

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: P308683

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-CP250-W2A-U-3500K**

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: P308683  
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-CP250-W2A-U-3500K  
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.250" 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**

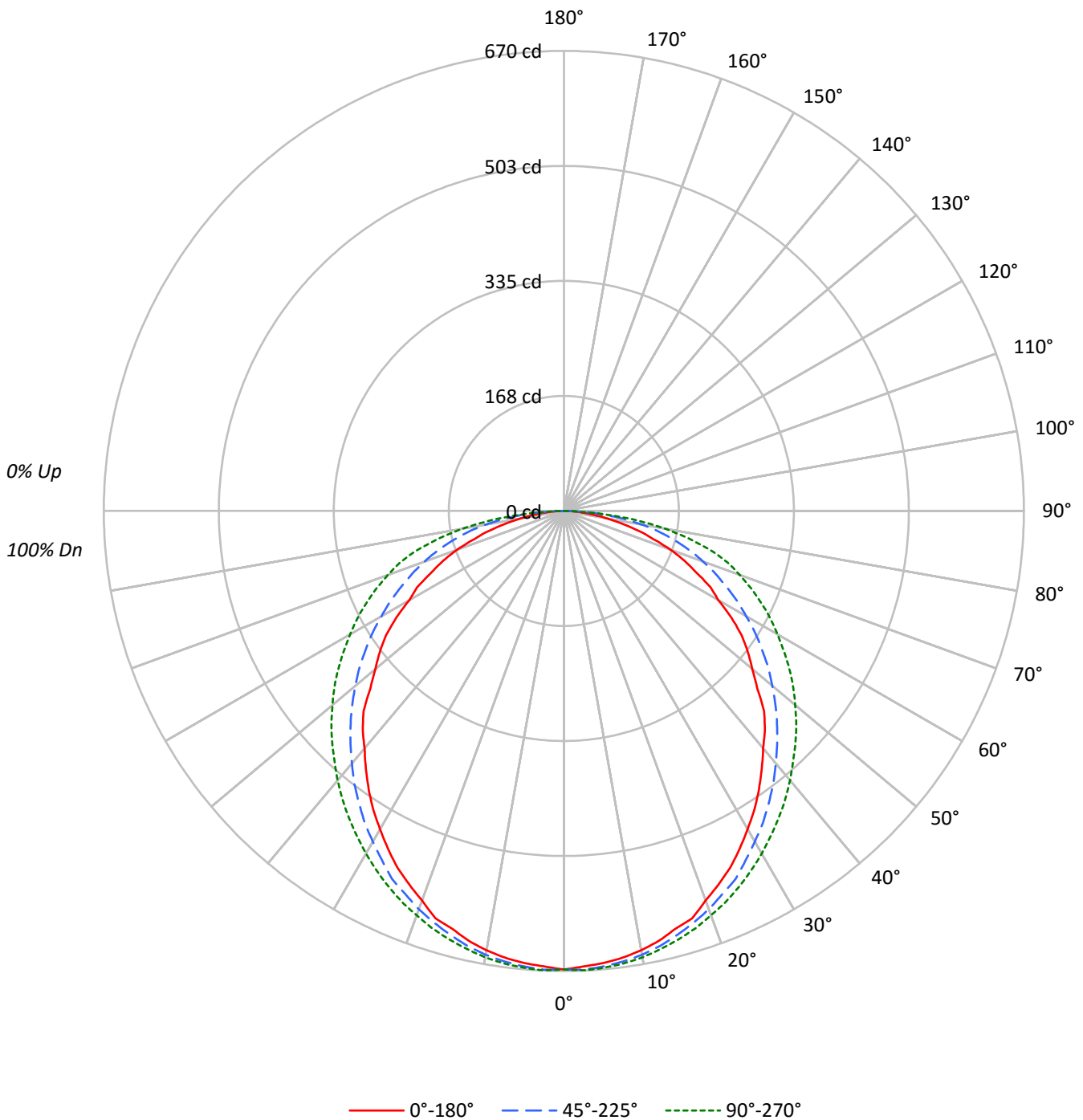
Lumens per Lamp: N/A  
Luminaire Lumens: 1990.0 lumens  
Efficiency: N/A  
Efficacy: 104.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	1797	1797	1797
5°	1786	1798	1804
10°	1775	1793	1803
15°	1754	1780	1799
20°	1729	1767	1795
25°	1703	1756	1793
30°	1663	1728	1790
35°	1627	1708	1793
40°	1586	1686	1800
45°	1569	1671	1816
50°	1499	1659	1842
55°	1483	1653	1881
60°	1399	1651	1933
65°	1358	1662	2020
70°	1304	1701	2143
75°	1188	1753	2307
80°	1018	1816	2332
85°	824	1735	2001



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.2	3.2
10°-20°	180.2	9.1
20°-30°	271.2	13.6
30°-40°	325.6	16.4
40°-50°	340.3	17.1
50°-60°	317.1	15.9
60°-70°	260.1	13.1
70°-80°	175.2	8.8
80°-90°	57.1	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°	514.7	25.9
0°-40°	840.2	42.2
0°-60°	1497.6	75.3
0°-90°	1990.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1990.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	668	668	668	668	668	
5°	661	663	666	667	668	63
15°	630	633	639	645	646	178
25°	573	577	592	600	604	264
35°	495	502	520	538	546	310
45°	412	415	439	466	477	315
55°	316	322	352	386	401	280
65°	213	223	261	299	317	212
75°	114	127	169	207	222	120
85°	27	38	56	66	65	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	667.7	667.7	667.7	667.7	667.7
2.5°	663.9	665.8	668.6	669.6	669.6
5°	661.0	662.9	665.8	666.7	667.7
7.5°	656.2	658.1	661.9	663.9	664.8
10°	649.6	651.5	656.2	659.1	660.0
12.5°	641.0	642.9	648.6	652.4	653.4
15°	629.6	633.4	639.1	644.8	645.8
17.5°	621.9	621.0	628.6	635.3	637.2
20°	603.8	608.6	617.2	624.8	626.7
22.5°	588.6	592.4	603.8	612.4	616.2
25°	573.4	577.2	591.5	600.0	603.8
27.5°	554.3	560.0	573.4	585.8	590.5
30°	535.3	541.0	556.2	570.5	576.2
32.5°	516.2	522.9	539.1	554.3	561.0
35°	495.3	501.9	520.0	538.1	545.7
37.5°	473.4	481.9	501.0	521.0	529.6
40°	451.5	460.0	480.0	502.9	512.4
42.5°	433.4	437.2	460.0	484.8	494.3
45°	412.4	415.3	439.1	465.7	477.2
47.5°	381.9	392.4	418.1	447.6	459.1
50°	358.1	369.5	396.2	427.6	440.0
52.5°	338.1	345.7	375.3	406.7	421.0
55°	316.2	321.9	352.4	385.7	401.0
57.5°	289.5	300.0	330.5	364.8	380.0
60°	260.0	273.4	306.7	343.8	359.1
62.5°	241.0	248.6	284.8	321.9	339.1
65°	213.3	222.9	261.0	299.1	317.2
67.5°	190.5	200.0	239.1	277.2	295.3
70°	165.7	175.2	216.2	254.3	272.4
72.5°	137.2	150.5	193.3	231.4	250.5
75°	114.3	126.7	168.6	206.7	221.9
77.5°	88.6	104.8	143.8	175.2	186.7
80°	65.7	81.9	117.2	140.0	150.5
82.5°	44.8	61.0	87.6	104.8	110.5
85°	26.7	38.1	56.2	65.7	64.8
87.5°	12.4	16.2	22.9	22.9	21.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)