

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: P308907

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-S-CP250-W2A-U-3000K**

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: P308907  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)  
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-S-CP250-W2A-U-3000K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH 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**

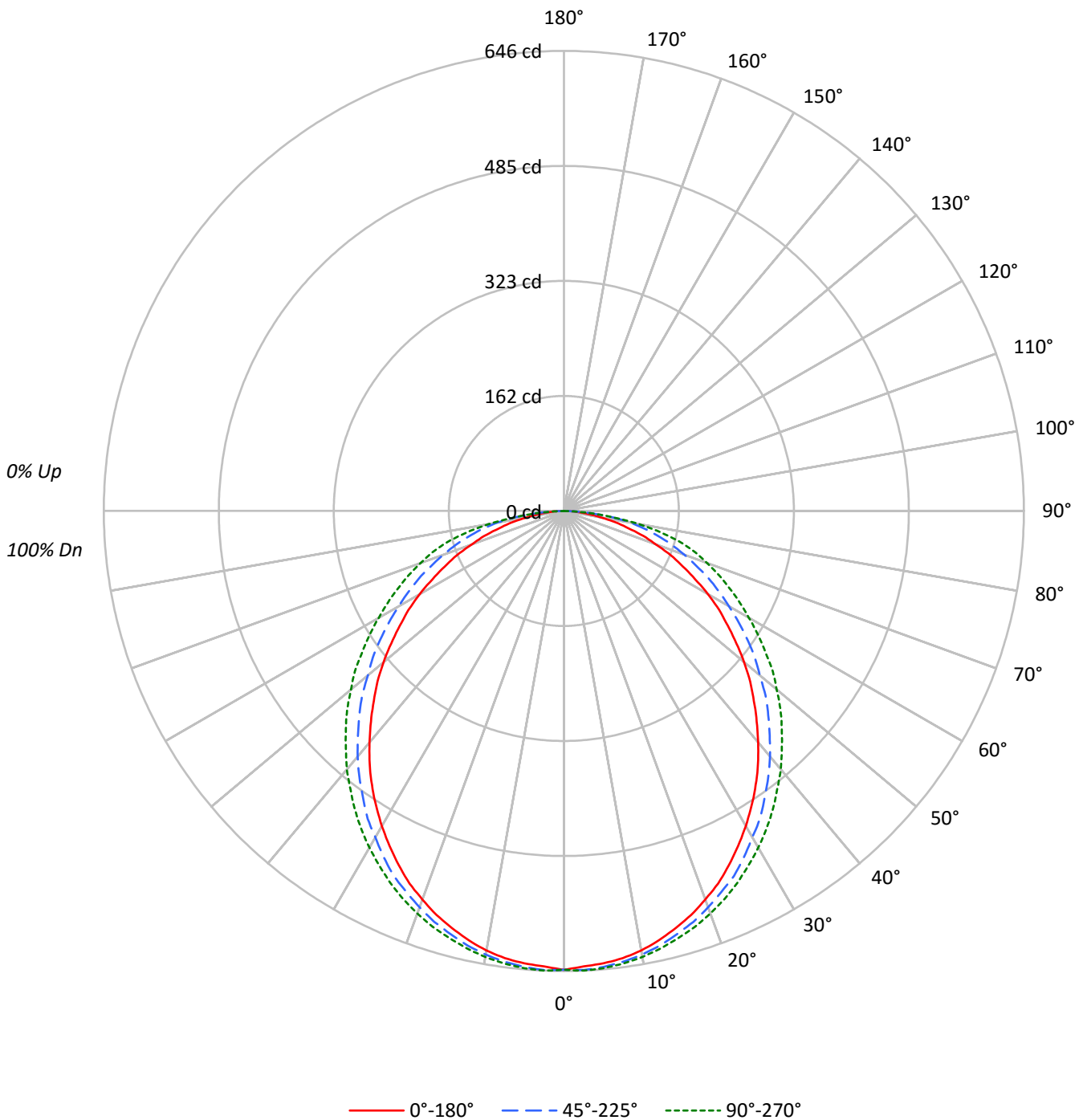
Lumens per Lamp: N/A  
Luminaire Lumens: 1798.0 lumens  
Efficiency: N/A  
Efficacy: 108.3 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 16.6  
Input Voltage (V): NR  
Input Current (A<sub>in</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	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	1734	1734	1734
5°	1722	1736	1740
10°	1712	1728	1738
15°	1690	1713	1729
20°	1662	1696	1723
25°	1629	1679	1711
30°	1588	1645	1697
35°	1543	1615	1681
40°	1491	1583	1665
45°	1437	1545	1647
50°	1384	1503	1633
55°	1318	1476	1621
60°	1260	1440	1616
65°	1175	1431	1635
70°	1083	1419	1683
75°	977	1439	1771
80°	845	1481	1664
85°	701	1244	1244



