

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: P313001

Luminaire Tested: **22FCZ2-39HE-UNV-L83050-S-CP125-W2A-U-3500K**

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: P313001  
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: 22FCZ2-39HE-UNV-L83050-S-CP125-W2A-U-3500K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB SHEET  
Light Source: (168) 3500K 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**

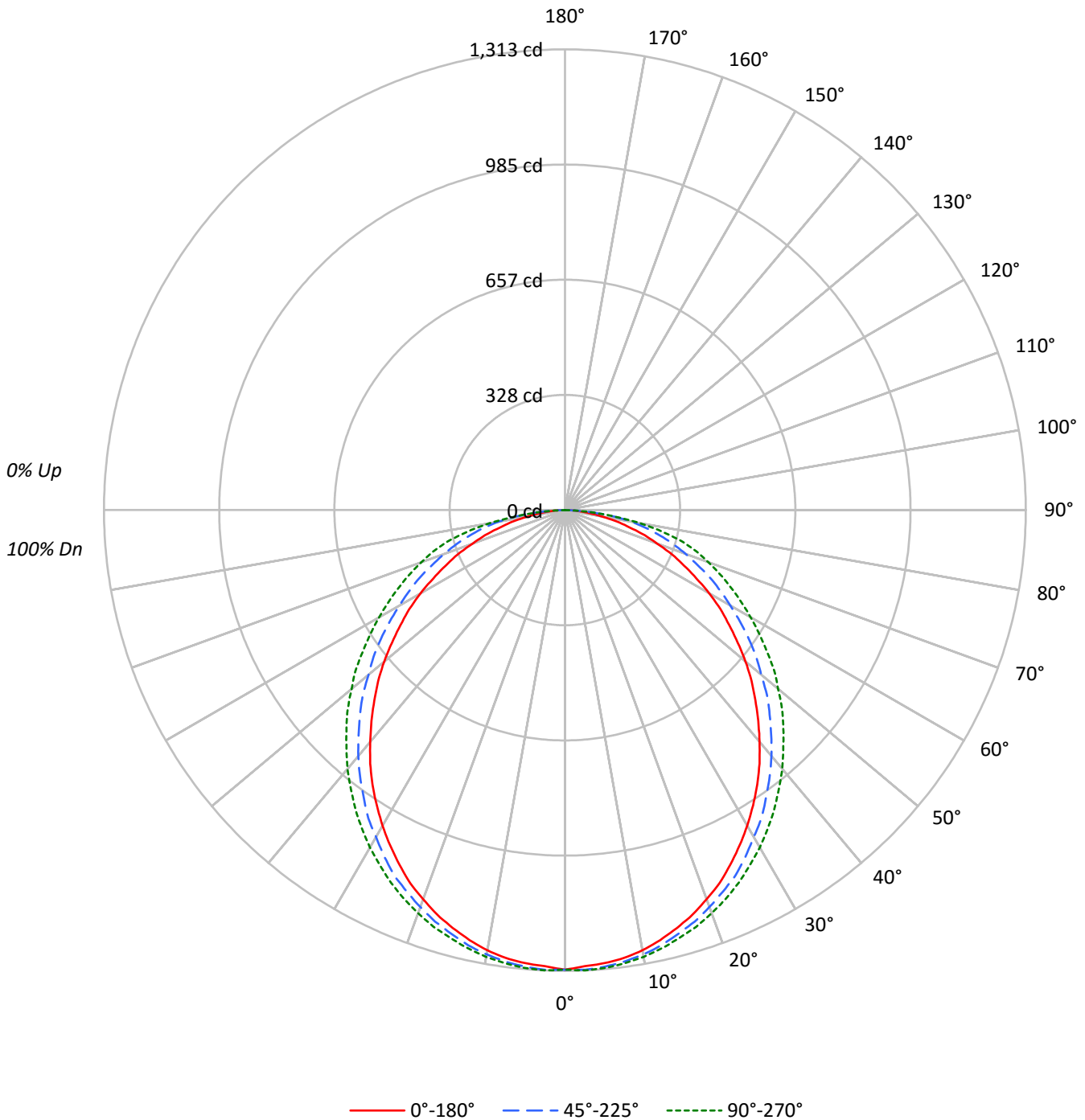
Lumens per Lamp: N/A  
Luminaire Lumens: 3655.0 lumens  
Efficiency: N/A  
Efficacy: 112.8 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 32.4  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	3524	3524	3524
5°	3501	3529	3538
10°	3481	3513	3532
15°	3435	3482	3516
20°	3379	3448	3501
25°	3312	3413	3479
30°	3227	3344	3450
35°	3137	3283	3417
40°	3031	3217	3385
45°	2920	3141	3349
50°	2813	3056	3320
55°	2680	3000	3296
60°	2561	2928	3286
65°	2389	2910	3323
70°	2201	2884	3422
75°	1986	2926	3599
80°	1717	3013	3383
85°	1420	2529	2529



