

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: P312452

Luminaire Tested: **22FCZ2-20HE-UNV-L83050-HRP-CP125-W2A-U-4000K**

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: P312452  
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: 22FCZ2-20HE-UNV-L83050-HRP-CP125-W2A-U-4000K  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB SHEET  
Light Source: (168) 4000K 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**

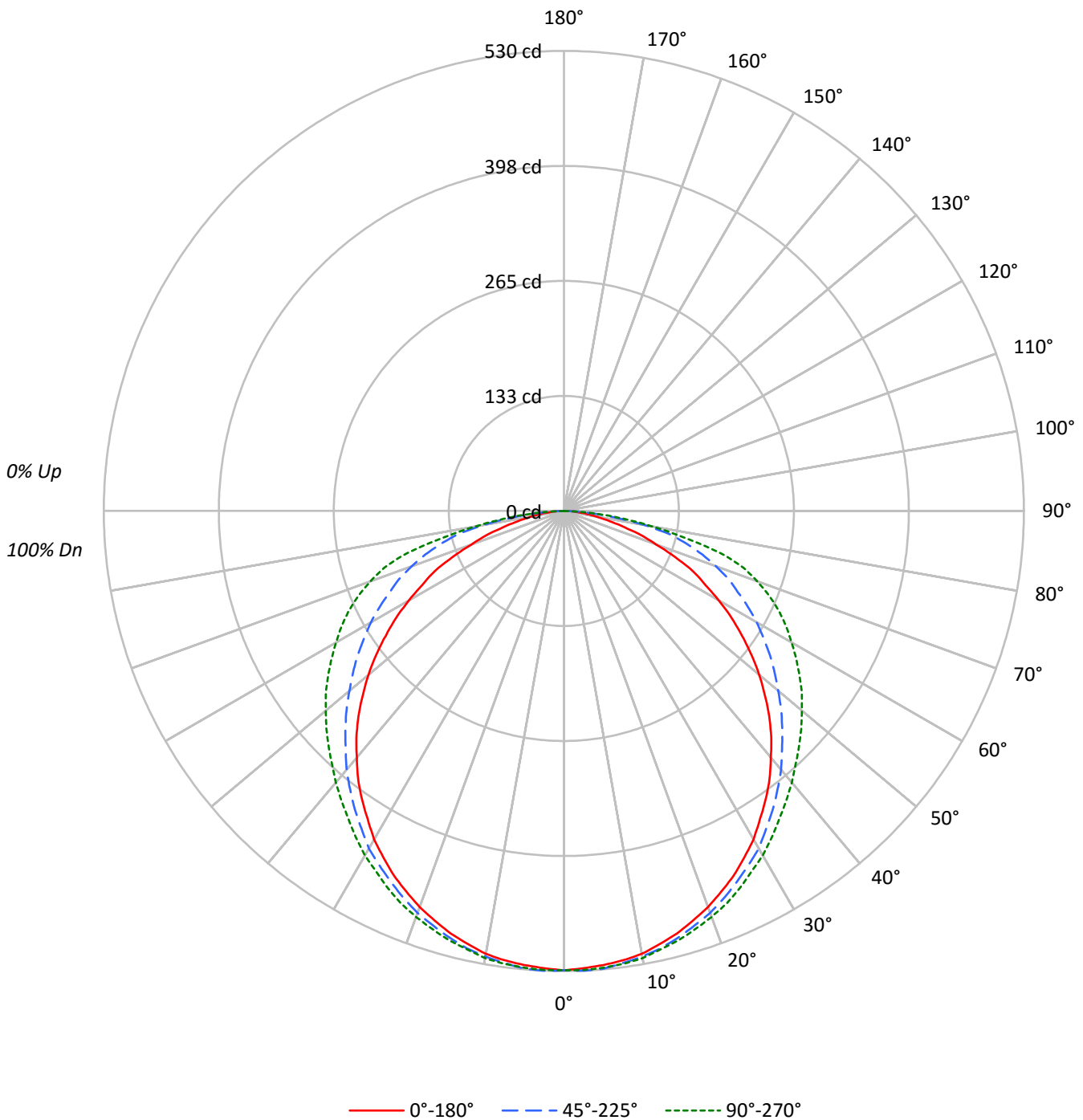
Lumens per Lamp: N/A  
Luminaire Lumens: 1607.0 lumens  
Efficiency: N/A  
Efficacy: 94.0 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.1  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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°	1424	1424	1424
5°	1418	1430	1427
10°	1415	1424	1429
15°	1404	1418	1426
20°	1391	1411	1425
25°	1376	1400	1424
30°	1358	1395	1424
35°	1332	1379	1422
40°	1303	1368	1435
45°	1273	1354	1458
50°	1231	1350	1498
55°	1175	1360	1555
60°	1108	1380	1631
65°	1046	1407	1743
70°	893	1467	1866
75°	749	1528	1939
80°	612	1477	1618
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°	217.4	13.5
30°-40°	262.5	16.3
40°-50°	275.9	17.2
50°-60°	259.5	16.2
60°-70°	216.4	13.5
70°-80°	143.4	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°	411.0	25.6
0°-40°	673.6	41.9
0°-60°	1209.0	75.2
0°-90°	1607.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1607.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	529	529	529	529	529	
5°	525	526	529	529	528	50
15°	504	506	509	511	512	142
25°	463	466	471	478	480	213
35°	406	410	420	429	433	254
45°	334	340	356	374	383	258
55°	250	262	290	319	332	224
65°	164	178	221	258	274	160
75°	72	100	147	177	186	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°	529.2	529.2	529.2	529.2	529.2
2.5°	527.1	528.2	530.2	530.2	529.2
5°	525.1	526.1	529.2	529.2	528.2
7.5°	522.1	523.1	525.1	527.1	526.1
10°	518.0	519.0	521.1	523.1	523.1
12.5°	510.9	511.9	516.0	517.0	517.0
15°	503.8	505.9	508.9	510.9	511.9
17.5°	494.7	496.7	500.8	504.8	504.8
20°	485.6	487.6	492.7	496.7	497.7
22.5°	474.4	477.5	482.5	487.6	489.6
25°	463.3	466.3	471.4	477.5	479.5
27.5°	450.1	453.1	460.2	467.3	468.3
30°	436.9	440.0	449.1	455.2	458.2
32.5°	420.7	424.8	433.9	443.0	446.0
35°	405.5	409.5	419.7	428.8	432.9
37.5°	389.3	393.3	404.5	415.6	420.7
40°	371.0	376.1	389.3	401.4	408.5
42.5°	353.8	358.9	372.0	388.3	395.4
45°	334.5	339.6	355.8	374.1	383.2
47.5°	314.3	320.3	339.6	361.9	371.0
50°	294.0	301.1	322.4	347.7	357.8
52.5°	272.7	281.8	306.1	333.5	345.7
55°	250.4	261.5	289.9	319.3	331.5
57.5°	229.1	239.2	272.7	304.1	317.3
60°	205.8	219.0	256.5	288.9	303.1
62.5°	183.5	197.7	239.2	273.7	288.9
65°	164.2	178.4	221.0	257.5	273.7
67.5°	138.9	158.1	205.8	240.3	256.5
70°	113.5	139.9	186.5	222.0	237.2
72.5°	94.3	119.6	167.3	202.7	216.9
75°	72.0	100.4	147.0	177.4	186.5
77.5°	53.7	83.1	125.7	140.9	141.9
80°	39.5	63.9	95.3	100.4	104.4
82.5°	27.4	44.6	61.8	67.9	69.9
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)