

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: P308896

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-S-CP125-W2A-U-6500K**

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: P308896  
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-CP125-W2A-U-6500K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.125" 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**

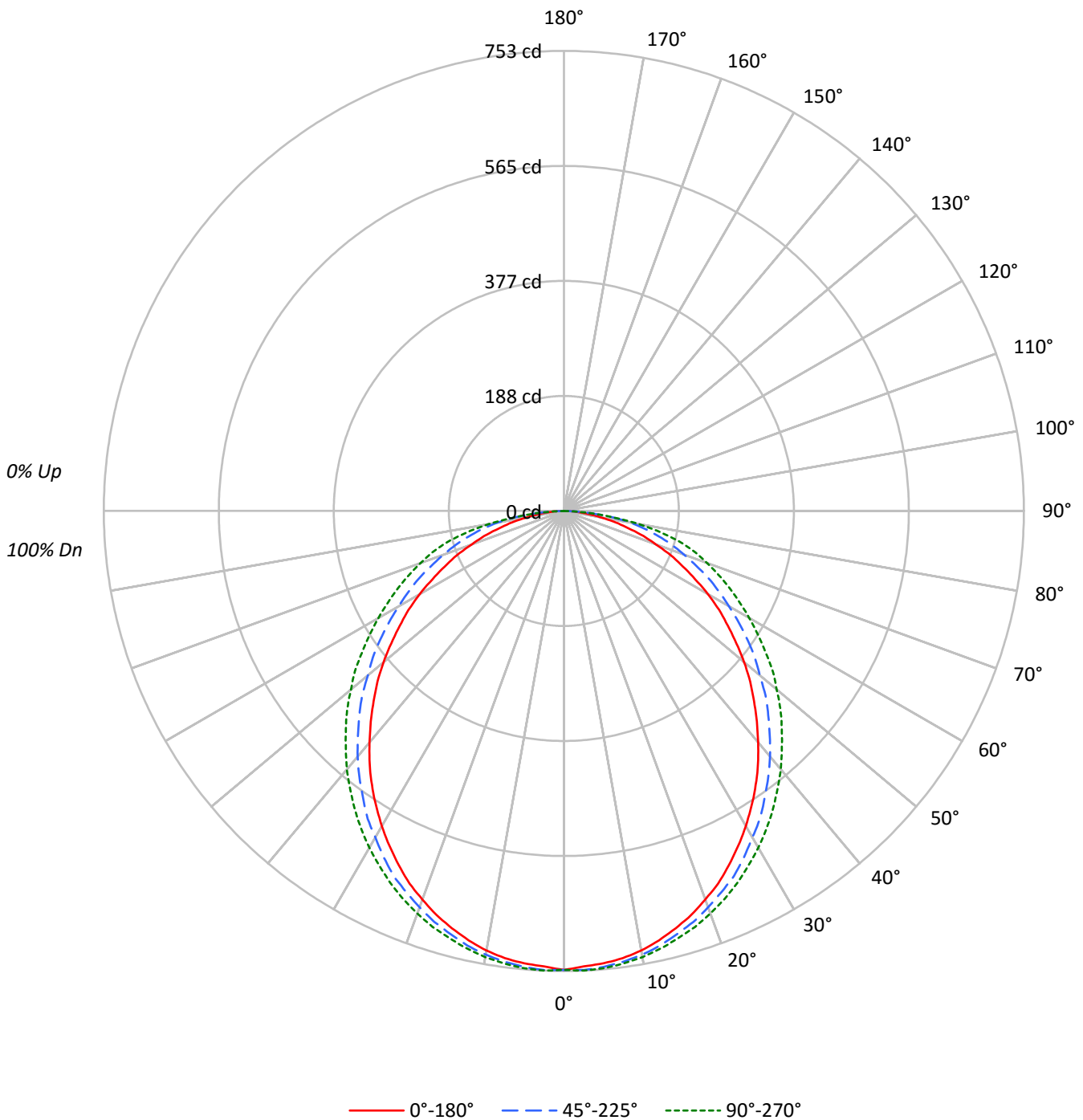
Lumens per Lamp: N/A  
Luminaire Lumens: 2096.0 lumens  
Efficiency: N/A  
Efficacy: 120.5 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.4  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2021	2021	2021
5°	2008	2024	2029
10°	1996	2015	2026
15°	1970	1997	2016
20°	1938	1977	2008
25°	1899	1957	1995
30°	1851	1917	1978
35°	1799	1883	1960
40°	1738	1845	1941
45°	1675	1801	1920
50°	1613	1752	1904
55°	1537	1720	1890
60°	1468	1679	1884
65°	1370	1669	1906
70°	1262	1655	1962
75°	1138	1678	2064
80°	986	1728	1940
85°	815	1448	1448



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.0	3.4
10°-20°	202.1	9.6
20°-30°	302.4	14.4
30°-40°	358.2	17.1
40°-50°	365.0	17.4
50°-60°	327.1	15.6
60°-70°	256.1	12.2
70°-80°	165.2	7.9
80°-90°	48.8	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°	575.6	27.5
0°-40°	933.8	44.5
0°-60°	1625.9	77.6
0°-90°	2096.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2096.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	751	751	751	751	751	
5°	743	745	749	750	751	71
15°	707	711	717	723	724	199
25°	640	645	659	668	672	294
35°	548	554	573	591	596	342
45°	440	450	473	498	505	340
55°	328	338	367	392	403	294
65°	215	228	262	288	299	214
75°	110	126	161	189	198	117
85°	26	36	47	47	47	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	751.1	751.1	751.1	751.1	751.1
2.5°	746.2	748.1	752.0	753.0	753.0
5°	743.2	745.2	749.1	750.1	751.1
7.5°	738.3	739.3	744.2	746.2	747.2
10°	730.5	732.5	737.4	740.3	741.3
12.5°	719.8	722.7	728.6	732.5	733.5
15°	707.1	711.0	716.8	722.7	723.7
17.5°	693.4	697.3	705.1	711.9	713.9
20°	676.7	681.6	690.4	698.3	701.2
22.5°	660.1	664.0	674.8	684.6	687.5
25°	639.6	645.4	659.1	667.9	671.8
27.5°	618.1	624.9	638.6	650.3	654.2
30°	595.6	602.4	617.1	631.8	636.6
32.5°	572.1	579.9	597.5	612.2	617.1
35°	547.6	554.5	573.1	590.7	596.5
37.5°	522.2	528.1	549.6	568.2	574.1
40°	494.8	502.7	525.2	546.7	552.5
42.5°	467.5	476.3	498.8	522.2	528.1
45°	440.1	449.9	473.3	497.8	504.6
47.5°	413.7	421.5	447.9	471.4	481.1
50°	385.3	393.1	418.6	445.0	454.7
52.5°	356.0	366.7	394.1	419.5	431.3
55°	327.6	338.4	366.7	392.2	402.9
57.5°	301.2	310.0	339.3	365.8	376.5
60°	272.8	280.7	312.0	340.3	350.1
62.5°	242.5	254.3	286.5	312.9	324.7
65°	215.1	227.9	262.1	287.5	299.3
67.5°	189.7	201.5	234.7	262.1	274.8
70°	160.4	176.0	210.3	237.6	249.4
72.5°	136.9	150.6	185.8	213.2	225.9
75°	109.5	126.2	161.4	188.7	198.5
77.5°	87.0	103.7	136.9	158.4	163.3
80°	63.6	80.2	111.5	122.2	125.2
82.5°	43.0	58.7	80.2	83.1	84.1
85°	26.4	36.2	46.9	46.9	46.9
87.5°	12.7	14.7	16.6	15.6	15.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)