

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: P308663

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-CP125-W2A-U-2700K**

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: P308663  
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-2700K  
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**

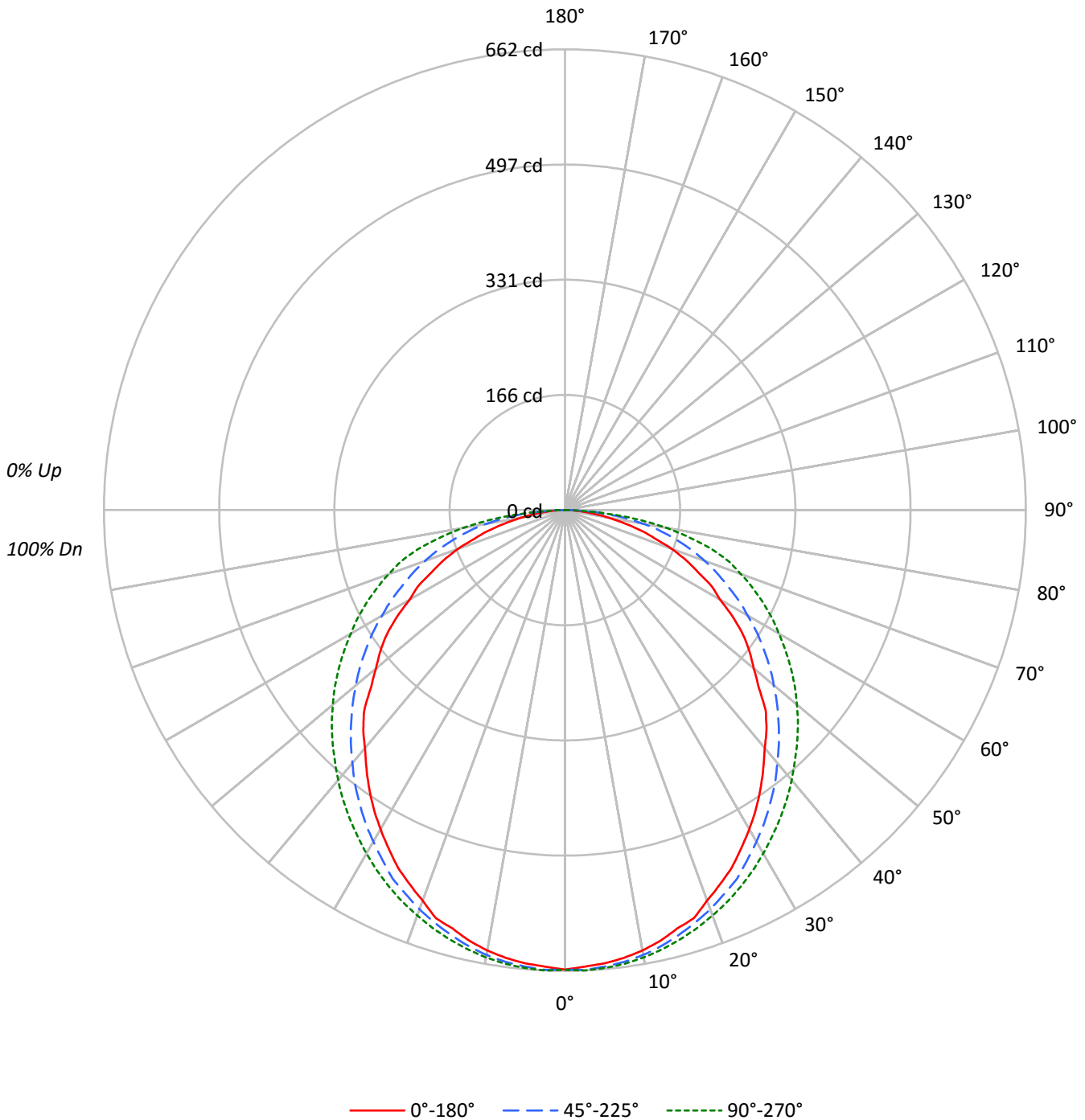
Lumens per Lamp: N/A  
Luminaire Lumens: 1968.0 lumens  
Efficiency: N/A  
Efficacy: 104.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 18.9  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	1777	1777	1777
5°	1766	1779	1784
10°	1755	1773	1783
15°	1735	1761	1779
20°	1710	1748	1775
25°	1684	1737	1773
30°	1645	1709	1771
35°	1609	1690	1773
40°	1568	1668	1780
45°	1552	1652	1796
50°	1483	1640	1822
55°	1467	1635	1860
60°	1384	1632	1911
65°	1344	1643	1997
70°	1290	1682	2120
75°	1175	1733	2282
80°	1007	1796	2306
85°	815	1717	1979



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.5	3.2
10°-20°	178.2	9.1
20°-30°	268.3	13.6
30°-40°	322.0	16.4
40°-50°	336.5	17.1
50°-60°	313.6	15.9
60°-70°	257.2	13.1
70°-80°	173.3	8.8
80°-90°	56.5	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°	509.0	25.9
0°-40°	830.9	42.2
0°-60°	1481.0	75.3
0°-90°	1968.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1968.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	660	660	660	660	660	
5°	654	656	658	659	660	62
15°	623	626	632	638	639	176
25°	567	571	585	593	597	261
35°	490	496	514	532	540	306
45°	408	411	434	461	472	312
55°	313	318	348	382	396	277
65°	211	220	258	296	314	210
75°	113	125	167	204	220	119
85°	26	38	56	65	64	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	660.3	660.3	660.3	660.3	660.3
2.5°	656.5	658.4	661.2	662.2	662.2
5°	653.7	655.6	658.4	659.3	660.3
7.5°	649.0	650.9	654.6	656.5	657.5
10°	642.4	644.3	649.0	651.8	652.7
12.5°	633.9	635.8	641.4	645.2	646.2
15°	622.6	626.4	632.0	637.7	638.6
17.5°	615.1	614.1	621.7	628.3	630.1
20°	597.2	601.9	610.4	617.9	619.8
22.5°	582.1	585.9	597.2	605.6	609.4
25°	567.0	570.8	584.9	593.4	597.2
27.5°	548.2	553.8	567.0	579.3	584.0
30°	529.4	535.0	550.1	564.2	569.9
32.5°	510.5	517.1	533.1	548.2	554.8
35°	489.8	496.4	514.3	532.2	539.7
37.5°	468.1	476.6	495.4	515.2	523.7
40°	446.5	454.9	474.7	497.3	506.7
42.5°	428.6	432.3	454.9	479.4	488.9
45°	407.8	410.7	434.2	460.6	471.9
47.5°	377.7	388.1	413.5	442.7	454.0
50°	354.2	365.5	391.8	422.9	435.2
52.5°	334.4	341.9	371.1	402.2	416.3
55°	312.7	318.4	348.5	381.5	396.5
57.5°	286.3	296.7	326.8	360.8	375.8
60°	257.1	270.3	303.3	340.0	355.1
62.5°	238.3	245.8	281.6	318.4	335.3
65°	211.0	220.4	258.1	295.8	313.7
67.5°	188.4	197.8	236.4	274.1	292.0
70°	163.9	173.3	213.8	251.5	269.4
72.5°	135.6	148.8	191.2	228.9	247.7
75°	113.0	125.3	166.7	204.4	219.5
77.5°	87.6	103.6	142.2	173.3	184.6
80°	65.0	81.0	115.9	138.5	148.8
82.5°	44.3	60.3	86.7	103.6	109.3
85°	26.4	37.7	55.6	65.0	64.1
87.5°	12.2	16.0	22.6	22.6	21.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)