

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: P308622

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-CP125-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: P308622  
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: 22FCZ2-20HE-UNV-L82765-CP125-W2A-U-4500K  
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.125" 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**

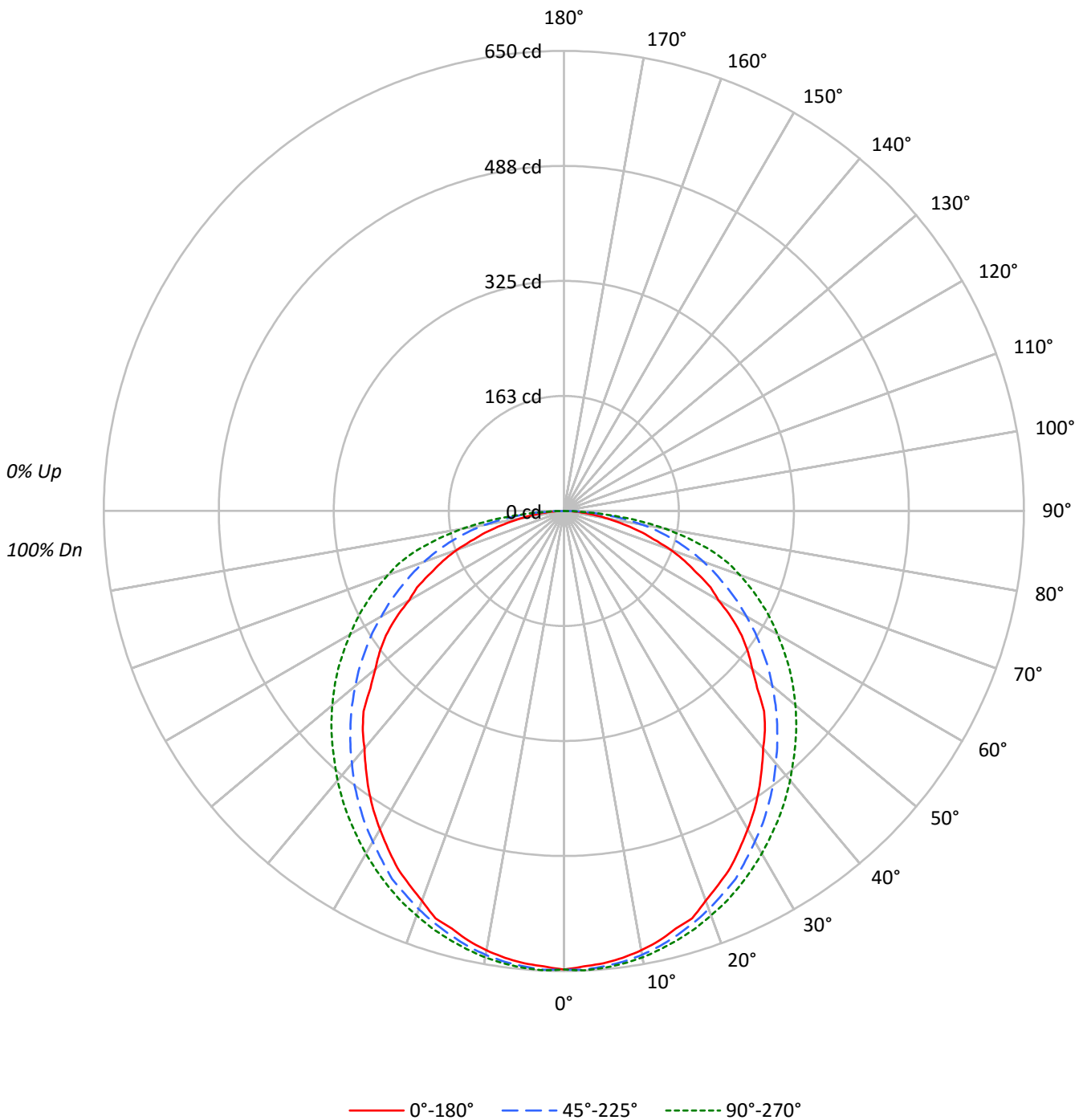
Lumens per Lamp: N/A  
Luminaire Lumens: 1931.0 lumens  
Efficiency: N/A  
Efficacy: 113.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	1743	1743	1743
5°	1733	1745	1750
10°	1722	1740	1750
15°	1702	1728	1746
20°	1678	1715	1741
25°	1652	1704	1740
30°	1614	1677	1737
35°	1579	1658	1740
40°	1539	1636	1747
45°	1523	1622	1762
50°	1455	1610	1788
55°	1439	1605	1825
60°	1358	1602	1875
65°	1318	1612	1960
70°	1265	1651	2079
75°	1153	1701	2239
80°	989	1762	2263
85°	800	1683	1939



