

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: P308644

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-CP250-W2A-U-6500K**

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: P308644  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22FCZ2-20HE-UNV-L82765-CP250-W2A-U-6500K  
Description: 2'X2' TROFFER LED MODULE, RIBBED 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**

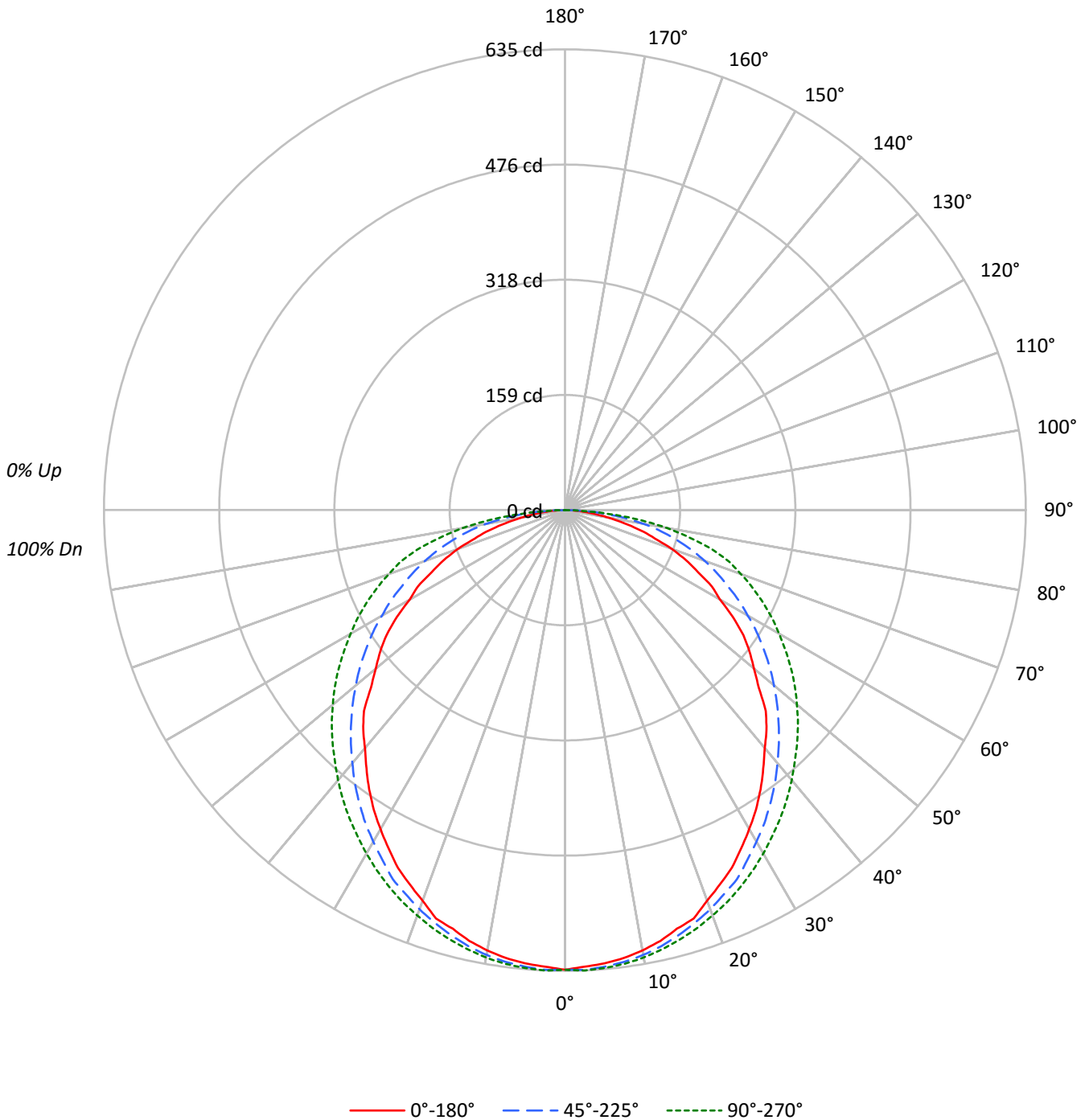
Lumens per Lamp: N/A  
Luminaire Lumens: 1888.0 lumens  
Efficiency: N/A  
Efficacy: 108.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.4  
Input Voltage (V): NR  
Input Current (A<sub>in</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	108	103	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

