

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: P308113

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-HRP-CA08-W2A-U-6500K**

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: P308113  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)  
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-HRP-CA08-W2A-U-6500K  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" 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**

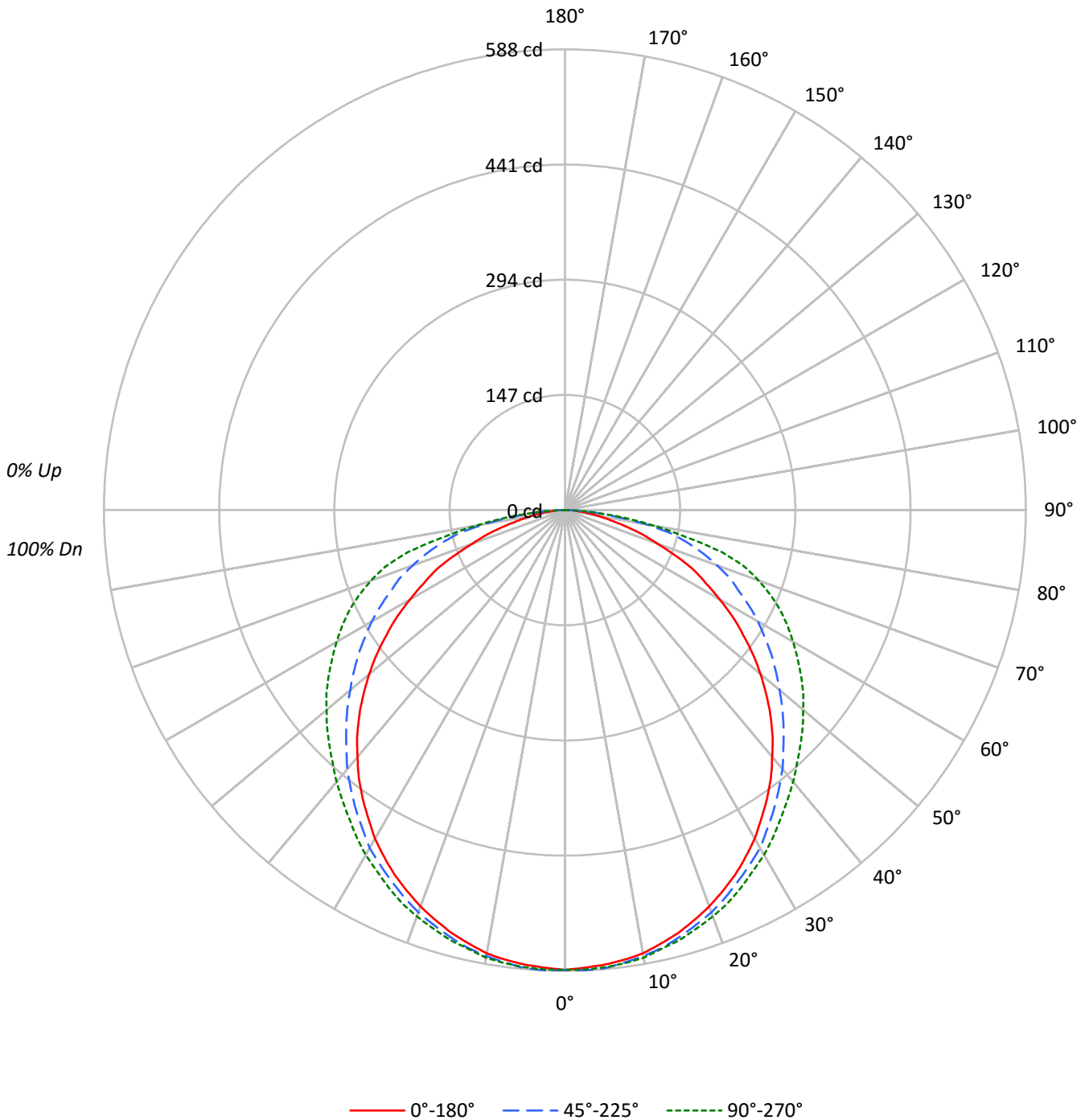
Lumens per Lamp: N/A  
Luminaire Lumens: 1782.0 lumens  
Efficiency: N/A  
Efficacy: 90.5 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	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	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
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	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1579	1579	1579
5°	1573	1585	1582
10°	1570	1579	1585
15°	1556	1572	1582
20°	1542	1564	1580
25°	1525	1552	1579
30°	1505	1547	1579
35°	1477	1529	1577
40°	1445	1516	1591
45°	1412	1502	1617
50°	1365	1497	1661
55°	1303	1508	1725
60°	1228	1531	1809
65°	1160	1561	1933
70°	991	1627	2069
75°	830	1695	2150
80°	679	1638	1795
85°	590	1213	1318



