

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: P308672

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-CP187-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: P308672  
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-CP187-W2A-U-2700K  
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.187" 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**

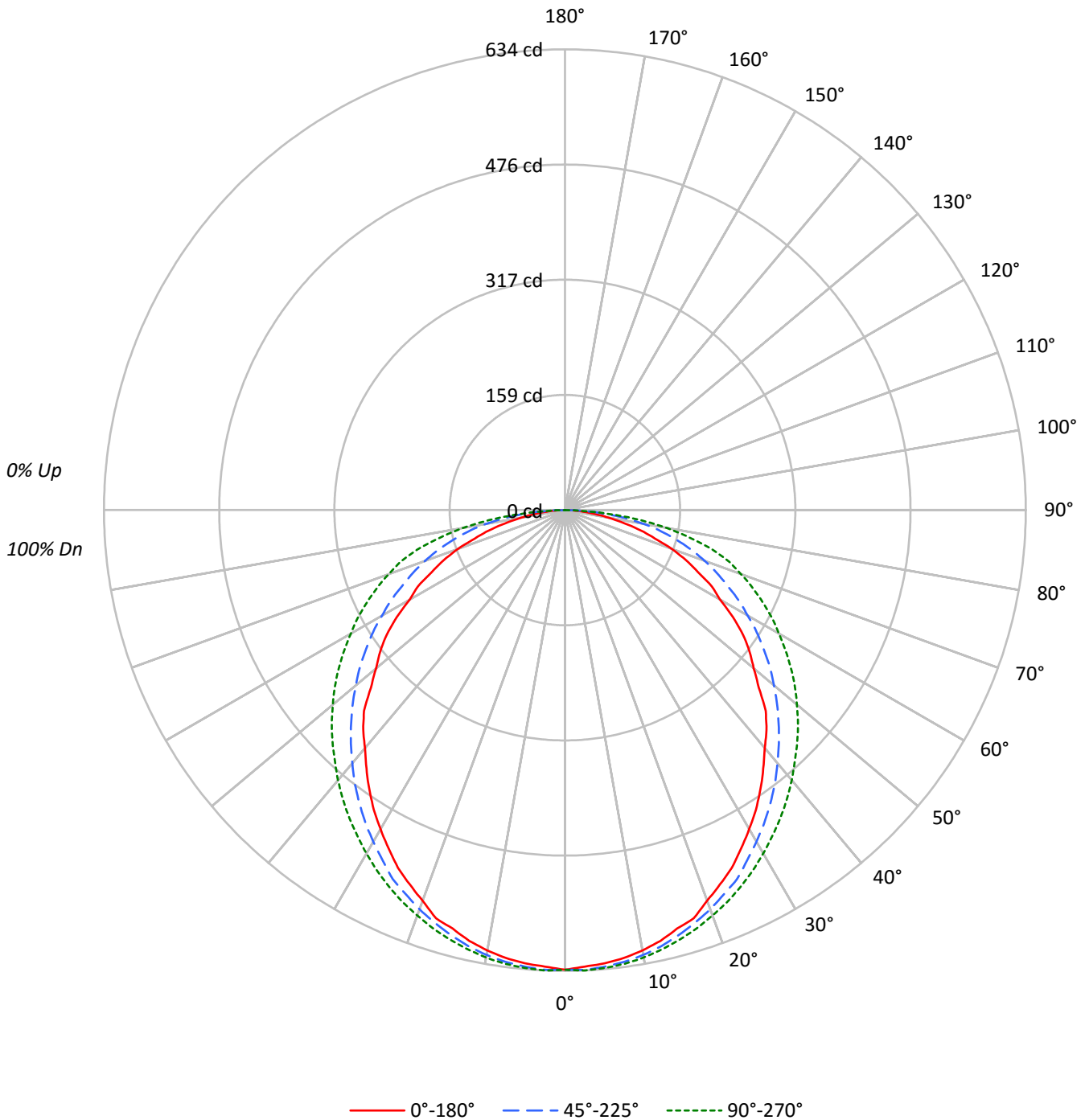
Lumens per Lamp: N/A  
Luminaire Lumens: 1885.0 lumens  
Efficiency: N/A  
Efficacy: 99.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 18.9  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	1702	1702	1702
5°	1691	1703	1708
10°	1681	1699	1708
15°	1661	1687	1704
20°	1638	1674	1700
25°	1613	1664	1698
30°	1575	1637	1696
35°	1541	1618	1698
40°	1502	1597	1705
45°	1486	1583	1720
50°	1420	1571	1745
55°	1405	1566	1782
60°	1326	1563	1830
65°	1287	1574	1913
70°	1235	1611	2030
75°	1126	1660	2185
80°	965	1720	2208
85°	781	1643	1893



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.8	3.2
10°-20°	170.7	9.1
20°-30°	256.9	13.6
30°-40°	308.4	16.4
40°-50°	322.3	17.1
50°-60°	300.4	15.9
60°-70°	246.4	13.1
70°-80°	166.0	8.8
80°-90°	54.1	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°	487.5	25.9
0°-40°	795.9	42.2
0°-60°	1418.6	75.3
0°-90°	1885.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1885.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	632	632	632	632	632	
5°	626	628	631	632	632	59
15°	596	600	605	611	612	169
25°	543	547	560	568	572	250
35°	469	476	493	510	517	293
45°	391	393	416	441	452	298
55°	300	305	334	365	380	265
65°	202	211	247	283	300	201
75°	108	120	160	196	210	114
85°	25	36	53	62	61	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	632.4	632.4	632.4	632.4	632.4
2.5°	628.8	630.6	633.3	634.2	634.2
5°	626.1	627.9	630.6	631.5	632.4
7.5°	621.6	623.4	627.0	628.8	629.7
10°	615.3	617.1	621.6	624.3	625.2
12.5°	607.2	609.0	614.4	618.0	618.9
15°	596.3	600.0	605.4	610.8	611.7
17.5°	589.1	588.2	595.4	601.8	603.6
20°	572.0	576.5	584.6	591.8	593.6
22.5°	557.6	561.2	572.0	580.1	583.7
25°	543.1	546.7	560.3	568.4	572.0
27.5°	525.1	530.5	543.1	554.8	559.4
30°	507.0	512.4	526.9	540.4	545.8
32.5°	489.0	495.3	510.6	525.1	531.4
35°	469.1	475.5	492.6	509.7	517.0
37.5°	448.4	456.5	474.6	493.5	501.6
40°	427.6	435.8	454.7	476.4	485.4
42.5°	410.5	414.1	435.8	459.2	468.2
45°	390.6	393.4	415.9	441.2	452.0
47.5°	361.8	371.7	396.1	424.0	434.9
50°	339.2	350.0	375.3	405.1	416.8
52.5°	320.3	327.5	355.5	385.2	398.8
55°	299.5	304.9	333.8	365.4	379.8
57.5°	274.3	284.2	313.1	345.5	360.0
60°	246.3	258.9	290.5	325.7	340.1
62.5°	228.3	235.5	269.8	304.9	321.2
65°	202.1	211.1	247.2	283.3	300.4
67.5°	180.4	189.5	226.4	262.5	279.7
70°	157.0	166.0	204.8	240.9	258.0
72.5°	129.9	142.5	183.1	219.2	237.3
75°	108.3	120.0	159.7	195.8	210.2
77.5°	83.9	99.2	136.2	166.0	176.8
80°	62.3	77.6	111.0	132.6	142.5
82.5°	42.4	57.7	83.0	99.2	104.7
85°	25.3	36.1	53.2	62.3	61.3
87.5°	11.7	15.3	21.7	21.7	20.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)