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

	0°	45°	90°
0°	1704	1704	1704
5°	1694	1706	1711
10°	1684	1701	1711
15°	1664	1689	1707
20°	1641	1677	1703
25°	1615	1666	1701
30°	1578	1640	1699
35°	1544	1621	1701
40°	1505	1600	1708
45°	1489	1585	1723
50°	1423	1574	1748
55°	1407	1568	1785
60°	1328	1566	1834
65°	1289	1577	1916
70°	1237	1614	2033
75°	1127	1663	2189
80°	967	1722	2213
85°	781	1646	1896



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.9	3.2
10°-20°	171.0	9.1
20°-30°	257.3	13.6
30°-40°	308.9	16.4
40°-50°	322.8	17.1
50°-60°	300.8	15.9
60°-70°	246.7	13.1
70°-80°	166.3	8.8
80°-90°	54.2	2.9
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°	488.3	25.9
0°-40°	797.1	42.2
0°-60°	1420.8	75.3
0°-90°	1888.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1888.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	633	633	633	633	633	
5°	627	629	632	632	633	60
15°	597	601	606	612	613	169
25°	544	548	561	569	573	250
35°	470	476	493	510	518	294
45°	391	394	417	442	453	299
55°	300	305	334	366	380	266
65°	202	211	248	284	301	201
75°	108	120	160	196	210	114
85°	25	36	53	62	61	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	633.4	633.4	633.4	633.4	633.4
2.5°	629.8	631.6	634.3	635.2	635.2
5°	627.1	628.9	631.6	632.5	633.4
7.5°	622.6	624.4	628.0	629.8	630.7
10°	616.3	618.1	622.6	625.3	626.2
12.5°	608.1	609.9	615.4	619.0	619.9
15°	597.3	600.9	606.3	611.8	612.7
17.5°	590.1	589.2	596.4	602.7	604.5
20°	572.9	577.4	585.5	592.8	594.6
22.5°	558.4	562.1	572.9	581.0	584.6
25°	544.0	547.6	561.2	569.3	572.9
27.5°	525.9	531.3	544.0	555.7	560.2
30°	507.8	513.3	527.7	541.3	546.7
32.5°	489.8	496.1	511.5	525.9	532.2
35°	469.9	476.2	493.4	510.5	517.8
37.5°	449.1	457.2	475.3	494.3	502.4
40°	428.3	436.5	455.4	477.1	486.1
42.5°	411.1	414.8	436.5	459.9	469.0
45°	391.3	394.0	416.6	441.9	452.7
47.5°	362.4	372.3	396.7	424.7	435.5
50°	339.8	350.6	375.9	405.7	417.5
52.5°	320.8	328.0	356.0	385.8	399.4
55°	300.0	305.4	334.3	366.0	380.4
57.5°	274.7	284.6	313.6	346.1	360.5
60°	246.7	259.3	291.0	326.2	340.7
62.5°	228.6	235.8	270.2	305.4	321.7
65°	202.4	211.4	247.6	283.7	300.9
67.5°	180.7	189.8	226.8	263.0	280.1
70°	157.2	166.3	205.1	241.3	258.4
72.5°	130.1	142.8	183.4	219.6	237.7
75°	108.4	120.2	159.9	196.1	210.5
77.5°	84.0	99.4	136.4	166.3	177.1
80°	62.4	77.7	111.1	132.8	142.8
82.5°	42.5	57.8	83.1	99.4	104.8
85°	25.3	36.1	53.3	62.4	61.4
87.5°	11.7	15.4	21.7	21.7	20.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)