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.9	3.4
10°-20°	173.4	9.6
20°-30°	259.4	14.4
30°-40°	307.2	17.1
40°-50°	313.1	17.4
50°-60°	280.6	15.6
60°-70°	219.7	12.2
70°-80°	141.7	7.9
80°-90°	41.9	2.3
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°	493.8	27.5
0°-40°	801.0	44.5
0°-60°	1394.8	77.6
0°-90°	1798.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1798.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	644	644	644	644	644	
5°	638	639	643	643	644	61
15°	606	610	615	620	621	171
25°	549	554	565	573	576	253
35°	470	476	492	507	512	294
45°	378	386	406	427	433	292
55°	281	290	315	336	346	252
65°	185	196	225	247	257	183
75°	94	108	138	162	170	101
85°	23	31	40	40	40	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	644.3	644.3	644.3	644.3	644.3
2.5°	640.1	641.8	645.1	646.0	646.0
5°	637.6	639.2	642.6	643.4	644.3
7.5°	633.4	634.2	638.4	640.1	640.9
10°	626.7	628.3	632.5	635.1	635.9
12.5°	617.4	620.0	625.0	628.3	629.2
15°	606.5	609.9	614.9	620.0	620.8
17.5°	594.8	598.1	604.9	610.7	612.4
20°	580.5	584.7	592.3	599.0	601.5
22.5°	566.3	569.6	578.8	587.2	589.8
25°	548.6	553.7	565.4	573.0	576.3
27.5°	530.2	536.1	547.8	557.9	561.2
30°	510.9	516.8	529.3	541.9	546.1
32.5°	490.8	497.5	512.6	525.2	529.3
35°	469.8	475.7	491.6	506.7	511.7
37.5°	448.0	453.0	471.5	487.4	492.4
40°	424.5	431.2	450.5	468.9	474.0
42.5°	401.0	408.5	427.8	448.0	453.0
45°	377.5	385.9	406.0	427.0	432.9
47.5°	354.9	361.6	384.2	404.4	412.7
50°	330.5	337.2	359.1	381.7	390.1
52.5°	305.4	314.6	338.1	359.9	370.0
55°	281.0	290.3	314.6	336.4	345.6
57.5°	258.4	265.9	291.1	313.8	323.0
60°	234.1	240.8	267.6	291.9	300.3
62.5°	208.0	218.1	245.8	268.4	278.5
65°	184.6	195.5	224.8	246.6	256.7
67.5°	162.7	172.8	201.3	224.8	235.7
70°	137.6	151.0	180.4	203.9	213.9
72.5°	117.4	129.2	159.4	182.9	193.8
75°	94.0	108.2	138.4	161.9	170.3
77.5°	74.7	88.9	117.4	135.9	140.1
80°	54.5	68.8	95.6	104.9	107.4
82.5°	36.9	50.3	68.8	71.3	72.1
85°	22.7	31.0	40.3	40.3	40.3
87.5°	10.9	12.6	14.3	13.4	13.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)