

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: P312995

Luminaire Tested: **22FCZ2-39HE-UNV-L83050-S-CA125-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: P312995  
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-CA125-W2A-U-3000K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC 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

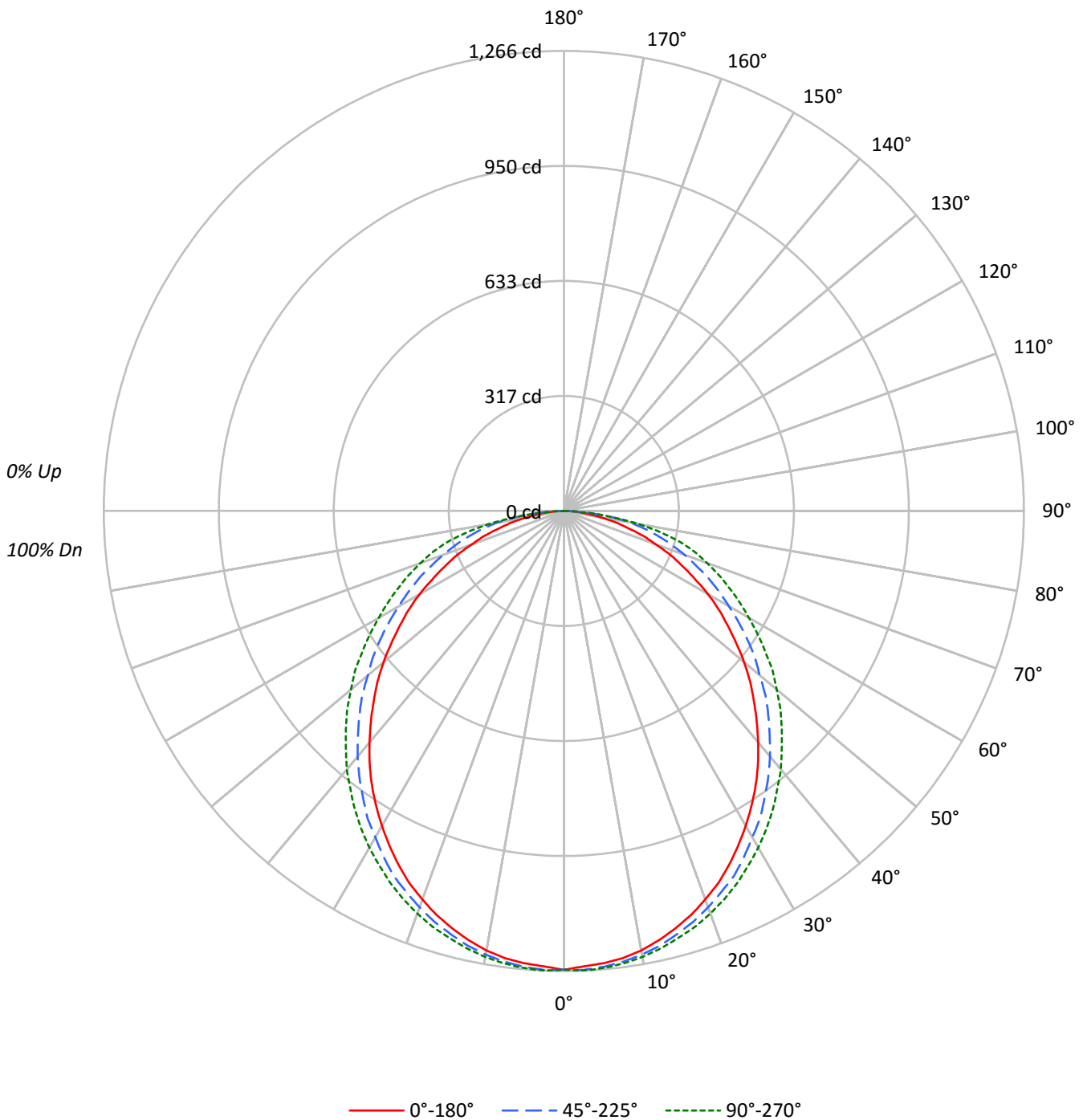
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3523.0 lumens  
Efficiency: N/A  
Efficacy: 109.1 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): 32.3  
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



