

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: P308145

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-HRP-CP250-W2A-U-4500K**

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: P308145  
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-CP250-W2A-U-4500K  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. 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**

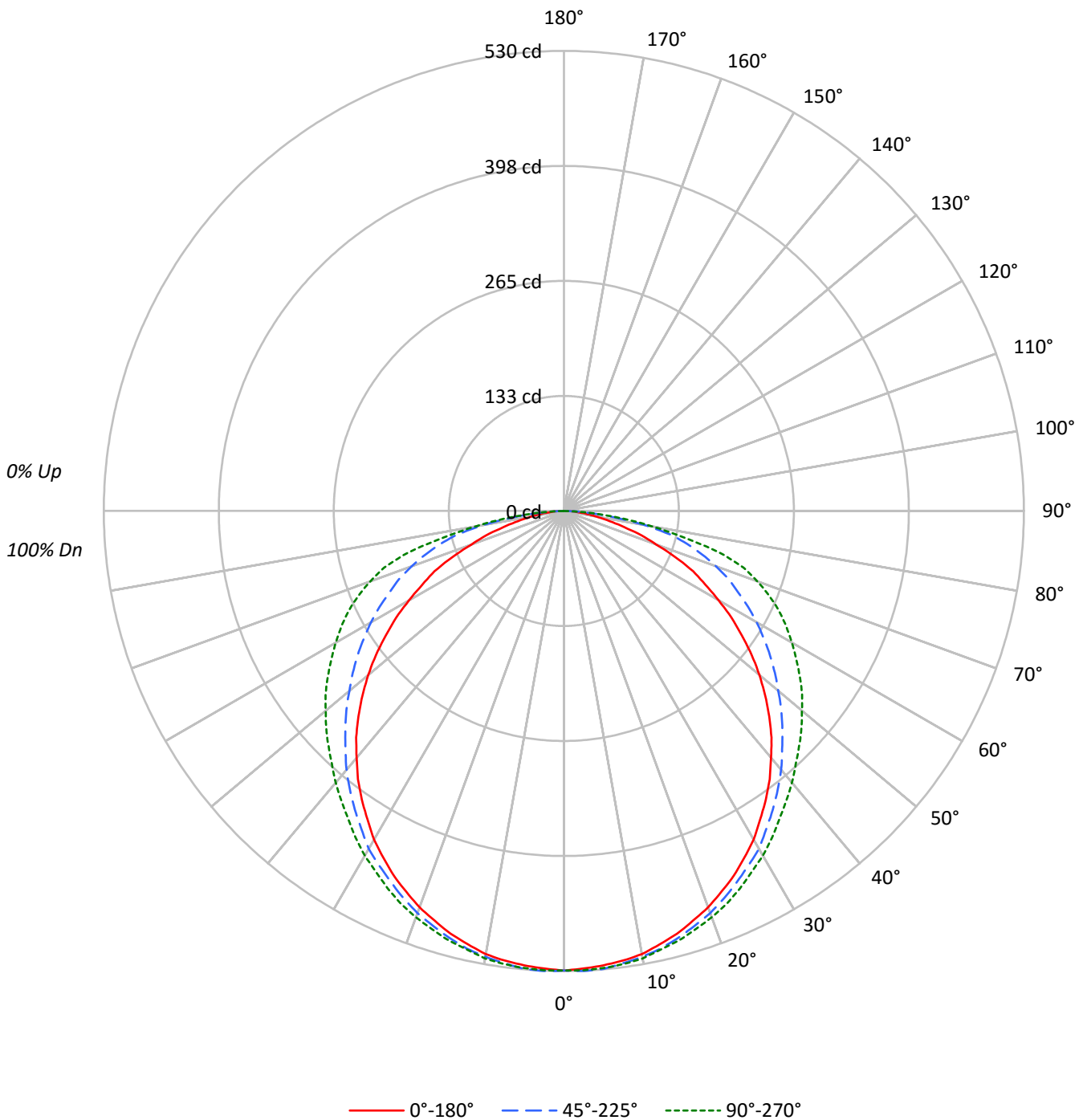
Lumens per Lamp: N/A  
Luminaire Lumens: 1608.0 lumens  
Efficiency: N/A  
Efficacy: 83.3 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	1425	1425	1425
5°	1419	1430	1428
10°	1416	1425	1430
15°	1404	1419	1427
20°	1391	1412	1426
25°	1377	1401	1425
30°	1359	1396	1425
35°	1333	1379	1423
40°	1304	1368	1436
45°	1274	1355	1459
50°	1232	1351	1499
55°	1175	1361	1556
60°	1108	1381	1632
65°	1046	1408	1744
70°	894	1468	1868
75°	749	1529	1940
80°	614	1477	1619
85°	531	1096	1189



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.2	3.1
10°-20°	143.5	8.9
20°-30°	217.6	13.5
30°-40°	262.7	16.3
40°-50°	276.0	17.2
50°-60°	259.7	16.2
60°-70°	216.5	13.5
70°-80°	143.5	8.9
80°-90°	38.2	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°	411.3	25.6
0°-40°	674.0	41.9
0°-60°	1209.7	75.2
0°-90°	1608.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1608.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	530	530	530	530	530	
5°	525	526	530	530	528	50
15°	504	506	509	511	512	142
25°	464	467	472	478	480	213
35°	406	410	420	429	433	254
45°	335	340	356	374	383	258
55°	250	262	290	320	332	224
65°	164	178	221	258	274	160
75°	72	100	147	178	187	78
85°	17	26	36	38	38	20
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	529.5	529.5	529.5	529.5	529.5
2.5°	527.5	528.5	530.5	530.5	529.5
5°	525.4	526.5	529.5	529.5	528.5
7.5°	522.4	523.4	525.4	527.5	526.5
10°	518.3	519.4	521.4	523.4	523.4
12.5°	511.2	512.3	516.3	517.3	517.3
15°	504.1	506.2	509.2	511.2	512.3
17.5°	495.0	497.0	501.1	505.2	505.2
20°	485.9	487.9	493.0	497.0	498.1
22.5°	474.7	477.8	482.8	487.9	489.9
25°	463.6	466.6	471.7	477.8	479.8
27.5°	450.4	453.4	460.5	467.6	468.6
30°	437.2	440.2	449.4	455.4	458.5
32.5°	421.0	425.0	434.1	443.3	446.3
35°	405.7	409.8	419.9	429.1	433.1
37.5°	389.5	393.6	404.7	415.9	421.0
40°	371.3	376.3	389.5	401.7	408.8
42.5°	354.0	359.1	372.3	388.5	395.6
45°	334.7	339.8	356.0	374.3	383.4
47.5°	314.5	320.5	339.8	362.1	371.3
50°	294.2	301.3	322.6	347.9	358.1
52.5°	272.9	282.0	306.3	333.7	345.9
55°	250.5	261.7	290.1	319.5	331.7
57.5°	229.2	239.4	272.9	304.3	317.5
60°	205.9	219.1	256.6	289.1	303.3
62.5°	183.6	197.8	239.4	273.9	289.1
65°	164.3	178.5	221.1	257.6	273.9
67.5°	139.0	158.2	205.9	240.4	256.6
70°	113.6	140.0	186.6	222.1	237.4
72.5°	94.3	119.7	167.4	202.9	217.1
75°	72.0	100.4	147.1	177.5	186.6
77.5°	53.8	83.2	125.8	141.0	142.0
80°	39.6	63.9	95.3	100.4	104.5
82.5°	27.4	44.6	61.9	68.0	70.0
85°	17.2	26.4	35.5	38.5	38.5
87.5°	9.1	10.1	12.2	12.2	12.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)