

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: P308650

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-CA08-W2A-U-5000K**

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: P308650  
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-CA08-W2A-U-5000K  
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**

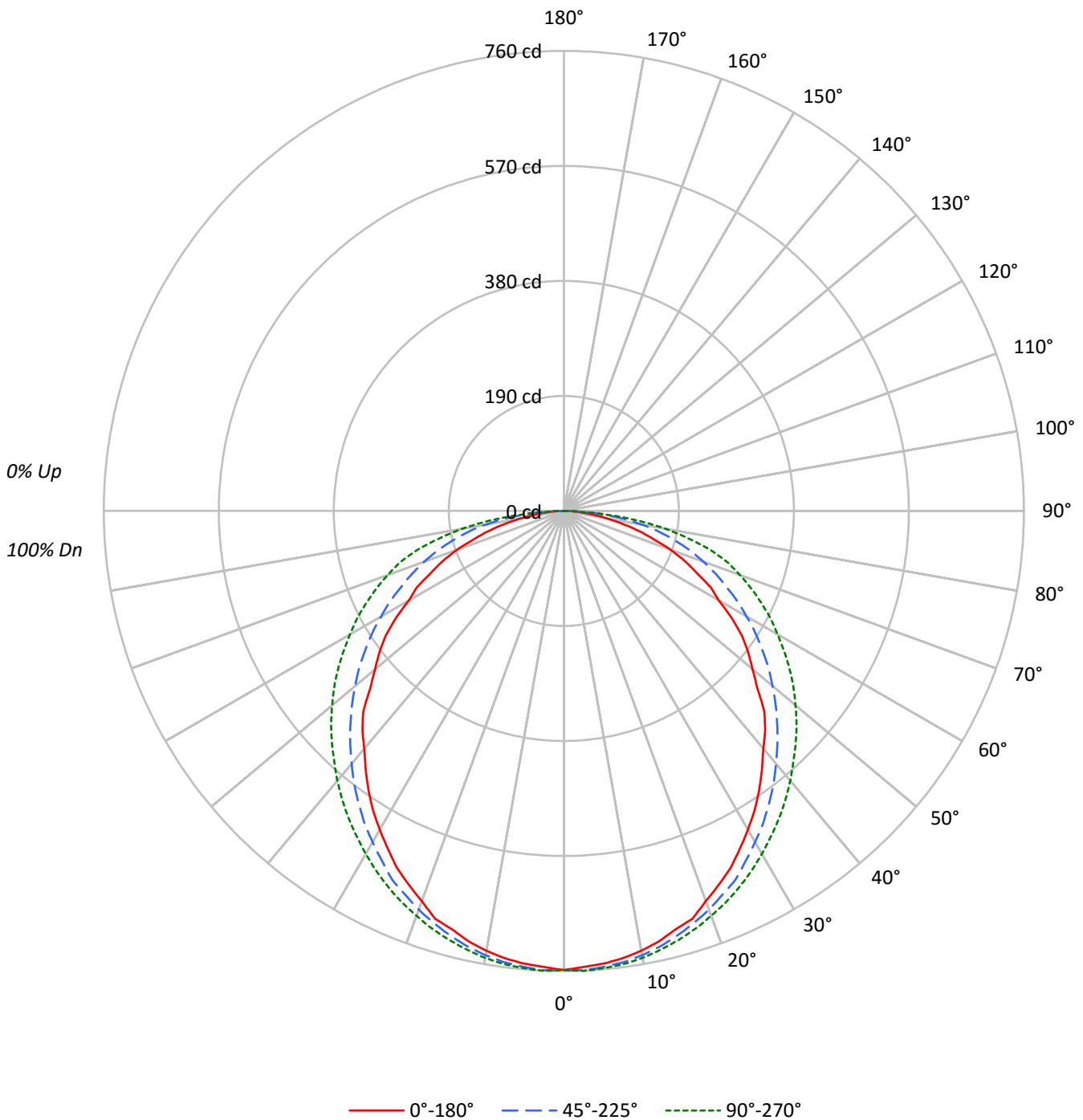
Lumens per Lamp: N/A  
Luminaire Lumens: 2260.0 lumens  
Efficiency: N/A  
Efficacy: 117.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.3  
Input Voltage (V): NR  
Input Current (A<sub>in</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: P308650

