

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: P312997

Luminaire Tested: **22FCZ2-39HE-UNV-L83050-S-CA125-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: P312997
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-4000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC 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: 3914.0 lumens
Efficiency: N/A
Efficacy: 118.2 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

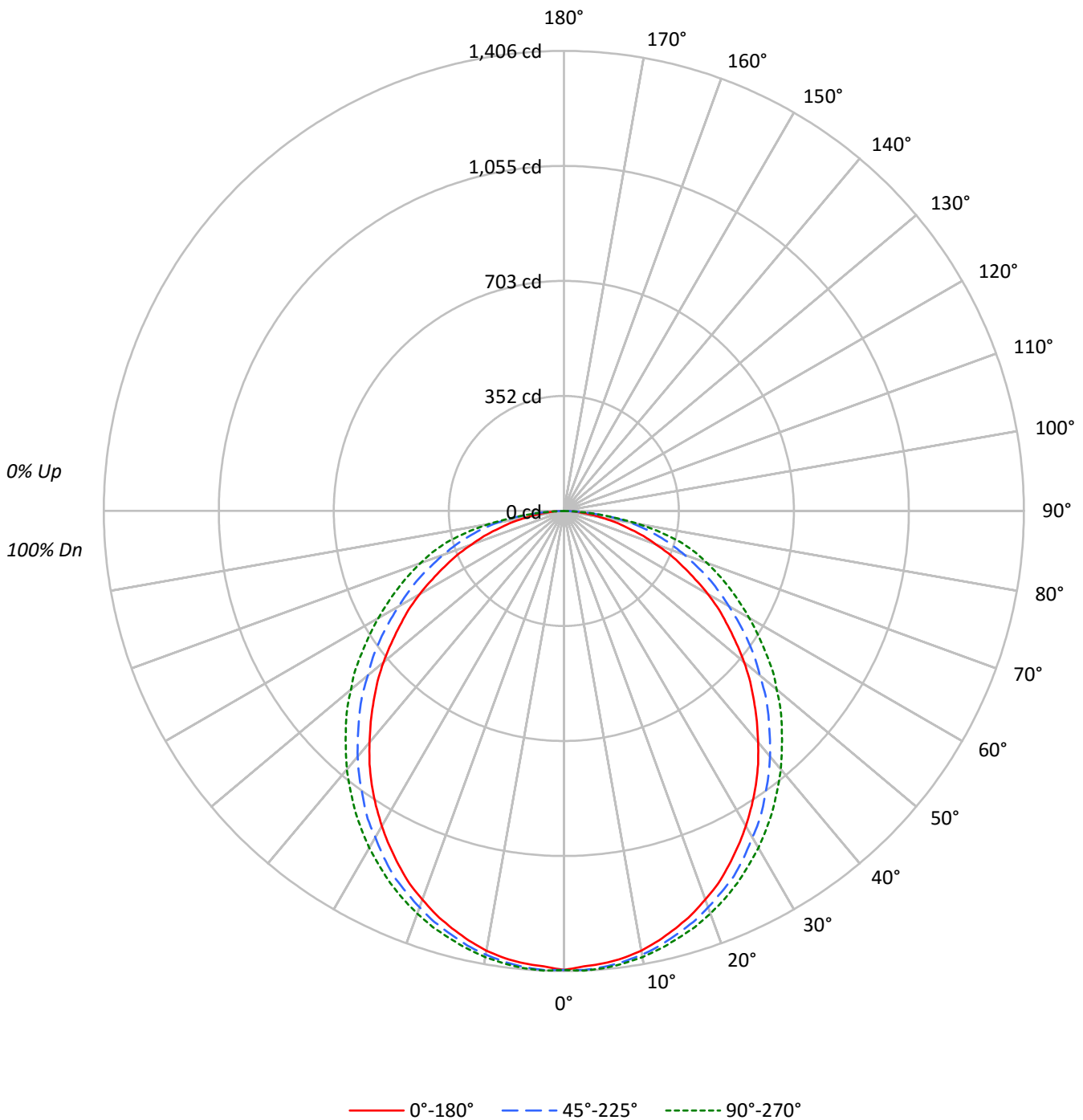
Input Watts (W): 33.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P312997

CATALOG NUMBER: 22FCZ2-39HE-UNV-L83050-S-CA125-W2A-U-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P312997

