

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: P308873

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-S-CA08-W2A-U-4000K**

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: P308873  
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-CA08-W2A-U-4000K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.08" ACRYLIC 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**

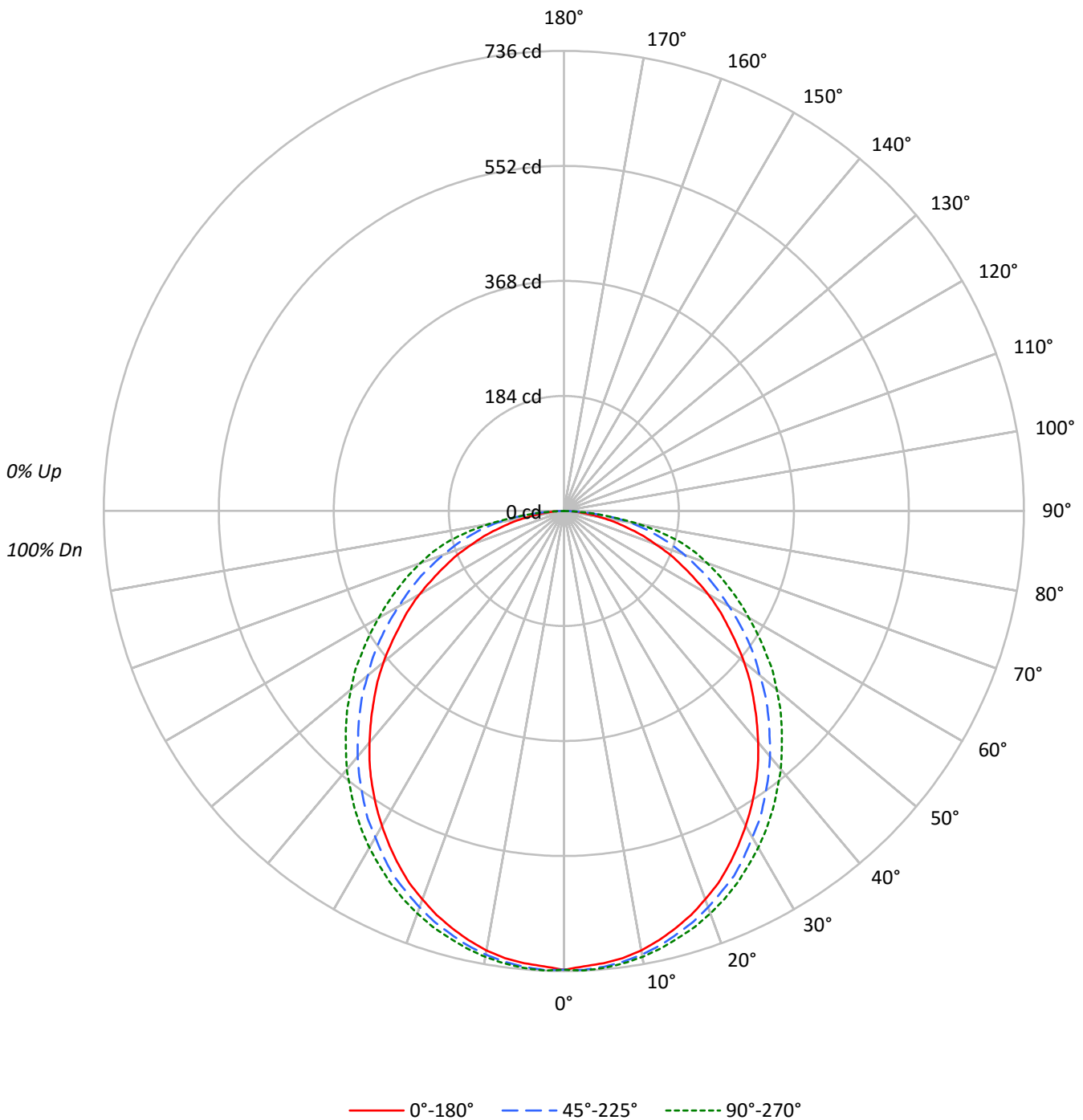
Lumens per Lamp: N/A  
Luminaire Lumens: 2048.0 lumens  
Efficiency: N/A  
Efficacy: 121.2 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 16.9  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	1975	1975	1975
5°	1962	1977	1982
10°	1950	1969	1979
15°	1925	1951	1970
20°	1893	1932	1962
25°	1855	1912	1949
30°	1808	1874	1933
35°	1758	1840	1915
40°	1698	1802	1897
45°	1636	1760	1877
50°	1576	1712	1860
55°	1502	1681	1847
60°	1435	1640	1841
65°	1338	1631	1862
70°	1233	1616	1917
75°	1112	1640	2017
80°	962	1688	1895
85°	797	1417	1417



