

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: P308606

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-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: P308606  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)  
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-CA08-W2A-U-5500K  
Description: 2'X2' TROFFER LED MODULE, RIBBED 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**

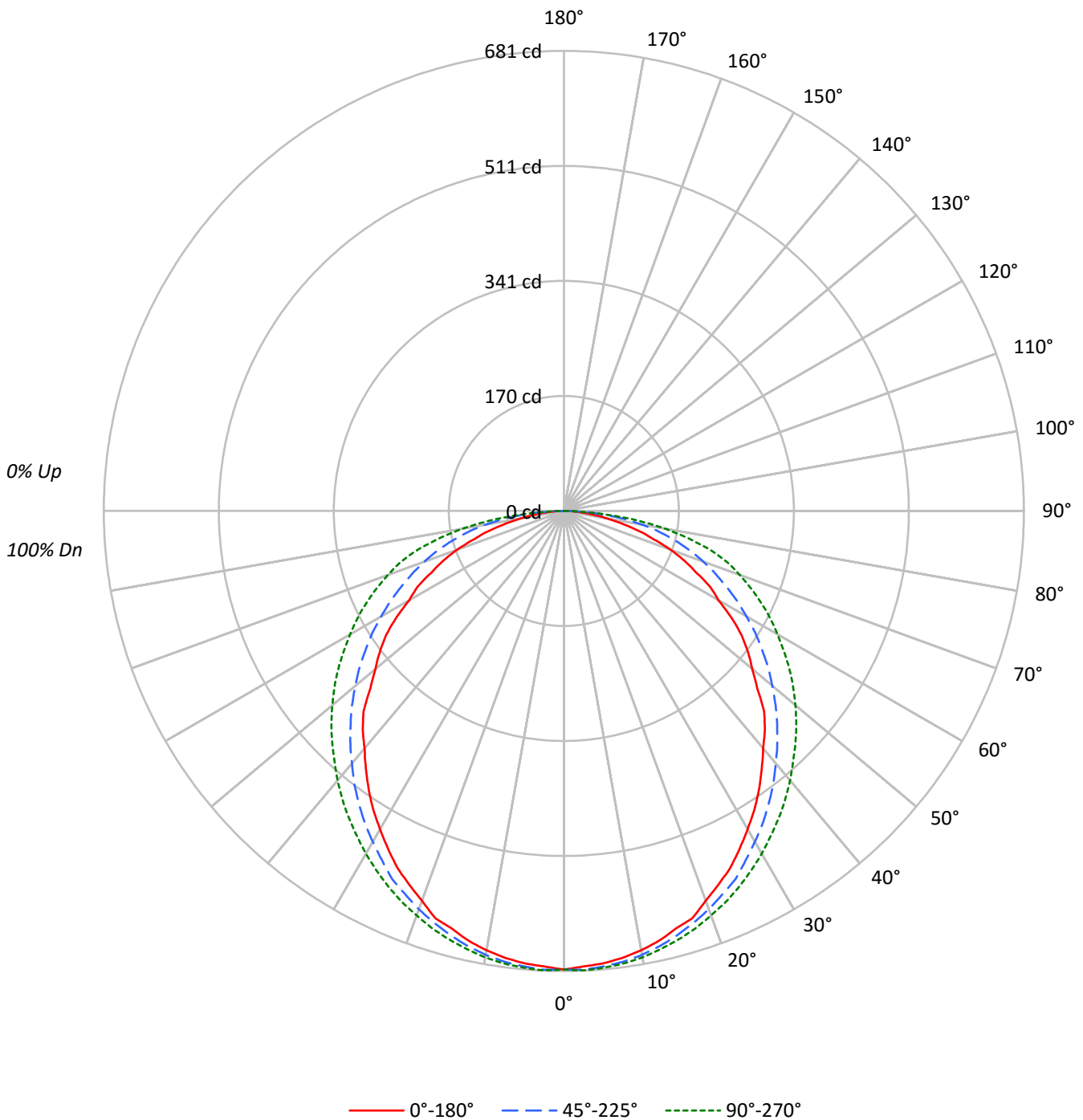
Lumens per Lamp: N/A  
Luminaire Lumens: 2023.0 lumens  
Efficiency: N/A  
Efficacy: 117.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.2  
Input Voltage (V): NR  
Input Current (A<sub>in</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	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

