

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: P308913

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-S-CP250-W2A-U-5700K**

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: P308913  
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-5700K  
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**

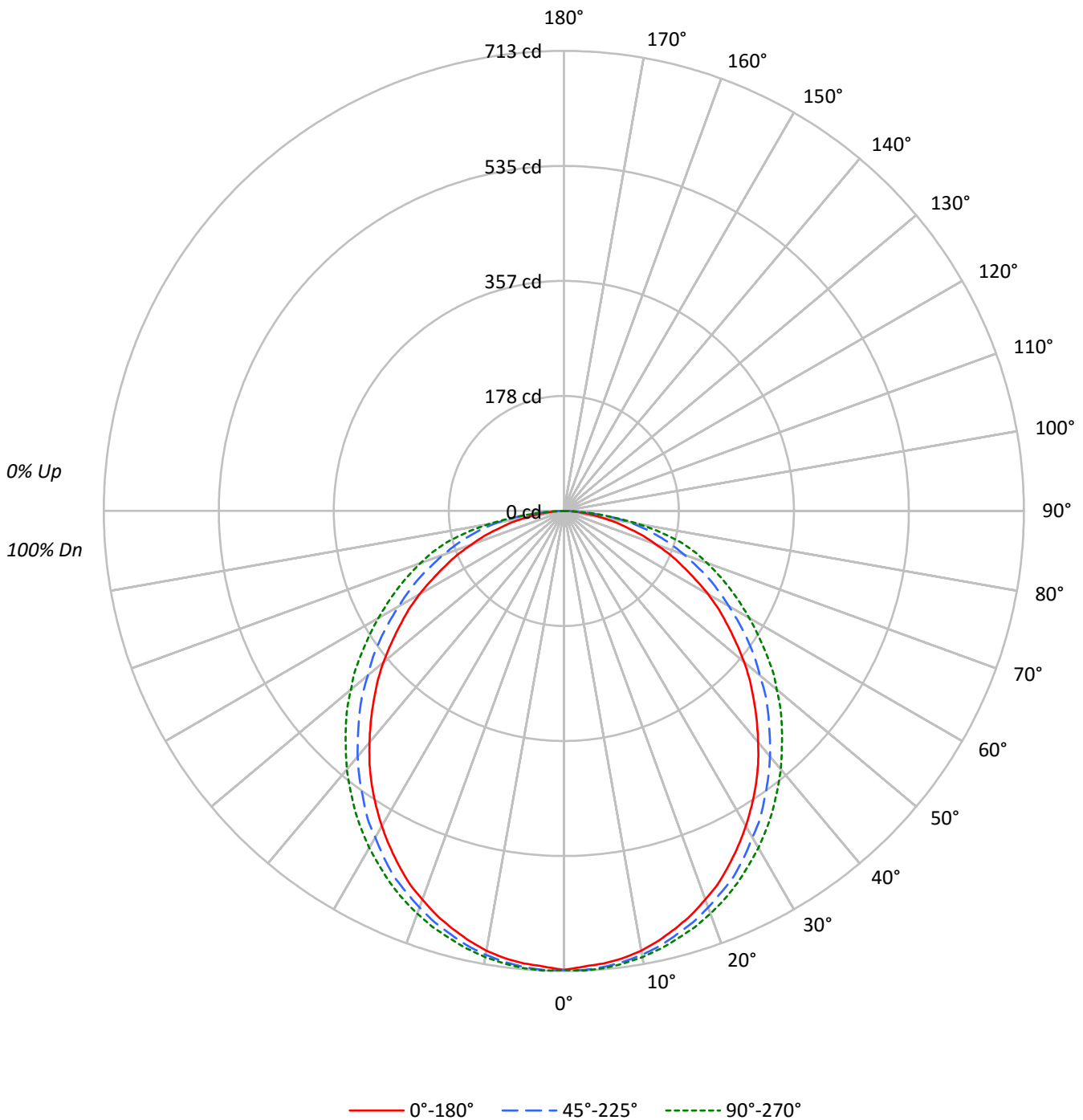
Lumens per Lamp: N/A  
Luminaire Lumens: 1985.0 lumens  
Efficiency: N/A  
Efficacy: 115.4 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.2  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	1914	1914	1914
5°	1901	1916	1921
10°	1890	1908	1918
15°	1865	1891	1909
20°	1835	1873	1902
25°	1798	1853	1889
30°	1753	1816	1873
35°	1704	1783	1856
40°	1646	1747	1838
45°	1586	1706	1819
50°	1528	1659	1803
55°	1456	1629	1790
60°	1391	1590	1785
65°	1298	1580	1805
70°	1195	1566	1858
75°	1078	1589	1955
80°	933	1636	1836
85°	772	1374	1374



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.3	3.4
10°-20°	191.4	9.6
20°-30°	286.4	14.4
30°-40°	339.2	17.1
40°-50°	345.7	17.4
50°-60°	309.8	15.6
60°-70°	242.6	12.2
70°-80°	156.4	7.9
80°-90°	46.2	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°	545.1	27.5
0°-40°	884.3	44.5
0°-60°	1539.8	77.6
0°-90°	1985.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1985.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	711	711	711	711	711	
5°	704	706	709	710	711	67
15°	670	673	679	684	685	189
25°	606	611	624	633	636	279
35°	519	525	543	559	565	324
45°	417	426	448	471	478	322
55°	310	320	347	371	382	278
65°	204	216	248	272	283	202
75°	104	120	153	179	188	111
85°	25	34	44	44	44	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	711.3	711.3	711.3	711.3	711.3
2.5°	706.7	708.5	712.2	713.1	713.1
5°	703.9	705.7	709.4	710.4	711.3
7.5°	699.2	700.2	704.8	706.7	707.6
10°	691.8	693.7	698.3	701.1	702.0
12.5°	681.7	684.4	690.0	693.7	694.6
15°	669.6	673.3	678.9	684.4	685.4
17.5°	656.6	660.3	667.8	674.2	676.1
20°	640.9	645.5	653.9	661.3	664.1
22.5°	625.2	628.9	639.0	648.3	651.1
25°	605.7	611.3	624.2	632.6	636.3
27.5°	585.3	591.8	604.8	615.9	619.6
30°	564.0	570.5	584.4	598.3	602.9
32.5°	541.8	549.2	565.9	579.8	584.4
35°	518.6	525.1	542.7	559.4	565.0
37.5°	494.6	500.1	520.5	538.1	543.7
40°	468.6	476.0	497.3	517.7	523.3
42.5°	442.7	451.0	472.3	494.6	500.1
45°	416.8	426.0	448.3	471.4	477.9
47.5°	391.8	399.2	424.2	446.4	455.7
50°	364.9	372.3	396.4	421.4	430.7
52.5°	337.1	347.3	373.2	397.3	408.4
55°	310.3	320.4	347.3	371.4	381.6
57.5°	285.3	293.6	321.4	346.4	356.6
60°	258.4	265.8	295.4	322.3	331.6
62.5°	229.7	240.8	271.4	296.4	307.5
65°	203.8	215.8	248.2	272.3	283.4
67.5°	179.7	190.8	222.3	248.2	260.2
70°	151.9	166.7	199.1	225.1	236.2
72.5°	129.7	142.6	176.0	201.9	213.9
75°	103.7	119.5	152.8	178.7	188.0
77.5°	82.4	98.2	129.7	150.0	154.7
80°	60.2	75.9	105.6	115.8	118.5
82.5°	40.8	55.6	75.9	78.7	79.6
85°	25.0	34.3	44.5	44.5	44.5
87.5°	12.0	13.9	15.7	14.8	14.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)