

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: P308666

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-CP125-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: P308666  
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: 22FCZ2-24HE-UNV-L82765-CP125-W2A-U-4000K  
Description: 2'X2' TROFFER LED MODULE, RIBBED 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**

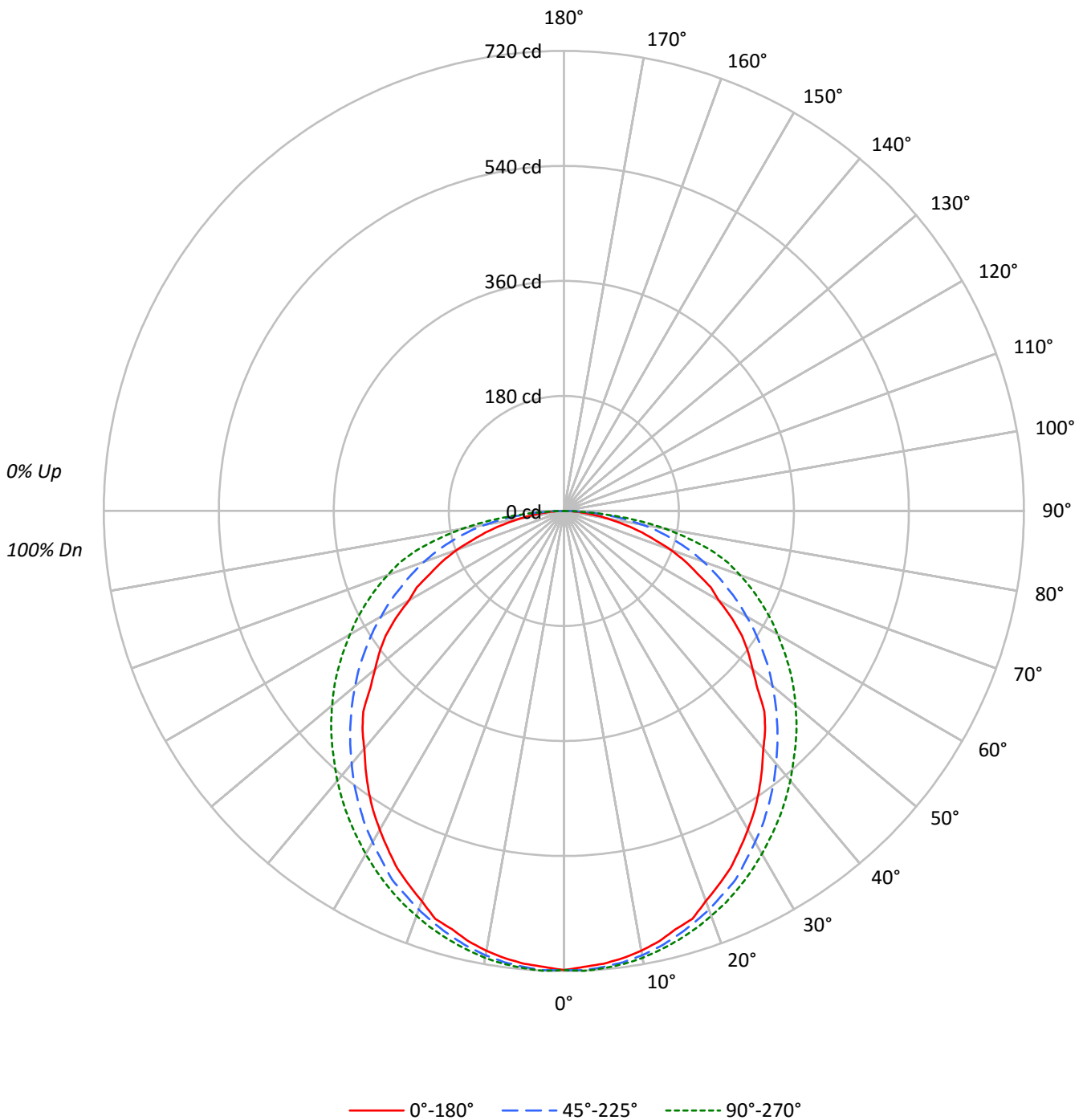
Lumens per Lamp: N/A  
Luminaire Lumens: 2141.0 lumens  
Efficiency: N/A  
Efficacy: 112.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.1  
Input Voltage (V): NR  
Input Current (A<sub>in</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



