

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: P313000

Luminaire Tested: **22FCZ2-39HE-UNV-L83050-S-CP125-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: P313000
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-3000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH 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: 3454.0 lumens
Efficiency: N/A
Efficacy: 106.9 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

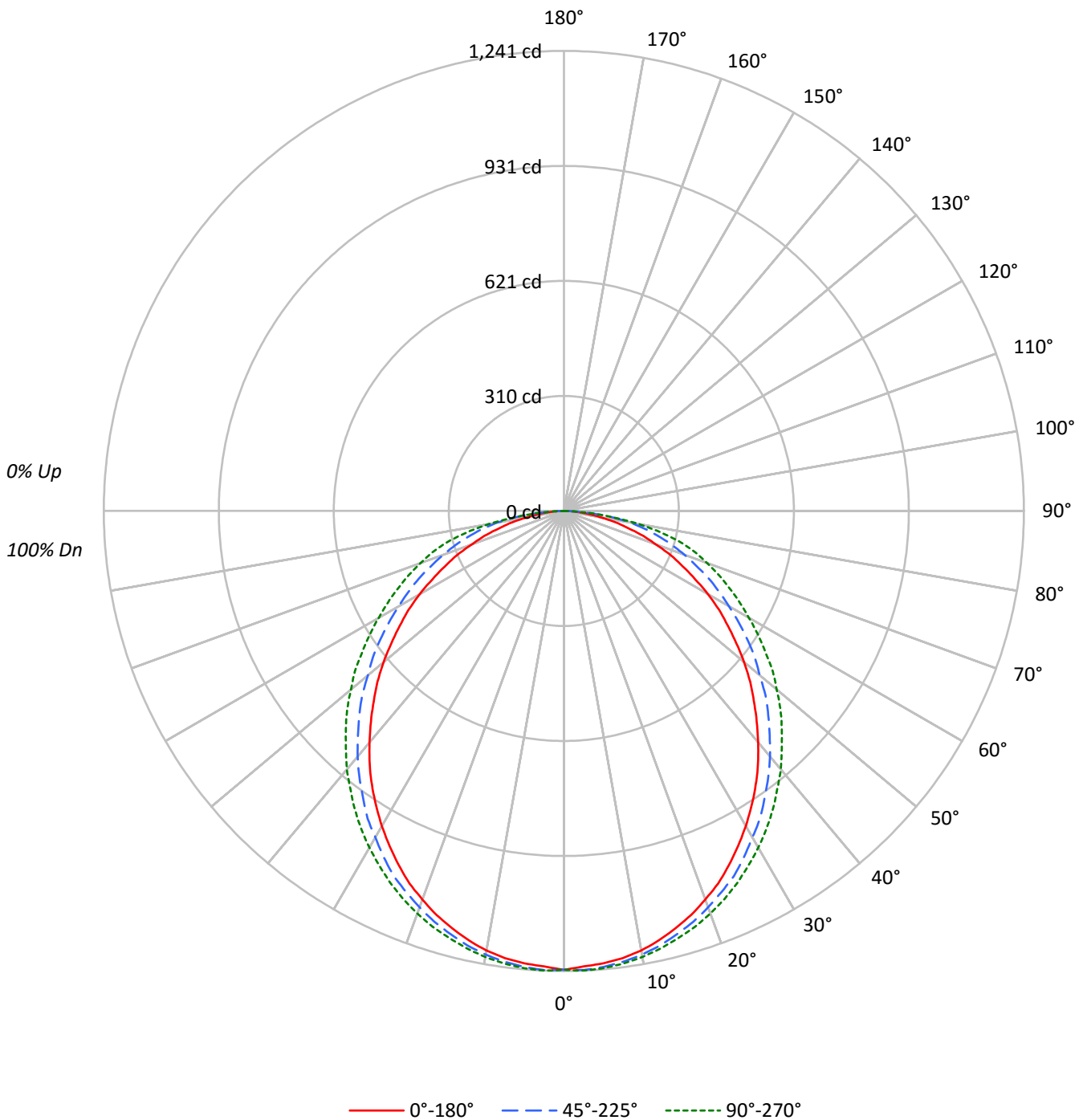
Input Watts (W): 32.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P313000

