

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: P308661

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-CA125-W2A-U-5700K**

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: P308661  
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-5700K  
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**

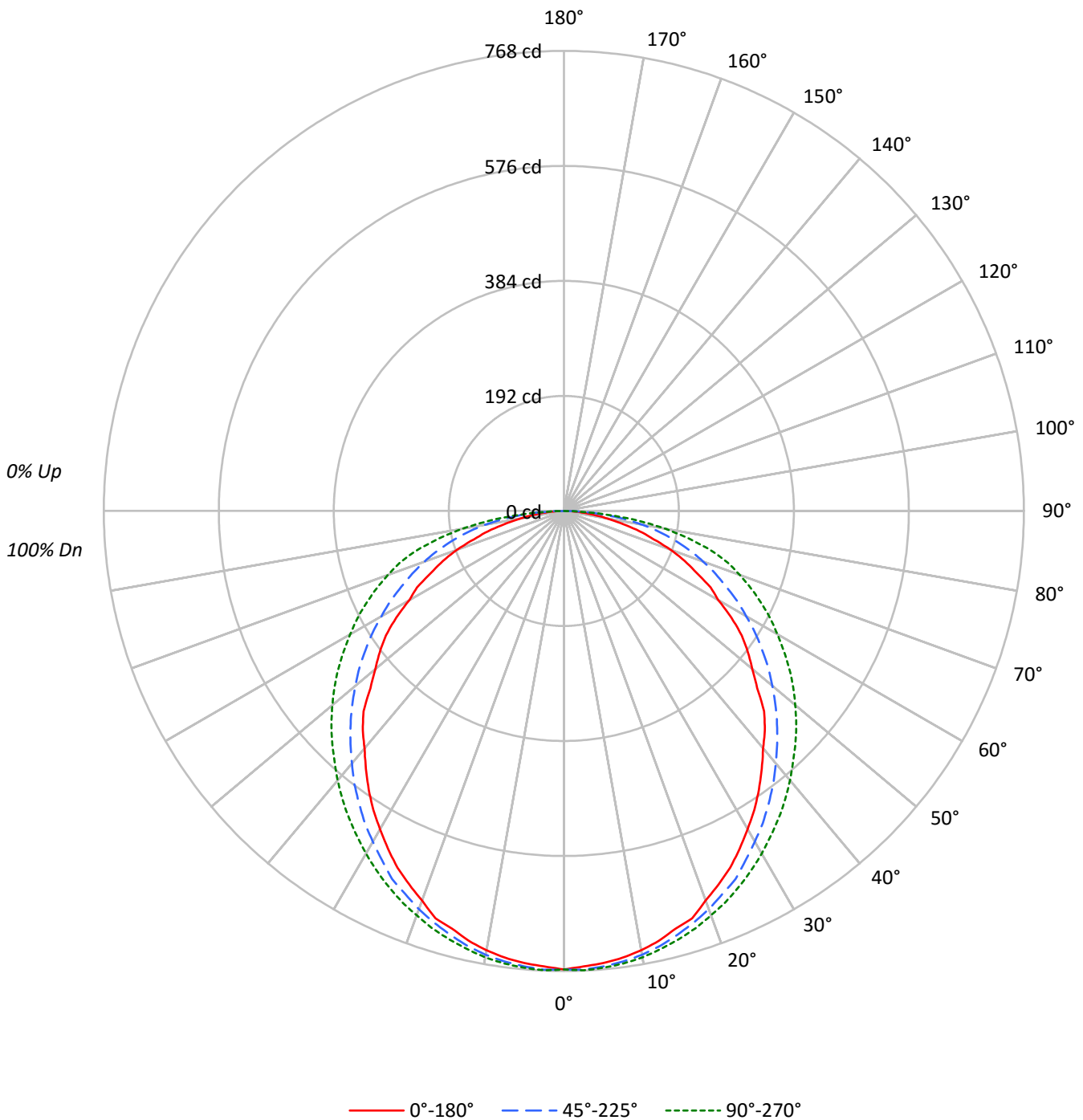
Lumens per Lamp: N/A  
Luminaire Lumens: 2281.0 lumens  
Efficiency: N/A  
Efficacy: 117.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.4  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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°	2059	2059	2059
5°	2047	2061	2067
10°	2035	2055	2067
15°	2010	2041	2062
20°	1982	2026	2057
25°	1951	2013	2055
30°	1906	1981	2052
35°	1865	1958	2055
40°	1818	1933	2063
45°	1799	1915	2082
50°	1719	1901	2112
55°	1701	1895	2156
60°	1604	1892	2215
65°	1557	1904	2315
70°	1495	1950	2456
75°	1362	2009	2645
80°	1167	2081	2673
85°	945	1988	2291



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.4	3.2
10°-20°	206.6	9.1
20°-30°	310.9	13.6
30°-40°	373.2	16.4
40°-50°	390.0	17.1
50°-60°	363.5	15.9
60°-70°	298.1	13.1
70°-80°	200.9	8.8
80°-90°	65.4	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°	589.9	25.9
0°-40°	963.1	42.2
0°-60°	1716.6	75.3
0°-90°	2281.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2281.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	765	765	765	765	765	
5°	758	760	763	764	765	72
15°	722	726	732	739	740	204
25°	657	662	678	688	692	302
35°	568	575	596	617	626	355
45°	473	476	503	534	547	361
55°	362	369	404	442	460	321
65°	244	256	299	343	364	243
75°	131	145	193	237	254	138
85°	31	44	64	75	74	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	765.3	765.3	765.3	765.3	765.3
2.5°	760.9	763.1	766.4	767.5	767.5
5°	757.7	759.8	763.1	764.2	765.3
7.5°	752.2	754.4	758.7	760.9	762.0
10°	744.6	746.7	752.2	755.5	756.6
12.5°	734.7	736.9	743.5	747.8	748.9
15°	721.6	726.0	732.5	739.1	740.2
17.5°	712.9	711.8	720.5	728.2	730.4
20°	692.1	697.6	707.4	716.2	718.4
22.5°	674.7	679.0	692.1	702.0	706.3
25°	657.2	661.6	678.0	687.8	692.1
27.5°	635.4	641.9	657.2	671.4	676.9
30°	613.5	620.1	637.6	653.9	660.5
32.5°	591.7	599.4	617.9	635.4	643.0
35°	567.7	575.3	596.1	616.8	625.6
37.5°	542.6	552.4	574.2	597.2	607.0
40°	517.5	527.3	550.2	576.4	587.3
42.5°	496.7	501.1	527.3	555.7	566.6
45°	472.7	476.0	503.3	533.9	547.0
47.5°	437.8	449.8	479.3	513.1	526.2
50°	410.5	423.6	454.2	490.2	504.4
52.5°	387.6	396.3	430.1	466.2	482.5
55°	362.5	369.0	403.9	442.1	459.6
57.5°	331.9	343.9	378.8	418.1	435.6
60°	298.0	313.3	351.5	394.1	411.6
62.5°	276.2	284.9	326.4	369.0	388.7
65°	244.5	255.5	299.1	342.8	363.5
67.5°	218.3	229.3	274.0	317.7	338.4
70°	190.0	200.9	247.8	291.5	312.2
72.5°	157.2	172.5	221.6	265.3	287.1
75°	131.0	145.2	193.2	236.9	254.4
77.5°	101.5	120.1	164.8	200.9	214.0
80°	75.3	93.9	134.3	160.5	172.5
82.5°	51.3	69.9	100.4	120.1	126.6
85°	30.6	43.7	64.4	75.3	74.2
87.5°	14.2	18.6	26.2	26.2	25.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)