

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: P308640

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-CP250-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: P308640  
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-4500K  
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**

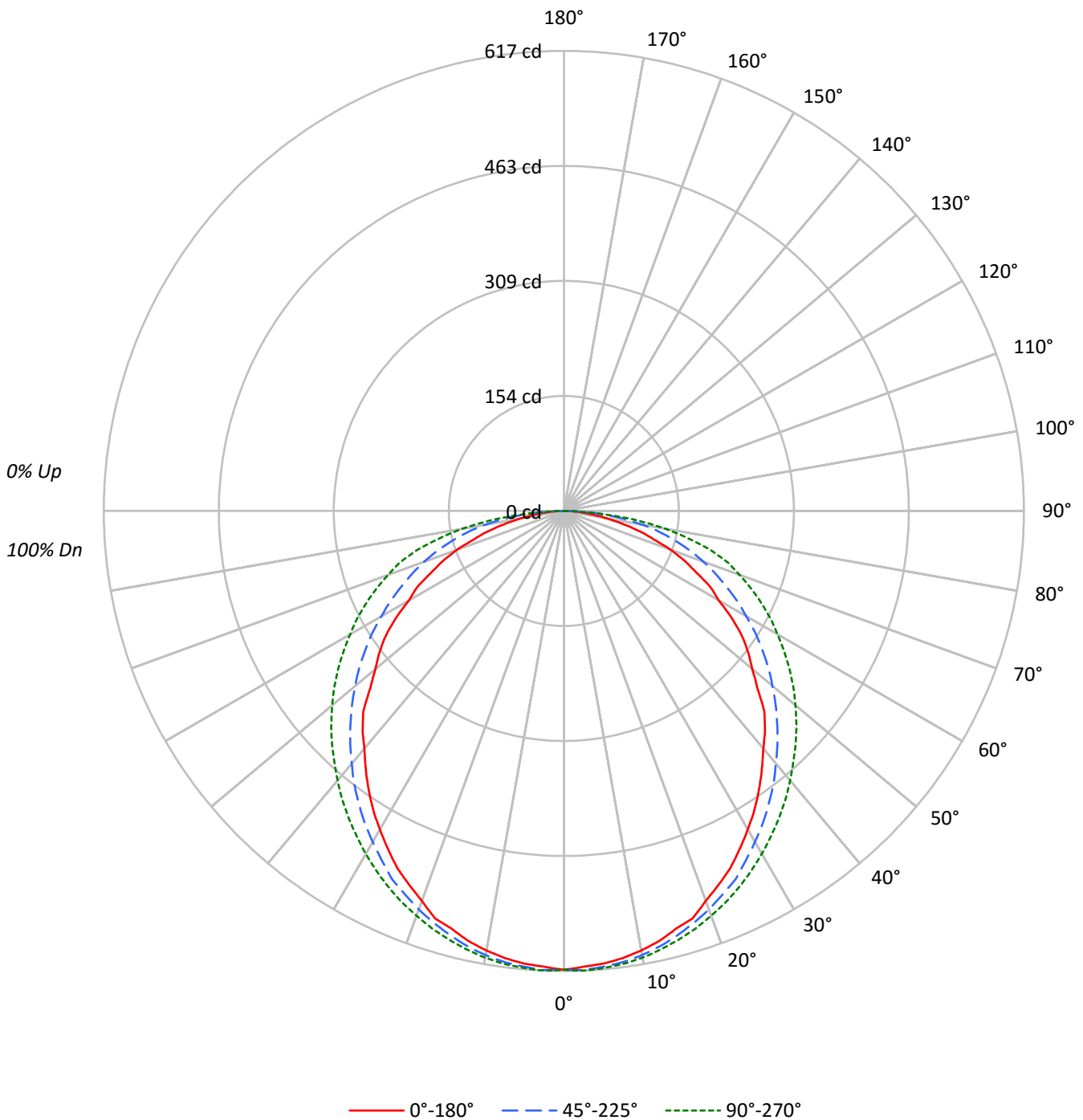
Lumens per Lamp: N/A  
Luminaire Lumens: 1834.0 lumens  
Efficiency: N/A  
Efficacy: 107.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	1656	1656	1656
5°	1646	1657	1662
10°	1636	1653	1662
15°	1616	1641	1658
20°	1594	1629	1654
25°	1569	1618	1652
30°	1533	1593	1650
35°	1499	1575	1652
40°	1462	1554	1659
45°	1447	1540	1674
50°	1382	1529	1698
55°	1367	1524	1734
60°	1290	1521	1781
65°	1252	1531	1861
70°	1201	1568	1975
75°	1095	1616	2126
80°	939	1674	2149
85°	760	1599	1843



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.2	3.2
10°-20°	166.1	9.1
20°-30°	250.0	13.6
30°-40°	300.0	16.4
40°-50°	313.6	17.1
50°-60°	292.2	15.9
60°-70°	239.7	13.1
70°-80°	161.5	8.8
80°-90°	52.6	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°	474.3	25.9
0°-40°	774.3	42.2
0°-60°	1380.2	75.3
0°-90°	1834.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1834.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	615	615	615	615	615	
5°	609	611	614	614	615	58
15°	580	584	589	594	595	164
25°	528	532	545	553	556	243
35°	456	463	479	496	503	285
45°	380	383	405	429	440	290
55°	291	297	325	356	370	258
65°	197	205	240	276	292	196
75°	105	117	155	190	204	111
85°	25	35	52	61	60	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	615.3	615.3	615.3	615.3	615.3
2.5°	611.8	613.6	616.2	617.1	617.1
5°	609.2	610.9	613.6	614.4	615.3
7.5°	604.8	606.5	610.1	611.8	612.7
10°	598.6	600.4	604.8	607.4	608.3
12.5°	590.7	592.5	597.8	601.3	602.2
15°	580.2	583.7	589.0	594.3	595.1
17.5°	573.2	572.3	579.3	585.5	587.2
20°	556.5	560.9	568.8	575.8	577.6
22.5°	542.5	546.0	556.5	564.4	567.9
25°	528.4	531.9	545.1	553.0	556.5
27.5°	510.9	516.1	528.4	539.8	544.2
30°	493.3	498.6	512.6	525.8	531.1
32.5°	475.8	481.9	496.8	510.9	517.0
35°	456.4	462.6	479.3	495.9	503.0
37.5°	436.3	444.2	461.7	480.1	488.0
40°	416.1	424.0	442.4	463.5	472.2
42.5°	399.4	402.9	424.0	446.8	455.6
45°	380.1	382.7	404.7	429.2	439.8
47.5°	352.0	361.6	385.3	412.6	423.1
50°	330.0	340.6	365.2	394.1	405.5
52.5°	311.6	318.6	345.8	374.8	388.0
55°	291.4	296.7	324.8	355.5	369.5
57.5°	266.8	276.5	304.6	336.2	350.2
60°	239.6	251.9	282.6	316.9	330.9
62.5°	222.1	229.1	262.5	296.7	312.5
65°	196.6	205.4	240.5	275.6	292.3
67.5°	175.6	184.3	220.3	255.4	272.1
70°	152.7	161.5	199.3	234.4	251.0
72.5°	126.4	138.7	178.2	213.3	230.9
75°	105.3	116.7	155.4	190.5	204.5
77.5°	81.6	96.6	132.5	161.5	172.0
80°	60.6	75.5	108.0	129.0	138.7
82.5°	41.3	56.2	80.8	96.6	101.8
85°	24.6	35.1	51.8	60.6	59.7
87.5°	11.4	14.9	21.1	21.1	20.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)