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.4	3.4
10°-20°	197.5	9.6
20°-30°	295.5	14.4
30°-40°	350.0	17.1
40°-50°	356.7	17.4
50°-60°	319.7	15.6
60°-70°	250.3	12.2
70°-80°	161.4	7.9
80°-90°	47.7	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°	562.4	27.5
0°-40°	912.4	44.5
0°-60°	1588.7	77.6
0°-90°	2048.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2048.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	734	734	734	734	734	
5°	726	728	732	733	734	69
15°	691	695	700	706	707	195
25°	625	631	644	653	656	288
35°	535	542	560	577	583	334
45°	430	440	462	486	493	332
55°	320	331	358	383	394	287
65°	210	223	256	281	292	209
75°	107	123	158	184	194	115
85°	26	35	46	46	46	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	733.9	733.9	733.9	733.9	733.9
2.5°	729.1	731.0	734.8	735.8	735.8
5°	726.2	728.1	732.0	732.9	733.9
7.5°	721.4	722.4	727.2	729.1	730.0
10°	713.8	715.7	720.5	723.4	724.3
12.5°	703.3	706.2	711.9	715.7	716.7
15°	690.9	694.7	700.4	706.2	707.1
17.5°	677.5	681.3	689.0	695.6	697.6
20°	661.2	666.0	674.6	682.3	685.1
22.5°	645.0	648.8	659.3	668.9	671.8
25°	624.9	630.7	644.0	652.6	656.5
27.5°	603.9	610.6	624.0	635.4	639.3
30°	581.9	588.6	603.0	617.3	622.1
32.5°	559.0	566.6	583.8	598.2	603.0
35°	535.1	541.8	560.0	577.2	582.9
37.5°	510.3	516.0	537.0	555.2	560.9
40°	483.5	491.2	513.1	534.2	539.9
42.5°	456.8	465.4	487.3	510.3	516.0
45°	430.0	439.6	462.5	486.4	493.1
47.5°	404.2	411.8	437.6	460.6	470.1
50°	376.5	384.1	409.0	434.8	444.3
52.5°	347.8	358.3	385.1	409.9	421.4
55°	320.1	330.6	358.3	383.2	393.7
57.5°	294.3	302.9	331.6	357.4	367.9
60°	266.6	274.2	304.8	332.5	342.1
62.5°	237.0	248.4	280.0	305.8	317.2
65°	210.2	222.6	256.1	280.9	292.4
67.5°	185.4	196.8	229.3	256.1	268.5
70°	156.7	172.0	205.4	232.2	243.7
72.5°	133.8	147.2	181.6	208.3	220.7
75°	107.0	123.3	157.7	184.4	194.0
77.5°	85.0	101.3	133.8	154.8	159.6
80°	62.1	78.4	108.9	119.4	122.3
82.5°	42.0	57.3	78.4	81.2	82.2
85°	25.8	35.4	45.9	45.9	45.9
87.5°	12.4	14.3	16.2	15.3	15.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)