

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: P308877

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-S-CA08-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: P308877  
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-5700K  
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**

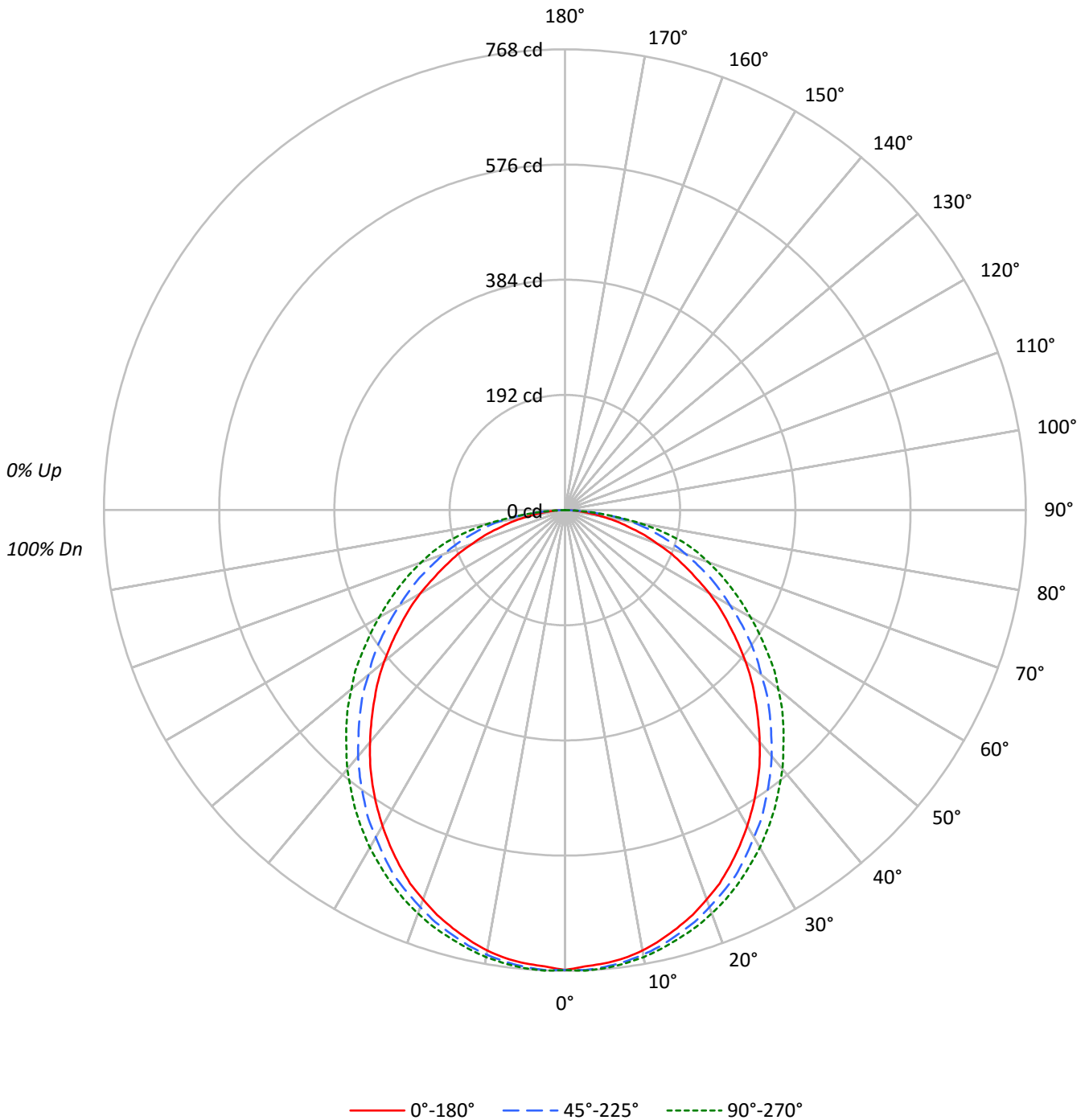
Lumens per Lamp: N/A  
Luminaire Lumens: 2139.0 lumens  
Efficiency: N/A  
Efficacy: 124.4 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.2  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2063	2063	2063
5°	2049	2065	2071
10°	2037	2056	2067
15°	2010	2038	2057
20°	1978	2018	2049
25°	1938	1997	2036
30°	1889	1957	2019
35°	1836	1921	2000
40°	1774	1883	1981
45°	1709	1838	1960
50°	1646	1788	1943
55°	1568	1756	1929
60°	1498	1714	1923
65°	1398	1703	1945
70°	1288	1688	2002
75°	1162	1712	2106
80°	1006	1764	1979
85°	831	1479	1479



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.5	3.4
10°-20°	206.3	9.6
20°-30°	308.6	14.4
30°-40°	365.5	17.1
40°-50°	372.5	17.4
50°-60°	333.9	15.6
60°-70°	261.4	12.2
70°-80°	168.6	7.9
80°-90°	49.8	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°	587.4	27.5
0°-40°	952.9	44.5
0°-60°	1659.3	77.6
0°-90°	2139.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2139.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	766	766	766	766	766	
5°	758	760	764	766	766	72
15°	722	726	732	738	738	203
25°	653	659	673	682	686	300
35°	559	566	585	603	609	349
45°	449	459	483	508	515	347
55°	334	345	374	400	411	300
65°	220	232	268	293	305	218
75°	112	129	165	193	203	120
85°	27	37	48	48	48	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	766.5	766.5	766.5	766.5	766.5
2.5°	761.5	763.5	767.5	768.5	768.5
5°	758.5	760.5	764.5	765.5	766.5
7.5°	753.5	754.5	759.5	761.5	762.5
10°	745.5	747.5	752.5	755.5	756.5
12.5°	734.5	737.5	743.5	747.5	748.5
15°	721.6	725.6	731.5	737.5	738.5
17.5°	707.6	711.6	719.6	726.6	728.5
20°	690.6	695.6	704.6	712.6	715.6
22.5°	673.7	677.6	688.6	698.6	701.6
25°	652.7	658.7	672.7	681.6	685.6
27.5°	630.7	637.7	651.7	663.7	667.7
30°	607.8	614.8	629.7	644.7	649.7
32.5°	583.8	591.8	609.8	624.8	629.7
35°	558.9	565.9	584.8	602.8	608.8
37.5°	532.9	538.9	560.9	579.8	585.8
40°	505.0	513.0	535.9	557.9	563.9
42.5°	477.0	486.0	509.0	532.9	538.9
45°	449.1	459.1	483.0	508.0	515.0
47.5°	422.2	430.1	457.1	481.0	491.0
50°	393.2	401.2	427.1	454.1	464.1
52.5°	363.3	374.3	402.2	428.1	440.1
55°	334.3	345.3	374.3	400.2	411.2
57.5°	307.4	316.4	346.3	373.3	384.2
60°	278.4	286.4	318.4	347.3	357.3
62.5°	247.5	259.5	292.4	319.4	331.3
65°	219.6	232.5	267.5	293.4	305.4
67.5°	193.6	205.6	239.5	267.5	280.4
70°	163.7	179.6	214.6	242.5	254.5
72.5°	139.7	153.7	189.6	217.6	230.5
75°	111.8	128.7	164.7	192.6	202.6
77.5°	88.8	105.8	139.7	161.7	166.7
80°	64.9	81.8	113.8	124.8	127.7
82.5°	43.9	59.9	81.8	84.8	85.8
85°	26.9	36.9	47.9	47.9	47.9
87.5°	13.0	15.0	17.0	16.0	16.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)