1412	1470	1537
45°	1382	1466	1553
50°	1334	1465	1582
55°	1277	1473	1615
60°	1200	1484	1636
65°	1106	1500	1646
70°	963	1503	1515
75°	794	1398	1224
80°	625	1006	818
85°	485	389	195



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.5	3.2
10°-20°	153.5	9.2
20°-30°	233.1	14.0
30°-40°	282.5	17.0
40°-50°	297.7	17.9
50°-60°	277.9	16.7
60°-70°	222.1	13.3
70°-80°	122.2	7.3
80°-90°	21.6	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°	440.1	26.5
0°-40°	722.6	43.4
0°-60°	1298.2	78.0
0°-90°	1664.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1664.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	565	565	565	565	565	
5°	565	563	560	564	563	54
15°	543	543	542	547	547	153
25°	500	501	504	512	513	230
35°	438	443	450	462	464	274
45°	363	370	385	402	408	279
55°	272	286	314	336	344	243
65°	174	196	236	255	258	171
75°	76	109	134	121	118	82
85°	16	20	13	8	6	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	565.1	565.1	565.1	565.1	565.1
2.5°	567.2	565.6	562.0	565.1	563.5
5°	564.6	563.0	560.4	564.1	563.0
7.5°	562.0	559.9	557.3	561.4	560.4
10°	556.7	555.2	553.6	557.3	556.7
12.5°	550.5	549.9	548.4	552.5	552.0
15°	542.6	542.6	541.6	546.8	546.8
17.5°	534.2	533.7	534.2	540.0	539.5
20°	524.3	524.3	524.8	531.6	531.6
22.5°	512.3	512.8	514.3	522.7	522.2
25°	500.2	501.3	504.4	511.7	512.8
27.5°	485.6	488.2	491.8	500.7	501.8
30°	472.0	473.5	479.3	487.7	489.8
32.5°	455.7	458.9	465.2	474.6	477.2
35°	438.5	442.7	450.0	461.5	464.1
37.5°	421.2	424.9	434.8	446.8	451.6
40°	401.9	408.1	418.6	432.2	437.4
42.5°	383.0	389.3	403.4	417.5	422.3
45°	363.1	369.9	385.1	402.4	408.1
47.5°	341.2	349.0	368.4	386.7	393.0
50°	318.7	328.6	350.0	370.5	377.8
52.5°	295.1	307.7	332.3	353.7	360.5
55°	272.1	285.7	313.9	335.9	344.3
57.5°	248.5	263.2	295.1	320.2	324.9
60°	222.9	240.7	275.7	297.7	304.0
62.5°	197.8	218.2	255.9	276.8	282.0
65°	173.7	195.7	235.5	254.8	258.5
67.5°	147.6	173.7	213.0	230.8	231.8
70°	122.4	152.8	191.0	199.4	192.6
72.5°	97.8	130.3	165.3	158.5	152.8
75°	76.4	109.4	134.5	120.9	117.7
77.5°	56.5	89.5	96.3	89.0	83.2
80°	40.3	70.6	64.9	55.5	52.8
82.5°	27.7	44.5	35.6	27.7	24.1
85°	15.7	19.9	12.6	7.8	6.3
87.5°	6.8	4.7	2.6	2.1	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)