

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: P312770

Luminaire Tested: **22FCZ2-24HE-UNV-L83050-CA125-W2A-U-3000K**

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: P312770  
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-L83050-CA125-W2A-U-3000K  
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**

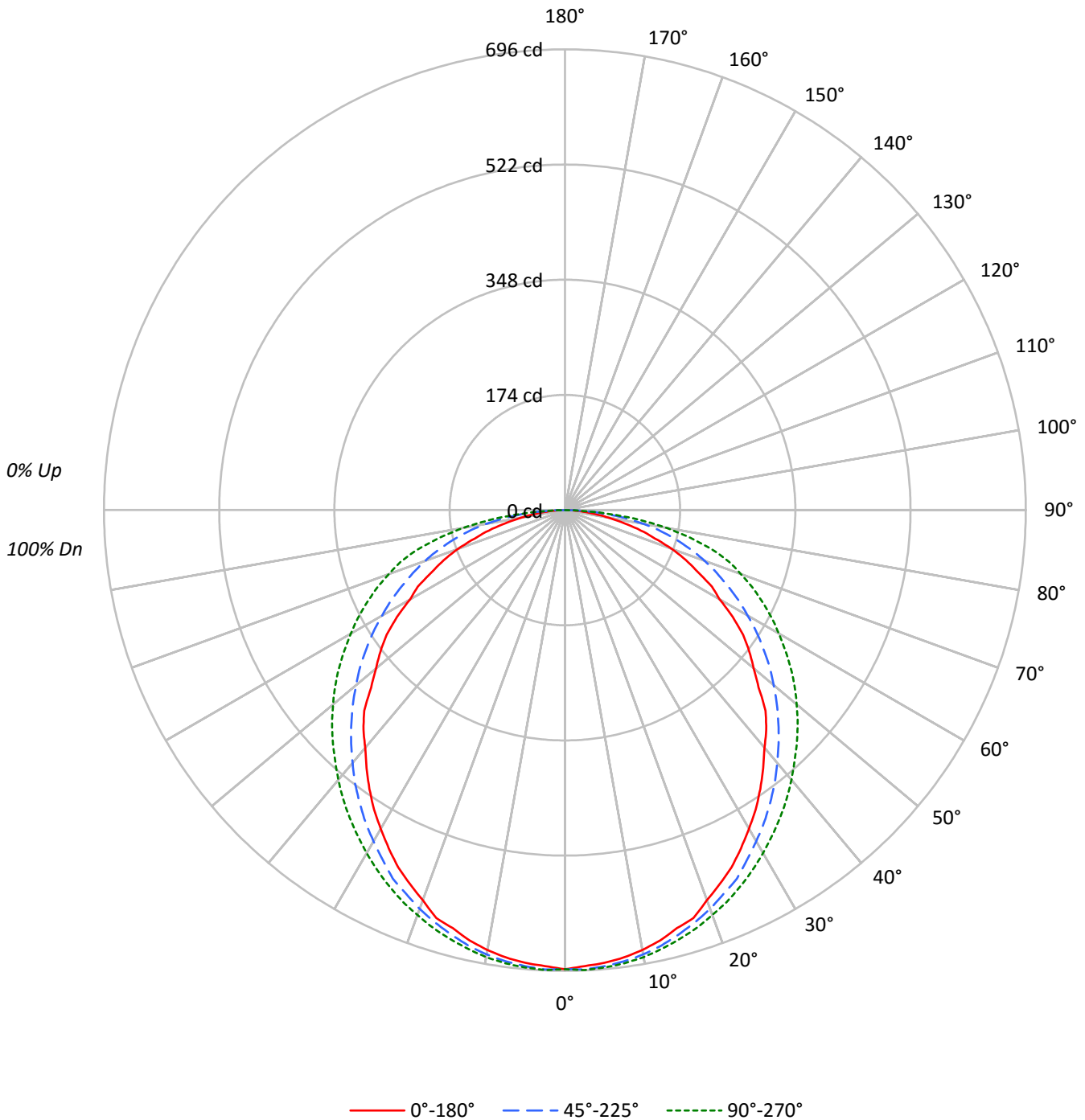
Lumens per Lamp: N/A  
Luminaire Lumens: 2067.0 lumens  
Efficiency: N/A  
Efficacy: 109.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 18.9  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	1866	1866	1866
5°	1855	1868	1873
10°	1844	1862	1873
15°	1822	1849	1869
20°	1796	1836	1864
25°	1768	1824	1862
30°	1728	1795	1860
35°	1690	1775	1862
40°	1647	1751	1870
45°	1630	1736	1886
50°	1557	1723	1914
55°	1541	1717	1954
60°	1454	1715	2007
65°	1411	1726	2097
70°	1354	1767	2226
75°	1234	1821	2397
80°	1058	1886	2422
85°	855	1803	2078



