

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: P313037

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-S-CP250-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: P313037  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22FCZ2-44HE-UNV-L83050-S-CP250-W2A-U-4000K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.250" 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**

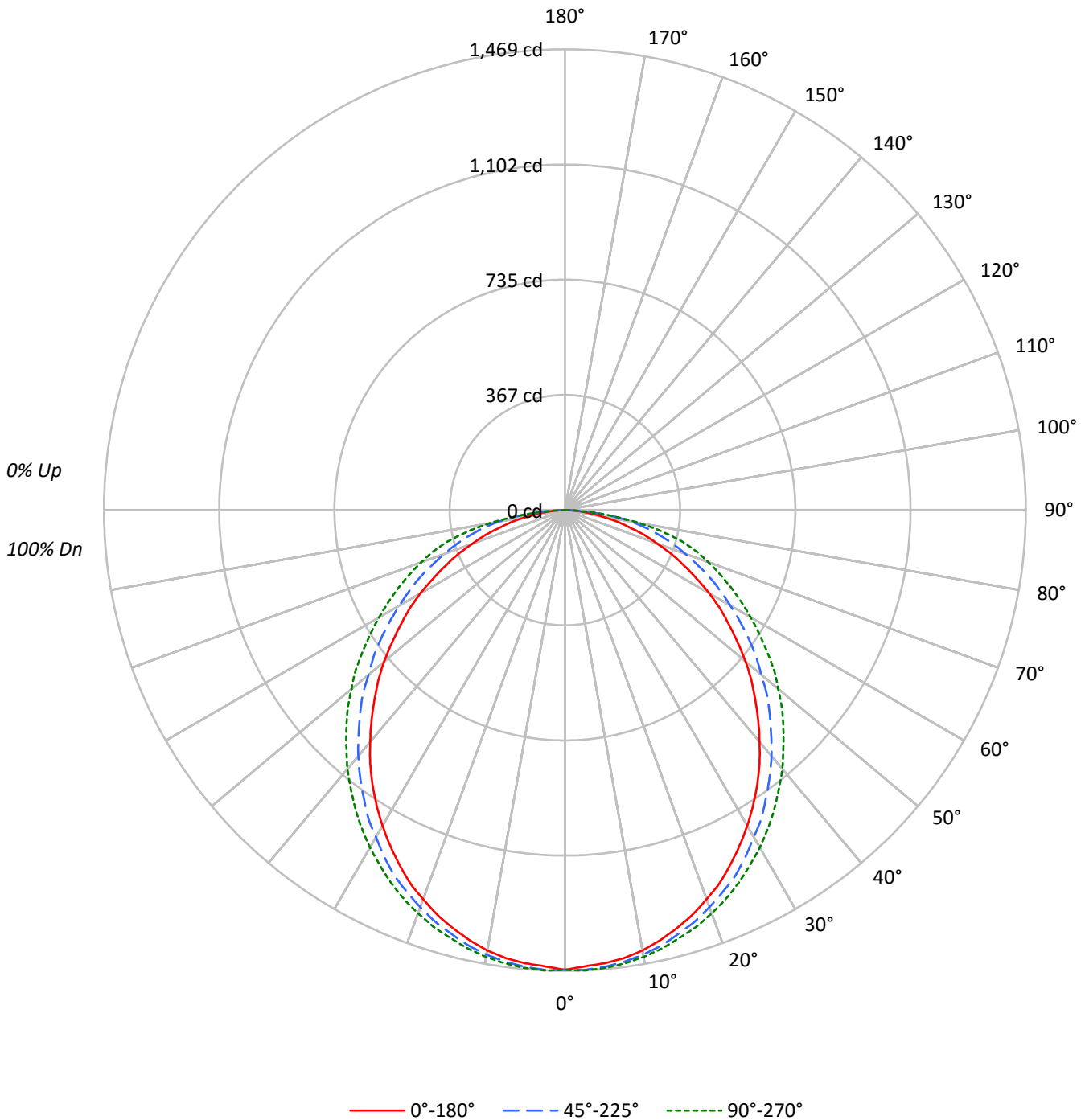
Lumens per Lamp: N/A  
Luminaire Lumens: 4090.0 lumens  
Efficiency: N/A  
Efficacy: 107.3 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 38.1  
Input Voltage (V): NR  
Input Current (A<sub>in</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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3944	3944	3944
5°	3918	3949	3959
10°	3895	3932	3953
15°	3844	3897	3934
20°	3781	3858	3918
25°	3706	3819	3893
30°	3611	3741	3860
35°	3510	3674	3824
40°	3392	3600	3788
45°	3268	3515	3747
50°	3148	3419	3715
55°	2999	3357	3689
60°	2865	3276	3677
65°	2673	3256	3718
70°	2463	3228	3829
75°	2222	3274	4028
80°	1922	3371	3786
85°	1590	2828	2828