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

	0°	45°	90°
0°	1826	1826	1826
5°	1815	1828	1833
10°	1804	1823	1834
15°	1783	1810	1829
20°	1758	1797	1824
25°	1731	1785	1823
30°	1691	1757	1820
35°	1654	1737	1823
40°	1612	1714	1830
45°	1595	1699	1846
50°	1524	1686	1873
55°	1508	1681	1912
60°	1422	1678	1964
65°	1381	1689	2053
70°	1326	1729	2179
75°	1208	1782	2346
80°	1035	1846	2371
85°	837	1763	2032



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.2	3.2
10°-20°	183.2	9.1
20°-30°	275.8	13.6
30°-40°	331.0	16.4
40°-50°	345.9	17.1
50°-60°	322.4	15.9
60°-70°	264.4	13.1
70°-80°	178.2	8.8
80°-90°	58.0	2.9
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°	523.2	25.9
0°-40°	854.2	42.2
0°-60°	1522.4	75.3
0°-90°	2023.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2023.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	679	679	679	679	679	
5°	672	674	677	678	679	64
15°	640	644	650	656	656	181
25°	583	587	601	610	614	268
35°	504	510	529	547	555	315
45°	419	422	446	474	485	320
55°	322	327	358	392	408	285
65°	217	227	265	304	322	216
75°	116	129	171	210	226	122
85°	27	39	57	67	66	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	678.7	678.7	678.7	678.7	678.7
2.5°	674.9	676.8	679.7	680.7	680.7
5°	672.0	673.9	676.8	677.8	678.7
7.5°	667.1	669.1	672.9	674.9	675.8
10°	660.3	662.3	667.1	670.0	671.0
12.5°	651.6	653.6	659.4	663.2	664.2
15°	640.0	643.9	649.7	655.5	656.5
17.5°	632.3	631.3	639.0	645.8	647.8
20°	613.9	618.7	627.4	635.2	637.1
22.5°	598.4	602.2	613.9	622.6	626.4
25°	582.9	586.8	601.3	610.0	613.9
27.5°	563.5	569.3	582.9	595.5	600.3
30°	544.1	550.0	565.5	580.0	585.8
32.5°	524.8	531.6	548.0	563.5	570.3
35°	503.5	510.3	528.7	547.1	554.8
37.5°	481.2	489.9	509.3	529.6	538.3
40°	458.9	467.7	488.0	511.2	520.9
42.5°	440.5	444.4	467.7	492.8	502.5
45°	419.2	422.2	446.4	473.5	485.1
47.5°	388.3	398.9	425.1	455.1	466.7
50°	364.1	375.7	402.8	434.7	447.3
52.5°	343.7	351.5	381.5	413.4	428.0
55°	321.5	327.3	358.2	392.1	407.6
57.5°	294.3	305.0	336.0	370.8	386.3
60°	264.3	277.9	311.8	349.5	365.0
62.5°	245.0	252.7	289.5	327.3	344.7
65°	216.9	226.6	265.3	304.0	322.4
67.5°	193.6	203.3	243.0	281.8	300.2
70°	168.5	178.2	219.8	258.5	276.9
72.5°	139.4	153.0	196.6	235.3	254.6
75°	116.2	128.8	171.4	210.1	225.6
77.5°	90.0	106.5	146.2	178.2	189.8
80°	66.8	83.3	119.1	142.3	153.0
82.5°	45.5	62.0	89.1	106.5	112.3
85°	27.1	38.7	57.1	66.8	65.8
87.5°	12.6	16.5	23.2	23.2	22.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)