

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: P312043

Luminaire Tested: **14FCZ2-29-UNV-L83050-RDP-CA08-W2A-U-4500K**

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: P312043  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 14FCZ2-29-UNV-L83050-RDP-CA08-W2A-U-4500K  
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.08" ACRYLIC SHEET  
Light Source: (168) 4500K 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: 1906.0 lumens  
Efficiency: N/A  
Efficacy: 76.2 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.4  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

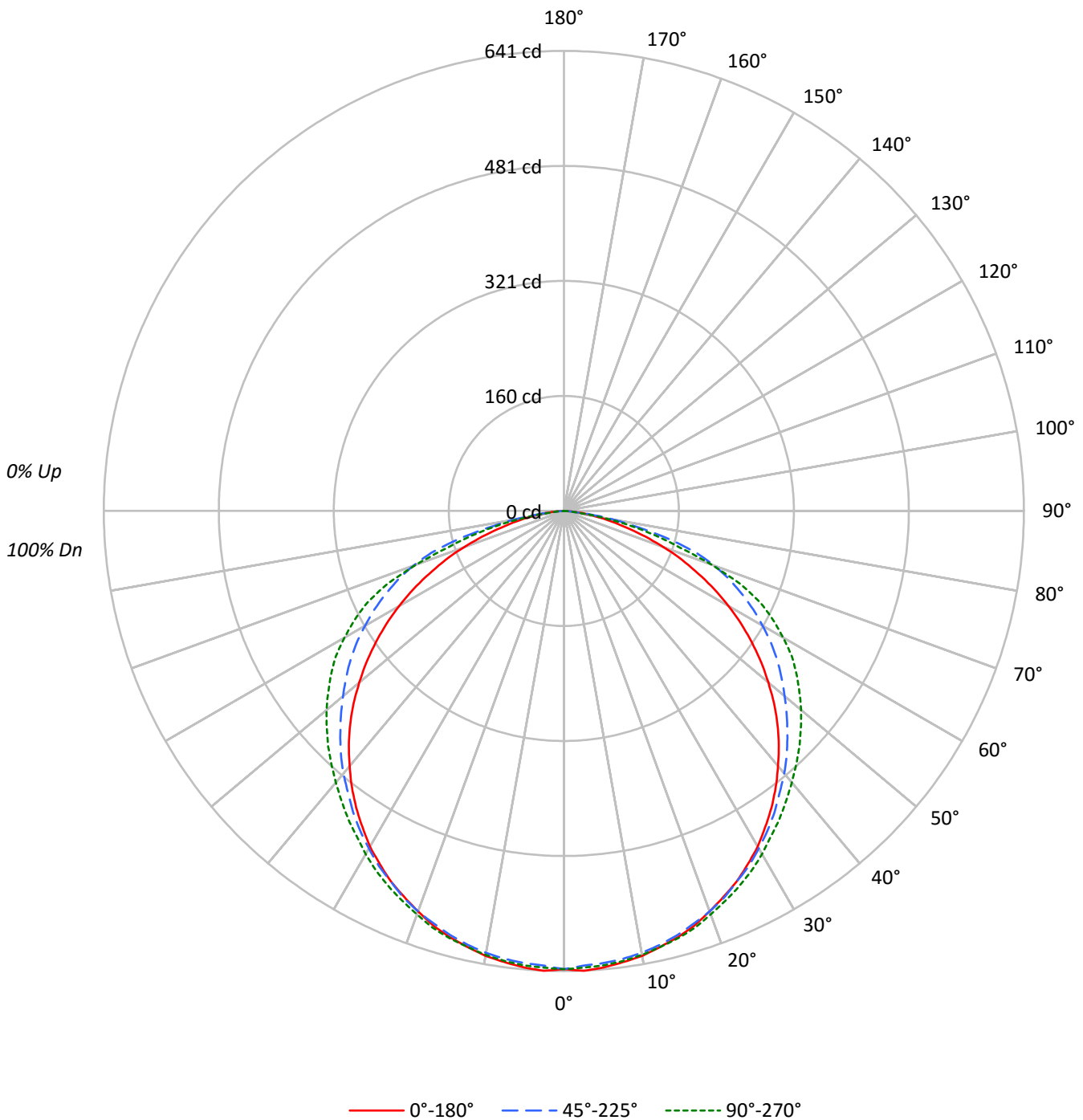
Input Watts (W): 25  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	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	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