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	138.6	3.4
10°-20°	394.4	9.6
20°-30°	590.2	14.4
30°-40°	698.9	17.1
40°-50°	712.3	17.4
50°-60°	638.4	15.6
60°-70°	499.8	12.2
70°-80°	322.3	7.9
80°-90°	95.2	2.3
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°	1123.2	27.5
0°-40°	1822.1	44.5
0°-60°	3172.7	77.6
0°-90°	4090.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4090.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1466	1466	1466	1466	1466	
5°	1450	1454	1462	1464	1466	138
15°	1380	1387	1399	1410	1412	389
25°	1248	1260	1286	1303	1311	574
35°	1069	1082	1118	1153	1164	668
45°	859	878	924	971	985	663
55°	639	660	716	765	786	573
65°	420	445	511	561	584	417
75°	214	246	315	368	387	229
85°	52	71	92	92	92	60
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1465.6	1465.6	1465.6	1465.6	1465.6
2.5°	1456.0	1459.8	1467.5	1469.4	1469.4
5°	1450.3	1454.1	1461.8	1463.7	1465.6
7.5°	1440.8	1442.7	1452.2	1456.0	1457.9
10°	1425.5	1429.3	1438.9	1444.6	1446.5
12.5°	1404.5	1410.2	1421.7	1429.3	1431.2
15°	1379.7	1387.3	1398.8	1410.2	1412.1
17.5°	1353.0	1360.6	1375.9	1389.2	1393.1
20°	1320.5	1330.1	1347.3	1362.5	1368.3
22.5°	1288.1	1295.7	1316.7	1335.8	1341.5
25°	1248.0	1259.5	1286.2	1303.4	1311.0
27.5°	1206.0	1219.4	1246.1	1269.0	1276.7
30°	1162.2	1175.5	1204.1	1232.8	1242.3
32.5°	1116.4	1131.6	1166.0	1194.6	1204.1
35°	1068.6	1082.0	1118.3	1152.6	1164.1
37.5°	1019.0	1030.5	1072.5	1108.7	1120.2
40°	965.6	980.9	1024.8	1066.7	1078.2
42.5°	912.2	929.3	973.2	1019.0	1030.5
45°	858.7	877.8	923.6	971.3	984.7
47.5°	807.2	822.5	874.0	919.8	938.9
50°	751.9	767.1	816.8	868.3	887.4
52.5°	694.6	715.6	769.0	818.7	841.6
55°	639.3	660.3	715.6	765.2	786.2
57.5°	587.8	604.9	662.2	713.7	734.7
60°	532.4	547.7	608.7	664.1	683.2
62.5°	473.3	496.2	559.1	610.7	633.6
65°	419.8	444.6	511.4	561.0	583.9
67.5°	370.2	393.1	458.0	511.4	536.2
70°	313.0	343.5	410.3	463.7	486.6
72.5°	267.2	293.9	362.6	416.0	440.8
75°	213.7	246.2	314.9	368.3	387.4
77.5°	169.8	202.3	267.2	309.1	318.7
80°	124.0	156.5	217.5	238.5	244.3
82.5°	84.0	114.5	156.5	162.2	164.1
85°	51.5	70.6	91.6	91.6	91.6
87.5°	24.8	28.6	32.4	30.5	30.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)