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	123.9	3.4
10°-20°	352.5	9.6
20°-30°	527.4	14.4
30°-40°	624.6	17.1
40°-50°	636.5	17.4
50°-60°	570.5	15.6
60°-70°	446.6	12.2
70°-80°	288.0	7.9
80°-90°	85.1	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°	1003.7	27.5
0°-40°	1628.3	44.5
0°-60°	2835.3	77.6
0°-90°	3655.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3655.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1310	1310	1310	1310	1310	
5°	1296	1300	1306	1308	1310	123
15°	1233	1240	1250	1260	1262	348
25°	1115	1126	1149	1165	1172	513
35°	955	967	999	1030	1040	597
45°	767	784	825	868	880	593
55°	571	590	640	684	703	512
65°	375	397	457	501	522	373
75°	191	220	281	329	346	205
85°	46	63	82	82	82	54
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1309.7	1309.7	1309.7	1309.7	1309.7
2.5°	1301.2	1304.6	1311.4	1313.1	1313.1
5°	1296.1	1299.5	1306.3	1308.0	1309.7
7.5°	1287.5	1289.2	1297.8	1301.2	1302.9
10°	1273.9	1277.3	1285.8	1290.9	1292.6
12.5°	1255.1	1260.2	1270.5	1277.3	1279.0
15°	1233.0	1239.8	1250.0	1260.2	1262.0
17.5°	1209.1	1215.9	1229.5	1241.5	1244.9
20°	1180.1	1188.6	1204.0	1217.6	1222.7
22.5°	1151.1	1157.9	1176.7	1193.7	1198.9
25°	1115.3	1125.5	1149.4	1164.7	1171.6
27.5°	1077.8	1089.7	1113.6	1134.1	1140.9
30°	1038.6	1050.5	1076.1	1101.6	1110.2
32.5°	997.6	1011.3	1042.0	1067.5	1076.1
35°	955.0	966.9	999.3	1030.0	1040.3
37.5°	910.7	920.9	958.4	990.8	1001.0
40°	862.9	876.5	915.8	953.3	963.5
42.5°	815.2	830.5	869.7	910.7	920.9
45°	767.4	784.5	825.4	868.0	880.0
47.5°	721.4	735.0	781.0	822.0	839.0
50°	671.9	685.5	729.9	775.9	793.0
52.5°	620.7	639.5	687.3	731.6	752.1
55°	571.3	590.0	639.5	683.8	702.6
57.5°	525.2	540.6	591.8	637.8	656.6
60°	475.8	489.4	544.0	593.5	610.5
62.5°	422.9	443.4	499.7	545.7	566.2
65°	375.2	397.3	457.0	501.4	521.8
67.5°	330.8	351.3	409.3	457.0	479.2
70°	279.7	307.0	366.6	414.4	434.9
72.5°	238.7	262.6	324.0	371.8	393.9
75°	191.0	220.0	281.4	329.1	346.2
77.5°	151.8	180.8	238.7	276.3	284.8
80°	110.8	139.8	194.4	213.2	218.3
82.5°	75.0	102.3	139.8	145.0	146.7
85°	46.0	63.1	81.9	81.9	81.9
87.5°	22.2	25.6	29.0	27.3	27.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)