

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: P308111

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-HRP-CA08-W2A-U-5500K**

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: P308111  
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-5500K  
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**

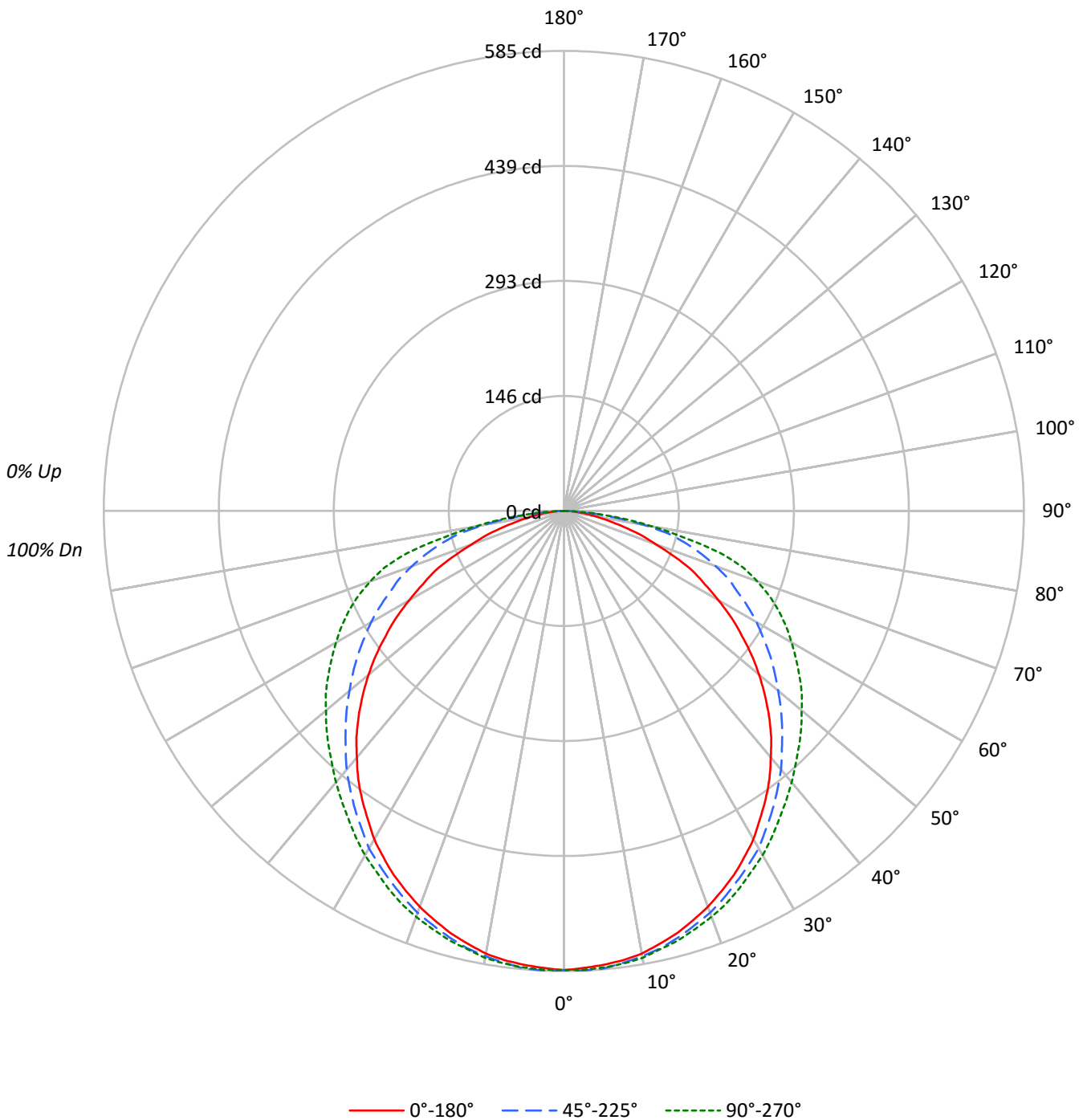
Lumens per Lamp: N/A  
Luminaire Lumens: 1773.0 lumens  
Efficiency: N/A  
Efficacy: 91.4 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	1571	1571	1571
5°	1565	1577	1574
10°	1562	1571	1577
15°	1549	1564	1573
20°	1534	1557	1573
25°	1518	1544	1571
30°	1498	1540	1571
35°	1470	1521	1569
40°	1438	1509	1583
45°	1405	1494	1609
50°	1358	1489	1653
55°	1296	1501	1716
60°	1222	1523	1800
65°	1154	1552	1923
70°	986	1619	2059
75°	826	1686	2140
80°	676	1629	1785
85°	587	1207	1312



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.3	3.1
10°-20°	158.3	8.9
20°-30°	239.9	13.5
30°-40°	289.7	16.3
40°-50°	304.4	17.2
50°-60°	286.4	16.2
60°-70°	238.8	13.5
70°-80°	158.2	8.9
80°-90°	42.2	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°	453.5	25.6
0°-40°	743.1	41.9
0°-60°	1333.9	75.2
0°-90°	1773.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1773.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	584	584	584	584	584	
5°	579	580	584	584	583	55
15°	556	558	562	564	565	157
25°	511	514	520	527	529	235
35°	447	452	463	473	478	280
45°	369	375	393	413	423	284
55°	276	289	320	352	366	247
65°	181	197	244	284	302	176
75°	79	111	162	196	206	86
85°	19	29	39	42	42	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	583.8	583.8	583.8	583.8	583.8
2.5°	581.6	582.7	584.9	584.9	583.8
5°	579.4	580.5	583.8	583.8	582.7
7.5°	576.0	577.1	579.4	581.6	580.5
10°	571.5	572.6	574.9	577.1	577.1
12.5°	563.7	564.8	569.3	570.4	570.4
15°	555.9	558.1	561.5	563.7	564.8
17.5°	545.8	548.0	552.5	557.0	557.0
20°	535.7	538.0	543.6	548.0	549.2
22.5°	523.4	526.8	532.4	538.0	540.2
25°	511.1	514.5	520.1	526.8	529.0
27.5°	496.6	499.9	507.8	515.6	516.7
30°	482.1	485.4	495.5	502.2	505.5
32.5°	464.2	468.6	478.7	488.8	492.1
35°	447.4	451.9	463.0	473.1	477.6
37.5°	429.5	434.0	446.3	458.6	464.2
40°	409.4	414.9	429.5	442.9	450.7
42.5°	390.3	395.9	410.5	428.4	436.2
45°	369.1	374.7	392.6	412.7	422.8
47.5°	346.7	353.4	374.7	399.3	409.4
50°	324.3	332.2	355.7	383.6	394.8
52.5°	300.9	310.9	337.8	368.0	381.4
55°	276.3	288.6	319.9	352.3	365.7
57.5°	252.8	264.0	300.9	335.5	350.1
60°	227.0	241.6	283.0	318.8	334.4
62.5°	202.4	218.1	264.0	302.0	318.8
65°	181.2	196.8	243.8	284.1	302.0
67.5°	153.2	174.5	227.0	265.1	283.0
70°	125.3	154.3	205.8	244.9	261.7
72.5°	104.0	132.0	184.5	223.7	239.3
75°	79.4	110.7	162.2	195.7	205.8
77.5°	59.3	91.7	138.7	155.5	156.6
80°	43.6	70.5	105.1	110.7	115.2
82.5°	30.2	49.2	68.2	74.9	77.2
85°	19.0	29.1	39.1	42.5	42.5
87.5°	10.1	11.2	13.4	13.4	13.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)