TEST NUMBER: P308666

CATALOG NUMBER: 22FCZ2-24HE-UNV-L82765-CP125-W2A-U-4000K

### Luminous Intensity Polar Plot





TEST NUMBER: P308666

CATALOG NUMBER: 22FCZ2-24HE-UNV-L82765-CP125-W2A-U-4000K

**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°	1933	1933	1933
5°	1921	1935	1940
10°	1910	1929	1940
15°	1887	1916	1936
20°	1861	1901	1931
25°	1832	1889	1929
30°	1789	1859	1927
35°	1751	1838	1929
40°	1706	1814	1937
45°	1689	1798	1954
50°	1613	1785	1982
55°	1596	1779	2024
60°	1505	1776	2079
65°	1461	1788	2173
70°	1403	1830	2306
75°	1279	1886	2483
80°	1096	1953	2509
85°	886	1868	2152



TEST NUMBER: P308666

CATALOG NUMBER: 22FCZ2-24HE-UNV-L82765-CP125-W2A-U-4000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.0	3.2
10°-20°	193.9	9.1
20°-30°	291.8	13.6
30°-40°	350.3	16.4
40°-50°	366.1	17.1
50°-60°	341.2	15.9
60°-70°	279.8	13.1
70°-80°	188.5	8.8
80°-90°	61.4	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°	553.7	25.9
0°-40°	904.0	42.2
0°-60°	1611.2	75.3
0°-90°	2141.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2141.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	718	718	718	718	718	
5°	711	713	716	717	718	68
15°	677	681	688	694	695	191
25°	617	621	636	646	650	284
35°	533	540	560	579	587	333
45°	444	447	472	501	513	339
55°	340	346	379	415	431	301
65°	230	240	281	322	341	228
75°	123	136	181	222	239	129
85°	29	41	60	71	70	34
90°	0	0	0	0	0	



TEST NUMBER: P308666

CATALOG NUMBER: 22FCZ2-24HE-UNV-L82765-CP125-W2A-U-4000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	718.3	718.3	718.3	718.3	718.3
2.5°	714.2	716.3	719.3	720.4	720.4
5°	711.2	713.2	716.3	717.3	718.3
7.5°	706.0	708.1	712.2	714.2	715.2
10°	698.9	700.9	706.0	709.1	710.1
12.5°	689.6	691.7	697.8	701.9	703.0
15°	677.3	681.4	687.6	693.7	694.8
17.5°	669.1	668.1	676.3	683.5	685.5
20°	649.7	654.8	664.0	672.2	674.3
22.5°	633.3	637.4	649.7	658.9	663.0
25°	616.9	621.0	636.3	645.6	649.7
27.5°	596.4	602.5	616.9	630.2	635.3
30°	575.9	582.0	598.4	613.8	620.0
32.5°	555.4	562.6	580.0	596.4	603.6
35°	532.9	540.0	559.5	579.0	587.2
37.5°	509.3	518.5	539.0	560.5	569.7
40°	485.7	494.9	516.5	541.0	551.3
42.5°	466.2	470.3	494.9	521.6	531.8
45°	443.7	446.8	472.4	501.1	513.4
47.5°	410.9	422.2	449.8	481.6	493.9
50°	385.3	397.6	426.3	460.1	473.4
52.5°	363.8	372.0	403.7	437.6	452.9
55°	340.2	346.4	379.1	415.0	431.4
57.5°	311.5	322.8	355.6	392.5	408.9
60°	279.7	294.1	330.0	369.9	386.3
62.5°	259.3	267.5	306.4	346.4	364.8
65°	229.5	239.8	280.8	321.8	341.2
67.5°	204.9	215.2	257.2	298.2	317.7
70°	178.3	188.5	232.6	273.6	293.1
72.5°	147.6	161.9	208.0	249.0	269.5
75°	123.0	136.3	181.4	222.4	238.8
77.5°	95.3	112.7	154.7	188.5	200.8
80°	70.7	88.1	126.0	150.6	161.9
82.5°	48.2	65.6	94.3	112.7	118.9
85°	28.7	41.0	60.5	70.7	69.7
87.5°	13.3	17.4	24.6	24.6	23.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)