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.6	3.1
10°-20°	159.1	8.9
20°-30°	241.1	13.5
30°-40°	291.1	16.3
40°-50°	305.9	17.2
50°-60°	287.8	16.2
60°-70°	240.0	13.5
70°-80°	159.0	8.9
80°-90°	42.4	2.4
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°	455.8	25.6
0°-40°	746.9	41.9
0°-60°	1340.6	75.2
0°-90°	1782.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1782.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	587	587	587	587	587	
5°	582	583	587	587	586	55
15°	559	561	564	567	568	158
25°	514	517	523	530	532	237
35°	450	454	465	476	480	281
45°	371	377	395	415	425	286
55°	278	290	322	354	368	248
65°	182	198	245	286	304	177
75°	80	111	163	197	207	87
85°	19	29	39	43	43	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	586.8	586.8	586.8	586.8	586.8
2.5°	584.5	585.7	587.9	587.9	586.8
5°	582.3	583.4	586.8	586.8	585.7
7.5°	578.9	580.0	582.3	584.5	583.4
10°	574.4	575.6	577.8	580.0	580.0
12.5°	566.6	567.7	572.2	573.3	573.3
15°	558.7	560.9	564.3	566.6	567.7
17.5°	548.6	550.8	555.3	559.8	559.8
20°	538.5	540.7	546.3	550.8	551.9
22.5°	526.1	529.5	535.1	540.7	543.0
25°	513.7	517.1	522.7	529.5	531.7
27.5°	499.1	502.5	510.4	518.2	519.3
30°	484.5	487.9	498.0	504.7	508.1
32.5°	466.5	471.0	481.1	491.2	494.6
35°	449.6	454.1	465.4	475.5	480.0
37.5°	431.7	436.2	448.5	460.9	466.5
40°	411.4	417.0	431.7	445.2	453.0
42.5°	392.3	397.9	412.6	430.5	438.4
45°	371.0	376.6	394.6	414.8	424.9
47.5°	348.5	355.2	376.6	401.3	411.4
50°	326.0	333.9	357.5	385.6	396.8
52.5°	302.4	312.5	339.5	369.8	383.3
55°	277.7	290.0	321.5	354.1	367.6
57.5°	254.1	265.3	302.4	337.2	351.9
60°	228.2	242.8	284.4	320.4	336.1
62.5°	203.5	219.2	265.3	303.5	320.4
65°	182.1	197.8	245.1	285.5	303.5
67.5°	154.0	175.4	228.2	266.4	284.4
70°	125.9	155.1	206.8	246.2	263.0
72.5°	104.5	132.6	185.5	224.8	240.6
75°	79.8	111.3	163.0	196.7	206.8
77.5°	59.6	92.2	139.4	156.3	157.4
80°	43.8	70.8	105.7	111.3	115.8
82.5°	30.4	49.5	68.6	75.3	77.6
85°	19.1	29.2	39.3	42.7	42.7
87.5°	10.1	11.2	13.5	13.5	13.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)