

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: P308876

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-S-CA08-W2A-U-5500K**

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: P308876  
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-5500K  
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**

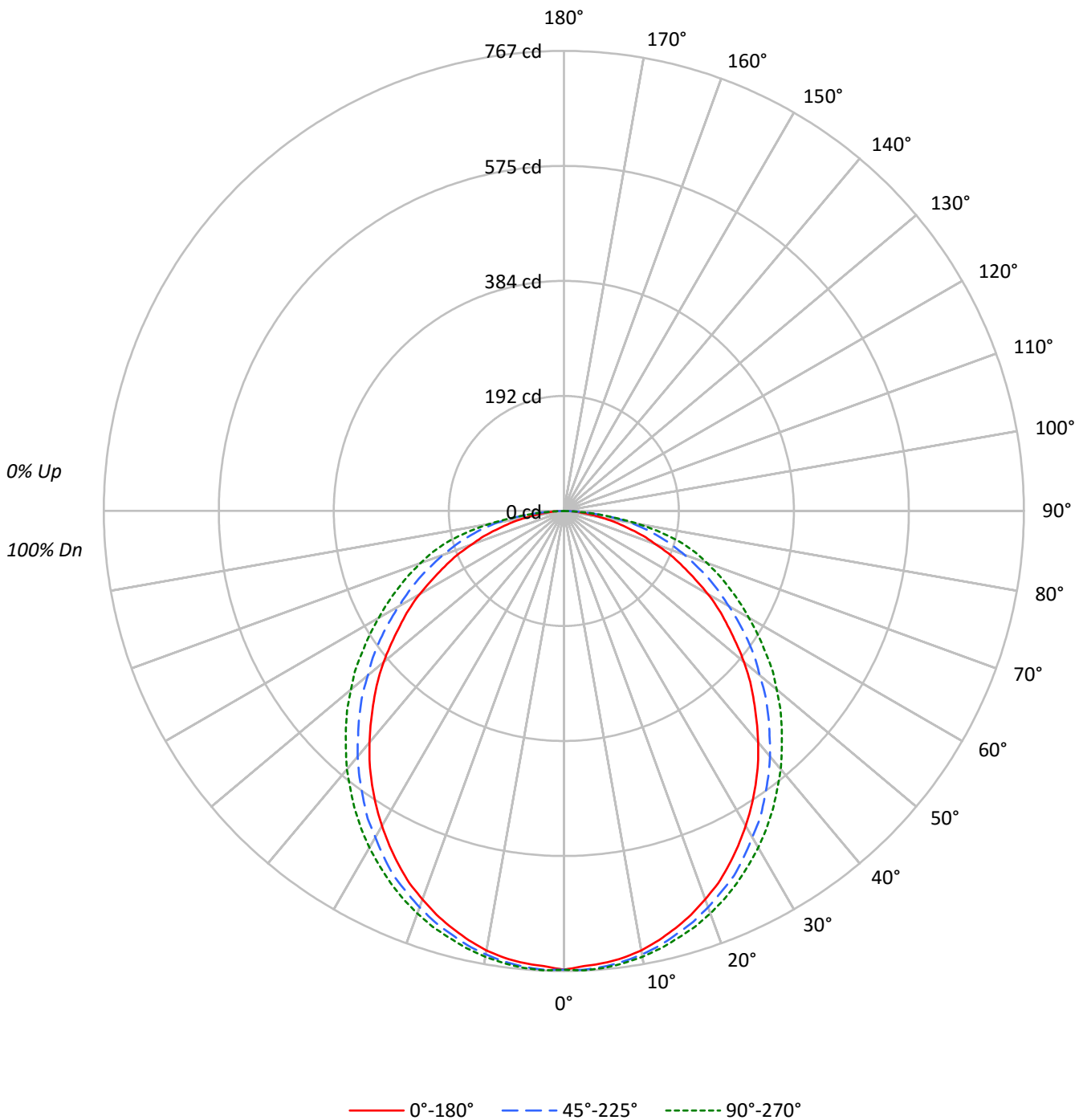
Lumens per Lamp: N/A  
Luminaire Lumens: 2134.0 lumens  
Efficiency: N/A  
Efficacy: 124.1 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.2  
Input Voltage (V): NR  
Input Current (A<sub>in</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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CATALOG NUMBER: 22FC22-20HE-UNV-L82765-S-CA08-W2A-U-5500K

