

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: P308658

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-CA125-W2A-U-4500K**

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: P308658  
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-CA125-W2A-U-4500K  
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.125" 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**

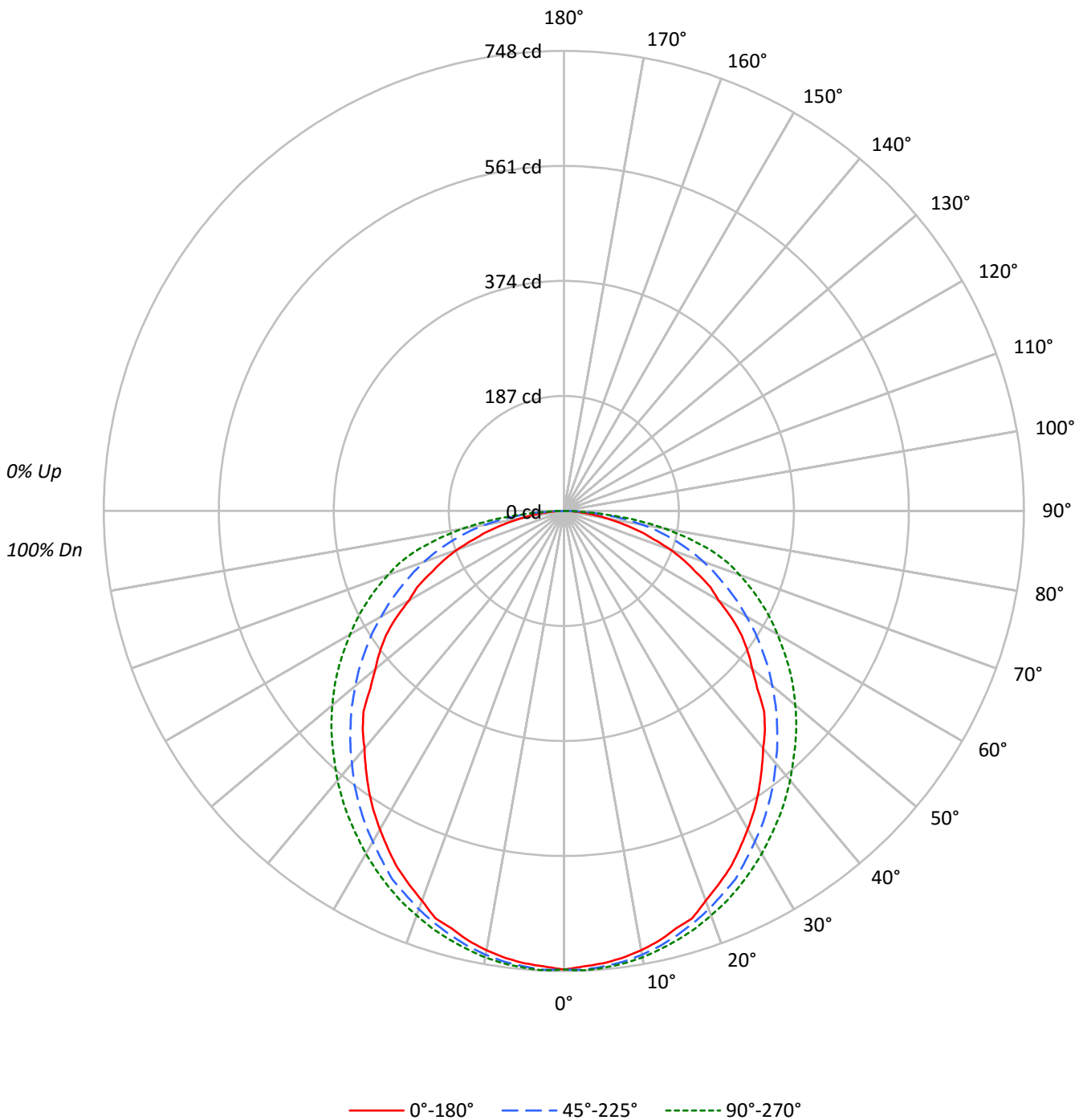
Lumens per Lamp: N/A  
Luminaire Lumens: 2222.0 lumens  
Efficiency: N/A  
Efficacy: 115.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.3  
Input Voltage (V): NR  
Input Current (A<sub>in</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