CATALOG NUMBER: 22FCZ2-24HE-UNV-L82765-CA08-W2A-U-5000K

### Luminous Intensity Polar Plot





TEST NUMBER: P308650

CATALOG NUMBER: 22FCZ2-24HE-UNV-L82765-CA08-W2A-U-5000K

**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°	2040	2040	2040
5°	2028	2042	2048
10°	2016	2037	2048
15°	1992	2022	2043
20°	1964	2007	2038
25°	1934	1994	2036
30°	1889	1963	2033
35°	1848	1940	2036
40°	1801	1915	2044
45°	1783	1897	2062
50°	1703	1884	2092
55°	1685	1878	2137
60°	1589	1875	2195
65°	1543	1887	2294
70°	1481	1932	2434
75°	1350	1991	2620
80°	1156	2061	2648
85°	936	1970	2272



TEST NUMBER: P308650

CATALOG NUMBER: 22FCZ2-24HE-UNV-L82765-CA08-W2A-U-5000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.7	3.2
10°-20°	204.7	9.1
20°-30°	308.1	13.6
30°-40°	369.7	16.4
40°-50°	386.4	17.1
50°-60°	360.1	15.9
60°-70°	295.4	13.1
70°-80°	199.0	8.8
80°-90°	64.8	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°	584.5	25.9
0°-40°	954.2	42.2
0°-60°	1700.8	75.3
0°-90°	2260.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2260.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	758	758	758	758	758	
5°	751	753	756	757	758	71
15°	715	719	726	732	733	202
25°	651	656	672	682	686	299
35°	562	570	591	611	620	352
45°	468	472	499	529	542	358
55°	359	366	400	438	455	318
65°	242	253	296	340	360	241
75°	130	144	192	235	252	136
85°	30	43	64	75	74	36
90°	0	0	0	0	0	



TEST NUMBER: P308650

CATALOG NUMBER: 22FCZ2-24HE-UNV-L82765-CA08-W2A-U-5000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	758.2	758.2	758.2	758.2	758.2
2.5°	753.9	756.1	759.3	760.4	760.4
5°	750.7	752.8	756.1	757.2	758.2
7.5°	745.3	747.4	751.8	753.9	755.0
10°	737.7	739.9	745.3	748.5	749.6
12.5°	728.0	730.1	736.6	740.9	742.0
15°	715.0	719.3	725.8	732.3	733.4
17.5°	706.3	705.2	713.9	721.5	723.6
20°	685.8	691.2	700.9	709.6	711.7
22.5°	668.5	672.8	685.8	695.5	699.8
25°	651.2	655.5	671.7	681.5	685.8
27.5°	629.5	636.0	651.2	665.2	670.6
30°	607.9	614.4	631.7	647.9	654.4
32.5°	586.3	593.8	612.2	629.5	637.1
35°	562.5	570.0	590.6	611.1	619.8
37.5°	537.6	547.3	569.0	591.7	601.4
40°	512.7	522.4	545.2	571.1	581.9
42.5°	492.2	496.5	522.4	550.6	561.4
45°	468.4	471.6	498.6	528.9	541.9
47.5°	433.7	445.6	474.9	508.4	521.4
50°	406.7	419.7	450.0	485.7	499.7
52.5°	384.0	392.6	426.2	461.9	478.1
55°	359.1	365.6	400.2	438.1	455.4
57.5°	328.8	340.7	375.3	414.3	431.6
60°	295.3	310.4	348.3	390.5	407.8
62.5°	273.7	282.3	323.4	365.6	385.1
65°	242.3	253.1	296.4	339.6	360.2
67.5°	216.3	227.2	271.5	314.8	335.3
70°	188.2	199.0	245.5	288.8	309.4
72.5°	155.8	170.9	219.6	262.8	284.5
75°	129.8	143.9	191.5	234.7	252.0
77.5°	100.6	119.0	163.3	199.0	212.0
80°	74.6	93.0	133.0	159.0	170.9
82.5°	50.8	69.2	99.5	119.0	125.5
85°	30.3	43.3	63.8	74.6	73.6
87.5°	14.1	18.4	26.0	26.0	24.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)