

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: P308637

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-CP250-W2A-U-3000K**

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: P308637  
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-CP250-W2A-U-3000K  
Description: 2'X2' TROFFER LED MODULE, RIBBED 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**

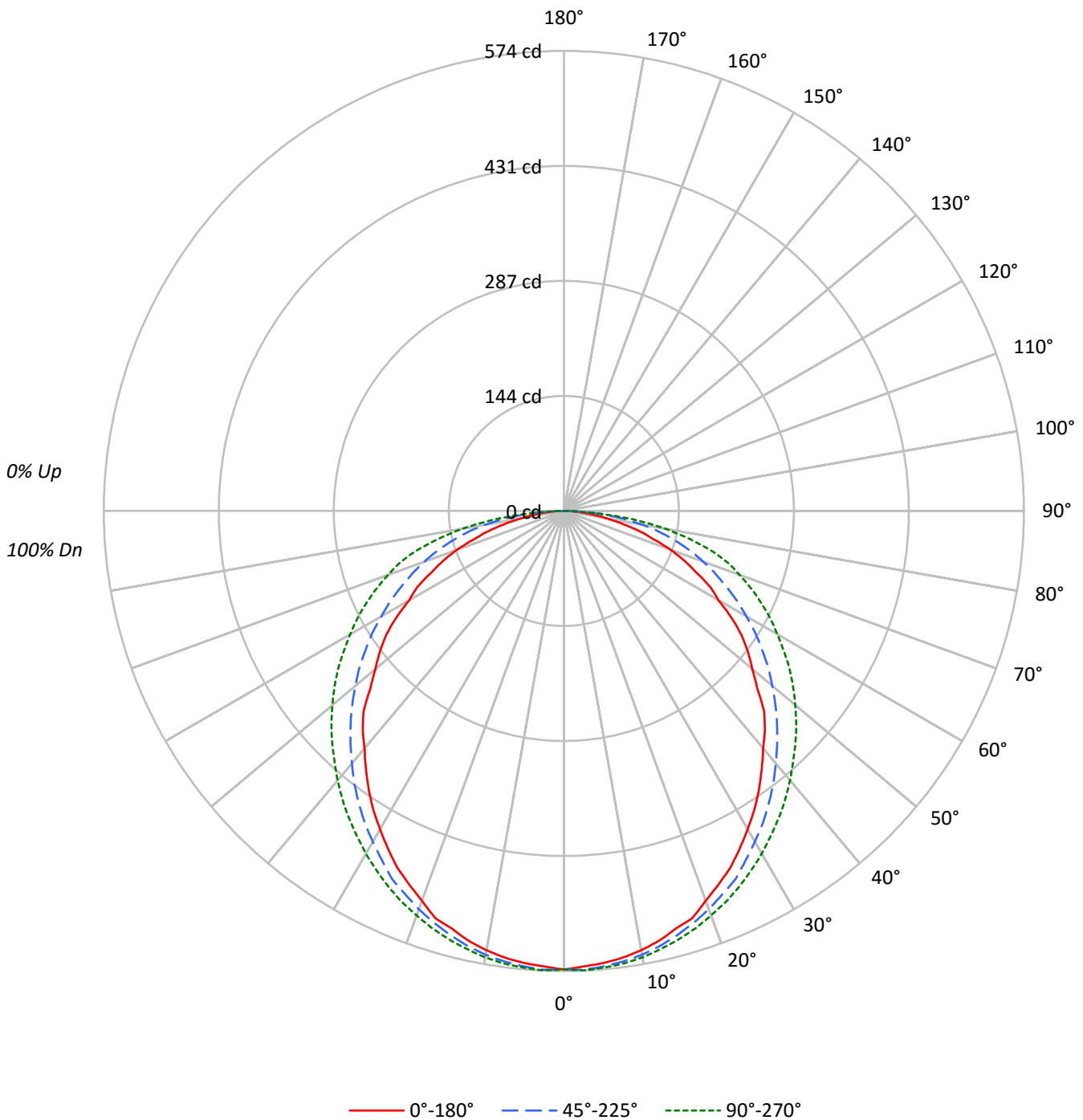
Lumens per Lamp: N/A  
Luminaire Lumens: 1705.0 lumens  
Efficiency: N/A  
Efficacy: 102.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 16.6  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	1539	1539	1539
5°	1530	1541	1545
10°	1521	1536	1545
15°	1503	1526	1541
20°	1482	1514	1538
25°	1459	1505	1536
30°	1425	1481	1534
35°	1394	1464	1536
40°	1359	1445	1542
45°	1345	1432	1556
50°	1284	1421	1578
55°	1271	1416	1612
60°	1199	1414	1655
65°	1164	1424	1730
70°	1117	1457	1836
75°	1018	1501	1976
80°	872	1556	1998
85°	704	1485	1714