**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°	2058	2058	2058
5°	2044	2060	2066
10°	2032	2051	2062
15°	2006	2033	2053
20°	1973	2013	2044
25°	1934	1993	2031
30°	1884	1952	2014
35°	1832	1917	1995
40°	1770	1878	1976
45°	1705	1834	1955
50°	1642	1784	1938
55°	1565	1752	1924
60°	1495	1709	1919
65°	1394	1699	1940
70°	1285	1685	1998
75°	1159	1708	2101
80°	1003	1759	1974
85°	831	1476	1476



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.3	3.4
10°-20°	205.8	9.6
20°-30°	307.9	14.4
30°-40°	364.7	17.1
40°-50°	371.6	17.4
50°-60°	333.1	15.6
60°-70°	260.8	12.2
70°-80°	168.2	7.9
80°-90°	49.7	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°	586.0	27.5
0°-40°	950.7	44.6
0°-60°	1655.4	77.6
0°-90°	2134.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2134.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	765	765	765	765	765	
5°	757	759	763	764	765	72
15°	720	724	730	736	737	203
25°	651	657	671	680	684	300
35°	558	564	584	601	607	348
45°	448	458	482	507	514	346
55°	334	344	373	399	410	299
65°	219	232	267	293	305	218
75°	112	128	164	192	202	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°	764.7	764.7	764.7	764.7	764.7
2.5°	759.7	761.7	765.7	766.7	766.7
5°	756.7	758.7	762.7	763.7	764.7
7.5°	751.7	752.7	757.7	759.7	760.7
10°	743.8	745.8	750.7	753.7	754.7
12.5°	732.8	735.8	741.8	745.8	746.8
15°	719.9	723.9	729.8	735.8	736.8
17.5°	705.9	709.9	717.9	724.9	726.8
20°	689.0	694.0	702.9	710.9	713.9
22.5°	672.1	676.1	687.0	697.0	700.0
25°	651.2	657.1	671.1	680.0	684.0
27.5°	629.3	636.2	650.2	662.1	666.1
30°	606.4	613.3	628.3	643.2	648.2
32.5°	582.5	590.4	608.4	623.3	628.3
35°	557.6	564.5	583.5	601.4	607.4
37.5°	531.7	537.7	559.6	578.5	584.5
40°	503.8	511.8	534.7	556.6	562.6
42.5°	475.9	484.9	507.8	531.7	537.7
45°	448.1	458.0	481.9	506.8	513.8
47.5°	421.2	429.1	456.0	479.9	489.9
50°	392.3	400.3	426.1	453.0	463.0
52.5°	362.4	373.4	401.3	427.1	439.1
55°	333.6	344.5	373.4	399.3	410.2
57.5°	306.7	315.6	345.5	372.4	383.3
60°	277.8	285.8	317.6	346.5	356.5
62.5°	246.9	258.9	291.7	318.6	330.6
65°	219.0	232.0	266.8	292.7	304.7
67.5°	193.2	205.1	239.0	266.8	279.8
70°	163.3	179.2	214.1	241.9	253.9
72.5°	139.4	153.3	189.2	217.1	230.0
75°	111.5	128.4	164.3	192.2	202.1
77.5°	88.6	105.5	139.4	161.3	166.3
80°	64.7	81.6	113.5	124.5	127.4
82.5°	43.8	59.7	81.6	84.6	85.6
85°	26.9	36.8	47.8	47.8	47.8
87.5°	12.9	14.9	16.9	15.9	15.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)