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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°	2006	2006	2006
5°	1994	2008	2014
10°	1982	2002	2014
15°	1958	1988	2009
20°	1931	1973	2004
25°	1901	1961	2002
30°	1857	1930	1999
35°	1817	1908	2002
40°	1771	1883	2010
45°	1752	1866	2028
50°	1674	1852	2057
55°	1657	1846	2100
60°	1562	1843	2158
65°	1517	1855	2255
70°	1456	1899	2393
75°	1327	1957	2576
80°	1137	2027	2603
85°	920	1936	2232



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.5	3.2
10°-20°	201.2	9.1
20°-30°	302.9	13.6
30°-40°	363.5	16.4
40°-50°	379.9	17.1
50°-60°	354.1	15.9
60°-70°	290.4	13.1
70°-80°	195.7	8.8
80°-90°	63.7	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°	574.6	25.9
0°-40°	938.2	42.2
0°-60°	1672.2	75.3
0°-90°	2222.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2222.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	746	746	746	746	746	
5°	738	740	743	744	746	70
15°	703	707	714	720	721	199
25°	640	644	660	670	674	294
35°	553	560	581	601	609	346
45°	460	464	490	520	533	352
55°	353	360	394	431	448	313
65°	238	249	291	334	354	237
75°	128	141	188	231	248	134
85°	30	42	63	73	72	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	745.5	745.5	745.5	745.5	745.5
2.5°	741.2	743.4	746.6	747.6	747.6
5°	738.1	740.2	743.4	744.4	745.5
7.5°	732.7	734.9	739.1	741.2	742.3
10°	725.3	727.4	732.7	735.9	737.0
12.5°	715.7	717.8	724.2	728.5	729.5
15°	703.0	707.2	713.6	720.0	721.0
17.5°	694.5	693.4	701.9	709.3	711.5
20°	674.2	679.6	689.1	697.6	699.8
22.5°	657.2	661.5	674.2	683.8	688.1
25°	640.2	644.5	660.4	670.0	674.2
27.5°	618.9	625.3	640.2	654.0	659.4
30°	597.7	604.1	621.1	637.0	643.4
32.5°	576.4	583.9	601.9	618.9	626.4
35°	553.0	560.5	580.7	600.9	609.4
37.5°	528.5	538.1	559.4	581.7	591.3
40°	504.1	513.7	536.0	561.5	572.2
42.5°	483.9	488.1	513.7	541.3	551.9
45°	460.5	463.7	490.3	520.0	532.8
47.5°	426.5	438.2	466.9	499.8	512.6
50°	399.9	412.6	442.4	477.5	491.3
52.5°	377.5	386.0	419.0	454.1	470.1
55°	353.1	359.5	393.5	430.7	447.7
57.5°	323.3	335.0	369.0	407.3	424.3
60°	290.3	305.2	342.4	383.9	400.9
62.5°	269.1	277.6	318.0	359.5	378.6
65°	238.2	248.9	291.4	333.9	354.1
67.5°	212.7	223.3	266.9	309.5	329.7
70°	185.0	195.7	241.4	283.9	304.2
72.5°	153.1	168.0	215.9	258.4	279.7
75°	127.6	141.4	188.2	230.8	247.8
77.5°	98.9	117.0	160.6	195.7	208.4
80°	73.4	91.5	130.8	156.3	168.0
82.5°	50.0	68.1	97.8	117.0	123.4
85°	29.8	42.5	62.7	73.4	72.3
87.5°	13.8	18.1	25.5	25.5	24.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)