TEST NUMBER: P312995  
CATALOG NUMBER: 22FCZ2-39HE-UNV-L83050-S-CA125-W2A-U-3000K

### Luminous Intensity Polar Plot





TEST NUMBER: P312995

CATALOG NUMBER: 22FCZ2-39HE-UNV-L83050-S-CA125-W2A-U-3000K

**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°	3397	3397	3397
5°	3375	3401	3410
10°	3355	3387	3405
15°	3311	3357	3389
20°	3257	3323	3375
25°	3192	3290	3353
30°	3110	3223	3325
35°	3024	3164	3294
40°	2922	3101	3262
45°	2815	3028	3228
50°	2711	2945	3200
55°	2584	2892	3177
60°	2468	2822	3167
65°	2302	2805	3203
70°	2121	2781	3298
75°	1914	2820	3470
80°	1655	2904	3261
85°	1371	2436	2436



TEST NUMBER: P312995

CATALOG NUMBER: 22FCZ2-39HE-UNV-L83050-S-CA125-W2A-U-3000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.4	3.4
10°-20°	339.7	9.6
20°-30°	508.3	14.4
30°-40°	602.0	17.1
40°-50°	613.5	17.4
50°-60°	549.9	15.6
60°-70°	430.5	12.2
70°-80°	277.6	7.9
80°-90°	82.0	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°	967.5	27.5
0°-40°	1569.5	44.5
0°-60°	2732.9	77.6
0°-90°	3523.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3523.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1262	1262	1262	1262	1262	
5°	1249	1252	1259	1261	1262	119
15°	1188	1195	1205	1215	1216	335
25°	1075	1085	1108	1123	1129	495
35°	920	932	963	993	1003	575
45°	740	756	796	837	848	571
55°	551	569	616	659	677	494
65°	362	383	440	483	503	359
75°	184	212	271	317	334	197
85°	44	61	79	79	79	52
90°	0	0	0	0	0	



TEST NUMBER: P312995

CATALOG NUMBER: 22FCZ2-39HE-UNV-L83050-S-CA125-W2A-U-3000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1262.4	1262.4	1262.4	1262.4	1262.4
2.5°	1254.2	1257.5	1264.0	1265.7	1265.7
5°	1249.3	1252.5	1259.1	1260.8	1262.4
7.5°	1241.0	1242.7	1250.9	1254.2	1255.8
10°	1227.9	1231.2	1239.4	1244.3	1246.0
12.5°	1209.8	1214.7	1224.6	1231.2	1232.8
15°	1188.4	1195.0	1204.9	1214.7	1216.4
17.5°	1165.4	1172.0	1185.1	1196.7	1199.9
20°	1137.5	1145.7	1160.5	1173.6	1178.6
22.5°	1109.5	1116.1	1134.2	1150.6	1155.6
25°	1075.0	1084.9	1107.9	1122.7	1129.3
27.5°	1038.9	1050.4	1073.4	1093.1	1099.7
30°	1001.0	1012.6	1037.2	1061.9	1070.1
32.5°	961.6	974.7	1004.3	1029.0	1037.2
35°	920.5	932.0	963.2	992.8	1002.7
37.5°	877.8	887.6	923.8	955.0	964.9
40°	831.7	844.9	882.7	918.9	928.7
42.5°	785.7	800.5	838.3	877.8	887.6
45°	739.7	756.1	795.6	836.7	848.2
47.5°	695.3	708.5	752.8	792.3	808.7
50°	647.6	660.8	703.5	747.9	764.3
52.5°	598.3	616.4	662.4	705.2	724.9
55°	550.7	568.7	616.4	659.1	677.2
57.5°	506.3	521.1	570.4	614.8	632.8
60°	458.6	471.8	524.4	572.0	588.5
62.5°	407.7	427.4	481.6	526.0	545.7
65°	361.6	383.0	440.5	483.3	503.0
67.5°	318.9	338.6	394.5	440.5	461.9
70°	269.6	295.9	353.4	399.4	419.2
72.5°	230.1	253.1	312.3	358.3	379.7
75°	184.1	212.0	271.2	317.2	333.7
77.5°	146.3	174.2	230.1	266.3	274.5
80°	106.8	134.8	187.4	205.5	210.4
82.5°	72.3	98.6	134.8	139.7	141.4
85°	44.4	60.8	78.9	78.9	78.9
87.5°	21.4	24.7	27.9	26.3	26.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)