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.3	3.2
10°-20°	174.9	9.1
20°-30°	263.2	13.6
30°-40°	315.9	16.4
40°-50°	330.2	17.1
50°-60°	307.7	15.9
60°-70°	252.4	13.1
70°-80°	170.1	8.8
80°-90°	55.4	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°	499.4	25.9
0°-40°	815.3	42.2
0°-60°	1453.2	75.3
0°-90°	1931.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1931.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	648	648	648	648	648	
5°	641	643	646	647	648	61
15°	611	615	620	626	627	173
25°	556	560	574	582	586	256
35°	481	487	505	522	530	300
45°	400	403	426	452	463	306
55°	307	312	342	374	389	272
65°	207	216	253	290	308	206
75°	111	123	164	201	215	117
85°	26	37	54	64	63	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	647.9	647.9	647.9	647.9	647.9
2.5°	644.2	646.0	648.8	649.7	649.7
5°	641.4	643.2	646.0	646.9	647.9
7.5°	636.8	638.6	642.3	644.2	645.1
10°	630.3	632.2	636.8	639.5	640.5
12.5°	622.0	623.8	629.4	633.1	634.0
15°	610.9	614.6	620.1	625.7	626.6
17.5°	603.5	602.6	610.0	616.4	618.3
20°	585.9	590.6	598.9	606.3	608.1
22.5°	571.2	574.9	585.9	594.3	598.0
25°	556.4	560.1	573.9	582.2	585.9
27.5°	537.9	543.4	556.4	568.4	573.0
30°	519.4	524.9	539.7	553.6	559.1
32.5°	500.9	507.4	523.1	537.9	544.4
35°	480.6	487.1	504.6	522.2	529.6
37.5°	459.3	467.6	486.1	505.5	513.9
40°	438.1	446.4	465.8	488.0	497.2
42.5°	420.5	424.2	446.4	470.4	479.7
45°	400.2	403.0	426.1	451.9	463.0
47.5°	370.6	380.8	405.7	434.4	445.5
50°	347.5	358.6	384.5	415.0	427.0
52.5°	328.1	335.5	364.1	394.6	408.5
55°	306.8	312.4	342.0	374.3	389.1
57.5°	281.0	291.1	320.7	354.0	368.8
60°	252.3	265.2	297.6	333.6	348.4
62.5°	233.8	241.2	276.3	312.4	329.0
65°	207.0	216.3	253.2	290.2	307.8
67.5°	184.8	194.1	232.0	268.9	286.5
70°	160.8	170.1	209.8	246.8	264.3
72.5°	133.1	146.0	187.6	224.6	243.1
75°	110.9	122.9	163.6	200.6	215.3
77.5°	86.0	101.7	139.6	170.1	181.1
80°	63.8	79.5	113.7	135.9	146.0
82.5°	43.4	59.1	85.0	101.7	107.2
85°	25.9	37.0	54.5	63.8	62.8
87.5°	12.0	15.7	22.2	22.2	21.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)