CATALOG NUMBER: 22FCZ2-39HE-UNV-L83050-S-CP125-W2A-U-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P313000

CATALOG NUMBER: 22FCZ2-39HE-UNV-L83050-S-CP125-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°	3331	3331	3331
5°	3309	3335	3343
10°	3289	3320	3338
15°	3246	3291	3322
20°	3194	3258	3309
25°	3130	3225	3287
30°	3049	3160	3260
35°	2965	3102	3229
40°	2864	3040	3198
45°	2760	2968	3165
50°	2658	2887	3137
55°	2533	2835	3115
60°	2420	2767	3105
65°	2257	2750	3140
70°	2079	2726	3233
75°	1877	2765	3401
80°	1624	2847	3197
85°	1343	2390	2390



TEST NUMBER: P313000

CATALOG NUMBER: 22FCZ2-39HE-UNV-L83050-S-CP125-W2A-U-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.0	3.4
10°-20°	333.1	9.6
20°-30°	498.4	14.4
30°-40°	590.2	17.1
40°-50°	601.5	17.4
50°-60°	539.1	15.6
60°-70°	422.1	12.2
70°-80°	272.2	7.9
80°-90°	80.4	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°	948.5	27.5
0°-40°	1538.7	44.5
0°-60°	2679.3	77.6
0°-90°	3454.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3454.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1238	1238	1238	1238	1238	
5°	1225	1228	1234	1236	1238	116
15°	1165	1172	1181	1191	1193	329
25°	1054	1064	1086	1101	1107	485
35°	902	914	944	973	983	564
45°	725	741	780	820	832	560
55°	540	558	604	646	664	484
65°	354	376	432	474	493	352
75°	180	208	266	311	327	194
85°	44	60	77	77	77	51
90°	0	0	0	0	0	



TEST NUMBER: P313000

CATALOG NUMBER: 22FCZ2-39HE-UNV-L83050-S-CP125-W2A-U-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1237.7	1237.7	1237.7	1237.7	1237.7
2.5°	1229.6	1232.8	1239.3	1240.9	1240.9
5°	1224.8	1228.0	1234.5	1236.1	1237.7
7.5°	1216.7	1218.3	1226.4	1229.6	1231.2
10°	1203.8	1207.1	1215.1	1219.9	1221.6
12.5°	1186.1	1190.9	1200.6	1207.1	1208.7
15°	1165.2	1171.6	1181.3	1190.9	1192.6
17.5°	1142.6	1149.0	1161.9	1173.2	1176.4
20°	1115.2	1123.3	1137.8	1150.7	1155.5
22.5°	1087.8	1094.2	1112.0	1128.1	1132.9
25°	1054.0	1063.6	1086.2	1100.7	1107.1
27.5°	1018.5	1029.8	1052.3	1071.7	1078.1
30°	981.4	992.7	1016.9	1041.1	1049.1
32.5°	942.8	955.7	984.7	1008.8	1016.9
35°	902.5	913.8	944.4	973.4	983.0
37.5°	860.6	870.2	905.7	936.3	946.0
40°	815.4	828.3	865.4	900.9	910.5
42.5°	770.3	784.8	821.9	860.6	870.2
45°	725.2	741.3	780.0	820.3	831.6
47.5°	681.7	694.6	738.1	776.8	792.9
50°	635.0	647.8	689.7	733.3	749.4
52.5°	586.6	604.3	649.5	691.4	710.7
55°	539.9	557.6	604.3	646.2	664.0
57.5°	496.4	510.9	559.2	602.7	620.4
60°	449.6	462.5	514.1	560.8	576.9
62.5°	399.7	419.0	472.2	515.7	535.0
65°	354.5	375.5	431.9	473.8	493.1
67.5°	312.6	332.0	386.8	431.9	452.8
70°	264.3	290.1	346.5	391.6	410.9
72.5°	225.6	248.2	306.2	351.3	372.3
75°	180.5	207.9	265.9	311.0	327.1
77.5°	143.4	170.8	225.6	261.1	269.1
80°	104.8	132.1	183.7	201.4	206.3
82.5°	70.9	96.7	132.1	137.0	138.6
85°	43.5	59.6	77.4	77.4	77.4
87.5°	21.0	24.2	27.4	25.8	25.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)