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	54.1	3.2
10°-20°	154.4	9.1
20°-30°	232.4	13.6
30°-40°	278.9	16.4
40°-50°	291.5	17.1
50°-60°	271.7	15.9
60°-70°	222.8	13.1
70°-80°	150.2	8.8
80°-90°	48.9	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°	441.0	25.9
0°-40°	719.9	42.2
0°-60°	1283.1	75.3
0°-90°	1705.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1705.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	572	572	572	572	572	
5°	566	568	570	571	572	54
15°	539	543	548	552	553	152
25°	491	494	507	514	517	226
35°	424	430	446	461	468	265
45°	353	356	376	399	409	270
55°	271	276	302	330	344	240
65°	183	191	224	256	272	182
75°	98	108	144	177	190	103
85°	23	33	48	56	56	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	572.0	572.0	572.0	572.0	572.0
2.5°	568.8	570.4	572.9	573.7	573.7
5°	566.3	568.0	570.4	571.2	572.0
7.5°	562.2	563.9	567.1	568.8	569.6
10°	556.5	558.2	562.2	564.7	565.5
12.5°	549.2	550.8	555.7	559.0	559.8
15°	539.4	542.7	547.6	552.5	553.3
17.5°	532.9	532.1	538.6	544.3	545.9
20°	517.4	521.4	528.8	535.3	537.0
22.5°	504.3	507.6	517.4	524.7	528.0
25°	491.3	494.5	506.8	514.1	517.4
27.5°	474.9	479.8	491.3	501.9	505.9
30°	458.6	463.5	476.6	488.8	493.7
32.5°	442.3	448.0	461.9	474.9	480.6
35°	424.3	430.1	445.6	461.1	467.6
37.5°	405.6	412.9	429.2	446.4	453.7
40°	386.8	394.1	411.3	430.9	439.0
42.5°	371.3	374.6	394.1	415.4	423.5
45°	353.3	355.8	376.2	399.0	408.8
47.5°	327.2	336.2	358.2	383.5	393.3
50°	306.8	316.6	339.5	366.4	377.0
52.5°	289.7	296.2	321.5	348.4	360.7
55°	270.9	275.8	301.9	330.5	343.6
57.5°	248.1	257.1	283.2	312.5	325.6
60°	222.8	234.2	262.8	294.6	307.6
62.5°	206.5	213.0	244.0	275.8	290.5
65°	182.8	191.0	223.6	256.2	271.7
67.5°	163.2	171.4	204.8	237.5	253.0
70°	142.0	150.2	185.2	217.9	233.4
72.5°	117.5	128.9	165.7	198.3	214.6
75°	97.9	108.5	144.4	177.1	190.1
77.5°	75.9	89.8	123.2	150.2	159.9
80°	56.3	70.2	100.4	120.0	128.9
82.5°	38.4	52.2	75.1	89.8	94.7
85°	22.8	32.6	48.1	56.3	55.5
87.5°	10.6	13.9	19.6	19.6	18.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)