CATALOG NUMBER: 22FCZ2-39HE-UNV-L83050-S-CA125-W2A-U-4000K

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°	3774	3774	3774
5°	3749	3779	3789
10°	3728	3762	3782
15°	3678	3729	3765
20°	3619	3692	3750
25°	3546	3654	3725
30°	3456	3581	3694
35°	3360	3515	3660
40°	3246	3445	3625
45°	3127	3364	3586
50°	3012	3272	3555
55°	2870	3213	3530
60°	2742	3136	3519
65°	2558	3116	3558
70°	2356	3089	3664
75°	2126	3133	3854
80°	1839	3226	3623
85°	1522	2708	2708



TEST NUMBER: P312997

CATALOG NUMBER: 22FCZ2-39HE-UNV-L83050-S-CA125-W2A-U-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.6	3.4
10°-20°	377.4	9.6
20°-30°	564.8	14.4
30°-40°	668.8	17.1
40°-50°	681.6	17.4
50°-60°	610.9	15.6
60°-70°	478.3	12.2
70°-80°	308.4	7.9
80°-90°	91.1	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°	1074.8	27.5
0°-40°	1743.6	44.5
0°-60°	3036.2	77.6
0°-90°	3914.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3914.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1402	1402	1402	1402	1402	
5°	1388	1392	1399	1401	1402	132
15°	1320	1328	1339	1350	1351	372
25°	1194	1205	1231	1247	1255	550
35°	1023	1035	1070	1103	1114	639
45°	822	840	884	930	942	635
55°	612	632	685	732	752	549
65°	402	426	489	537	559	399
75°	204	236	301	352	371	219
85°	49	68	88	88	88	58
90°	0	0	0	0	0	



TEST NUMBER: P312997

CATALOG NUMBER: 22FC22-39HE-UNV-L83050-S-CA125-W2A-U-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1402.5	1402.5	1402.5	1402.5	1402.5
2.5°	1393.4	1397.0	1404.3	1406.2	1406.2
5°	1387.9	1391.6	1398.9	1400.7	1402.5
7.5°	1378.8	1380.6	1389.7	1393.4	1395.2
10°	1364.2	1367.8	1376.9	1382.4	1384.2
12.5°	1344.1	1349.5	1360.5	1367.8	1369.6
15°	1320.3	1327.6	1338.6	1349.5	1351.4
17.5°	1294.8	1302.1	1316.7	1329.5	1333.1
20°	1263.7	1272.8	1289.3	1303.9	1309.4
22.5°	1232.7	1240.0	1260.1	1278.3	1283.8
25°	1194.3	1205.3	1230.8	1247.3	1254.6
27.5°	1154.1	1166.9	1192.5	1214.4	1221.7
30°	1112.1	1124.9	1152.3	1179.7	1188.8
32.5°	1068.3	1082.9	1115.8	1143.2	1152.3
35°	1022.7	1035.4	1070.1	1103.0	1114.0
37.5°	975.2	986.1	1026.3	1061.0	1072.0
40°	924.0	938.7	980.7	1020.8	1031.8
42.5°	872.9	889.4	931.4	975.2	986.1
45°	821.8	840.0	883.9	929.5	942.3
47.5°	772.5	787.1	836.4	880.2	898.5
50°	719.5	734.1	781.6	830.9	849.2
52.5°	664.7	684.8	736.0	783.4	805.3
55°	611.8	631.9	684.8	732.3	752.4
57.5°	562.5	578.9	633.7	683.0	703.1
60°	509.5	524.1	582.6	635.5	653.8
62.5°	452.9	474.8	535.1	584.4	606.3
65°	401.8	425.5	489.4	536.9	558.8
67.5°	354.3	376.2	438.3	489.4	513.2
70°	299.5	328.7	392.6	443.8	465.7
72.5°	255.7	281.2	347.0	398.1	421.8
75°	204.5	235.6	301.3	352.5	370.7
77.5°	162.5	193.6	255.7	295.8	305.0
80°	118.7	149.7	208.2	228.3	233.8
82.5°	80.4	109.6	149.7	155.2	157.1
85°	49.3	67.6	87.7	87.7	87.7
87.5°	23.7	27.4	31.0	29.2	29.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)