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

	0°	45°	90°
0°	1718	1718	1718
5°	1724	1708	1716
10°	1720	1708	1716
15°	1712	1704	1716
20°	1700	1700	1713
25°	1692	1692	1714
30°	1679	1688	1716
35°	1657	1682	1721
40°	1631	1678	1735
45°	1603	1676	1767
50°	1557	1682	1806
55°	1501	1704	1857
60°	1426	1722	1898
65°	1317	1743	1924
70°	1171	1756	1721
75°	944	1578	1377
80°	738	1106	899
85°	506	321	228



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.4	3.2
10°-20°	173.4	9.1
20°-30°	264.0	13.8
30°-40°	321.5	16.9
40°-50°	341.1	17.9
50°-60°	321.9	16.9
60°-70°	259.9	13.6
70°-80°	141.0	7.4
80°-90°	22.8	1.2
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°	497.7	26.1
0°-40°	819.2	43.0
0°-60°	1482.2	77.8
0°-90°	1906.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1906.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	638	638	638	638	638	
5°	638	637	632	637	635	61
15°	615	613	612	616	616	173
25°	570	568	570	576	577	262
35°	504	507	512	522	524	315
45°	421	427	440	457	464	324
55°	320	333	363	387	396	286
65°	207	232	274	296	302	205
75°	91	132	152	137	132	99
85°	16	18	10	9	7	21
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	638.4	638.4	638.4	638.4	638.4
2.5°	641.3	638.4	633.9	638.4	636.9
5°	638.4	636.9	632.4	636.9	635.4
7.5°	633.9	633.9	629.4	632.4	632.4
10°	629.4	628.0	625.0	629.4	628.0
12.5°	622.0	620.5	619.0	623.5	622.0
15°	614.6	613.1	611.6	616.0	616.0
17.5°	605.6	604.1	602.7	608.6	608.6
20°	593.7	593.7	593.7	599.7	598.2
22.5°	581.8	581.8	583.3	589.3	587.8
25°	569.9	568.4	569.9	575.9	577.4
27.5°	555.0	556.5	558.0	564.0	565.5
30°	540.2	541.6	543.1	550.6	552.1
32.5°	522.3	525.3	528.3	537.2	537.2
35°	504.4	507.4	511.9	522.3	523.8
37.5°	485.1	488.1	494.0	505.9	508.9
40°	464.3	468.7	477.7	489.6	494.0
42.5°	443.4	449.4	459.8	473.2	479.1
45°	421.1	427.1	440.5	456.8	464.3
47.5°	397.3	404.7	421.1	441.9	447.9
50°	372.0	382.4	401.8	424.1	431.5
52.5°	346.7	358.6	382.4	406.2	413.7
55°	319.9	333.3	363.1	386.9	395.8
57.5°	293.1	308.0	342.2	367.5	376.5
60°	264.9	282.7	319.9	345.2	352.7
62.5°	236.6	257.4	297.6	322.9	328.9
65°	206.8	232.1	273.8	296.1	302.1
67.5°	178.6	208.3	250.0	266.4	266.4
70°	148.8	181.5	223.2	227.7	218.7
72.5°	119.0	156.2	193.4	177.1	169.6
75°	90.8	132.4	151.8	136.9	132.4
77.5°	68.4	107.1	107.1	98.2	95.2
80°	47.6	81.8	71.4	62.5	58.0
82.5°	31.2	46.1	37.2	29.8	25.3
85°	16.4	17.9	10.4	8.9	7.4
87.5°	6.0	3.0	1.5	3.0	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)