

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: P307549

Luminaire Tested: **14FCZ2-20-UNV-L82765-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: P307549  
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: 14FCZ2-20-UNV-L82765-CP187-W2A-U-3500K  
Description: 1'X4' TROFFER LED MODULE,RIBBED 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**

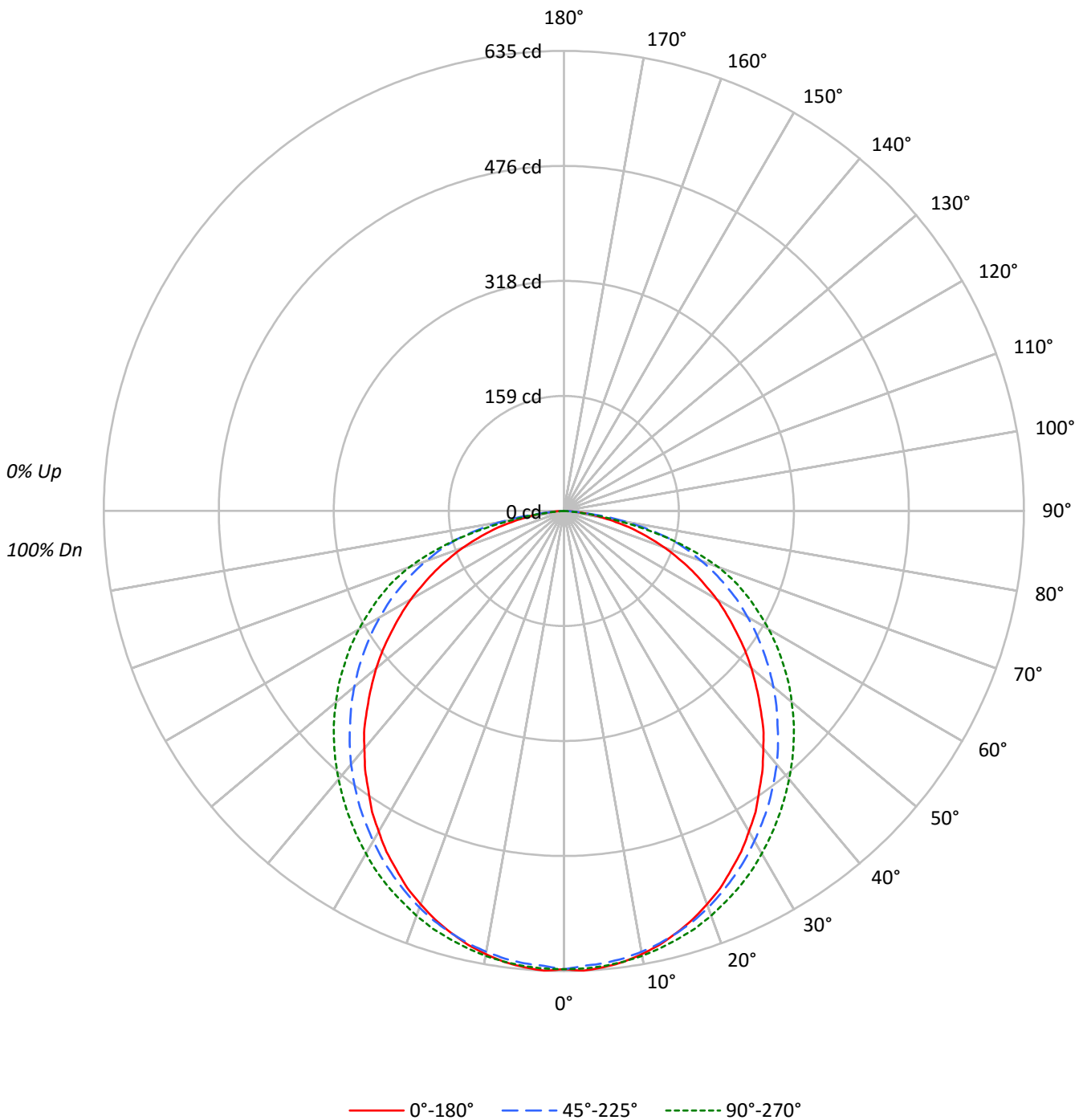
Lumens per Lamp: N/A  
Luminaire Lumens: 1836.0 lumens  
Efficiency: N/A  
Efficacy: 110.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 16.6  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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°	1702	1702	1702
5°	1707	1693	1703
10°	1697	1688	1704
15°	1679	1680	1703
20°	1654	1668	1702
25°	1623	1652	1700
30°	1588	1635	1697
35°	1545	1621	1696
40°	1504	1605	1698
45°	1458	1588	1708
50°	1416	1580	1719
55°	1362	1575	1734
60°	1313	1577	1758
65°	1246	1582	1785
70°	1169	1594	1784
75°	1059	1608	1614
80°	869	1390	1148
85°	645	658	266