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.6	3.2
10°-20°	187.2	9.1
20°-30°	281.8	13.6
30°-40°	338.2	16.4
40°-50°	353.4	17.1
50°-60°	329.4	15.9
60°-70°	270.1	13.1
70°-80°	182.0	8.8
80°-90°	59.3	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°	534.6	25.9
0°-40°	872.7	42.2
0°-60°	1555.5	75.3
0°-90°	2067.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2067.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	694	694	694	694	694	
5°	687	688	692	692	694	65
15°	654	658	664	670	671	185
25°	596	600	614	623	627	274
35°	514	521	540	559	567	322
45°	428	431	456	484	496	327
55°	328	334	366	401	416	291
65°	222	232	271	311	329	220
75°	119	132	175	215	230	125
85°	28	40	58	68	67	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	693.5	693.5	693.5	693.5	693.5
2.5°	689.5	691.5	694.5	695.5	695.5
5°	686.6	688.5	691.5	692.5	693.5
7.5°	681.6	683.6	687.6	689.5	690.5
10°	674.7	676.7	681.6	684.6	685.6
12.5°	665.8	667.8	673.7	677.7	678.7
15°	653.9	657.9	663.8	669.8	670.7
17.5°	646.0	645.0	652.9	659.9	661.8
20°	627.2	632.2	641.1	649.0	651.0
22.5°	611.4	615.3	627.2	636.1	640.1
25°	595.6	599.5	614.4	623.3	627.2
27.5°	575.8	581.7	595.6	608.4	613.4
30°	556.0	561.9	577.7	592.6	598.5
32.5°	536.2	543.1	559.9	575.8	582.7
35°	514.4	521.4	540.2	559.0	566.9
37.5°	491.7	500.6	520.4	541.1	550.0
40°	468.9	477.8	498.6	522.3	532.2
42.5°	450.1	454.1	477.8	503.6	513.4
45°	428.4	431.3	456.1	483.8	495.6
47.5°	396.7	407.6	434.3	465.0	476.8
50°	372.0	383.8	411.5	444.2	457.1
52.5°	351.2	359.1	389.8	422.4	437.3
55°	328.4	334.4	366.0	400.7	416.5
57.5°	300.7	311.6	343.3	378.9	394.7
60°	270.1	283.9	318.6	357.1	373.0
62.5°	250.3	258.2	295.8	334.4	352.2
65°	221.6	231.5	271.1	310.6	329.4
67.5°	197.9	207.8	248.3	287.9	306.7
70°	172.1	182.0	224.6	264.1	282.9
72.5°	142.5	156.3	200.8	240.4	260.2
75°	118.7	131.6	175.1	214.7	230.5
77.5°	92.0	108.8	149.4	182.0	193.9
80°	68.3	85.1	121.7	145.4	156.3
82.5°	46.5	63.3	91.0	108.8	114.8
85°	27.7	39.6	58.4	68.3	67.3
87.5°	12.9	16.8	23.7	23.7	22.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)