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.9	3.3
10°-20°	171.0	9.3
20°-30°	257.6	14.0
30°-40°	309.1	16.8
40°-50°	322.1	17.5
50°-60°	298.2	16.2
60°-70°	240.9	13.1
70°-80°	146.9	8.0
80°-90°	30.3	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°	488.4	26.6
0°-40°	797.4	43.4
0°-60°	1417.8	77.2
0°-90°	1836.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1836.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	632	632	632	632	632	
5°	632	630	627	631	630	60
15°	603	603	603	611	611	170
25°	546	550	556	570	573	252
35°	470	478	493	511	516	295
45°	383	395	417	440	449	296
55°	290	305	336	362	370	260
65°	196	215	248	274	280	193
75°	102	124	155	157	155	107
85°	21	31	21	12	9	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	632.5	632.5	632.5	632.5	632.5
2.5°	635.0	632.9	628.4	632.9	632.1
5°	632.1	630.5	626.8	631.3	630.5
7.5°	628.0	626.4	623.1	628.4	627.6
10°	621.0	620.2	617.8	623.9	623.5
12.5°	612.9	612.4	611.2	618.2	617.8
15°	602.6	603.0	603.0	611.2	611.2
17.5°	591.2	592.0	593.6	602.6	603.9
20°	577.6	579.3	582.6	592.8	594.4
22.5°	563.7	565.0	569.9	582.2	583.8
25°	546.5	549.8	556.4	570.3	572.7
27.5°	530.2	533.0	542.0	556.4	560.5
30°	510.9	515.4	526.1	541.6	546.1
32.5°	492.5	497.4	509.7	527.7	531.8
35°	470.4	477.8	493.3	511.3	516.2
37.5°	450.3	457.3	474.9	494.5	500.3
40°	428.2	436.8	456.9	477.8	483.5
42.5°	407.8	415.9	437.6	458.9	466.7
45°	383.2	394.7	417.2	440.5	448.7
47.5°	360.7	372.1	397.9	422.9	430.3
50°	338.2	350.4	377.5	403.2	410.6
52.5°	314.8	327.9	357.0	382.8	391.4
55°	290.3	305.4	335.7	361.9	369.7
57.5°	266.9	282.5	314.8	341.4	349.2
60°	244.0	260.0	293.1	318.5	326.7
62.5°	218.6	237.4	271.8	296.8	302.9
65°	195.7	214.9	248.5	273.5	280.4
67.5°	171.5	192.4	226.0	248.9	255.5
70°	148.6	170.3	202.6	223.9	226.8
72.5°	124.0	146.2	178.9	192.4	192.4
75°	101.9	124.5	154.7	157.2	155.2
77.5°	77.8	102.8	122.4	117.5	112.6
80°	56.1	80.6	89.7	80.6	74.1
82.5°	37.7	58.5	54.0	43.0	38.1
85°	20.9	31.1	21.3	11.9	8.6
87.5°	7.8	7.0	2.0	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)