

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: P313023

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-S-CA125-W2A-U-4500K**

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: P313023
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-CA125-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 4500K 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: 4433.0 lumens
Efficiency: N/A
Efficacy: 113.7 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

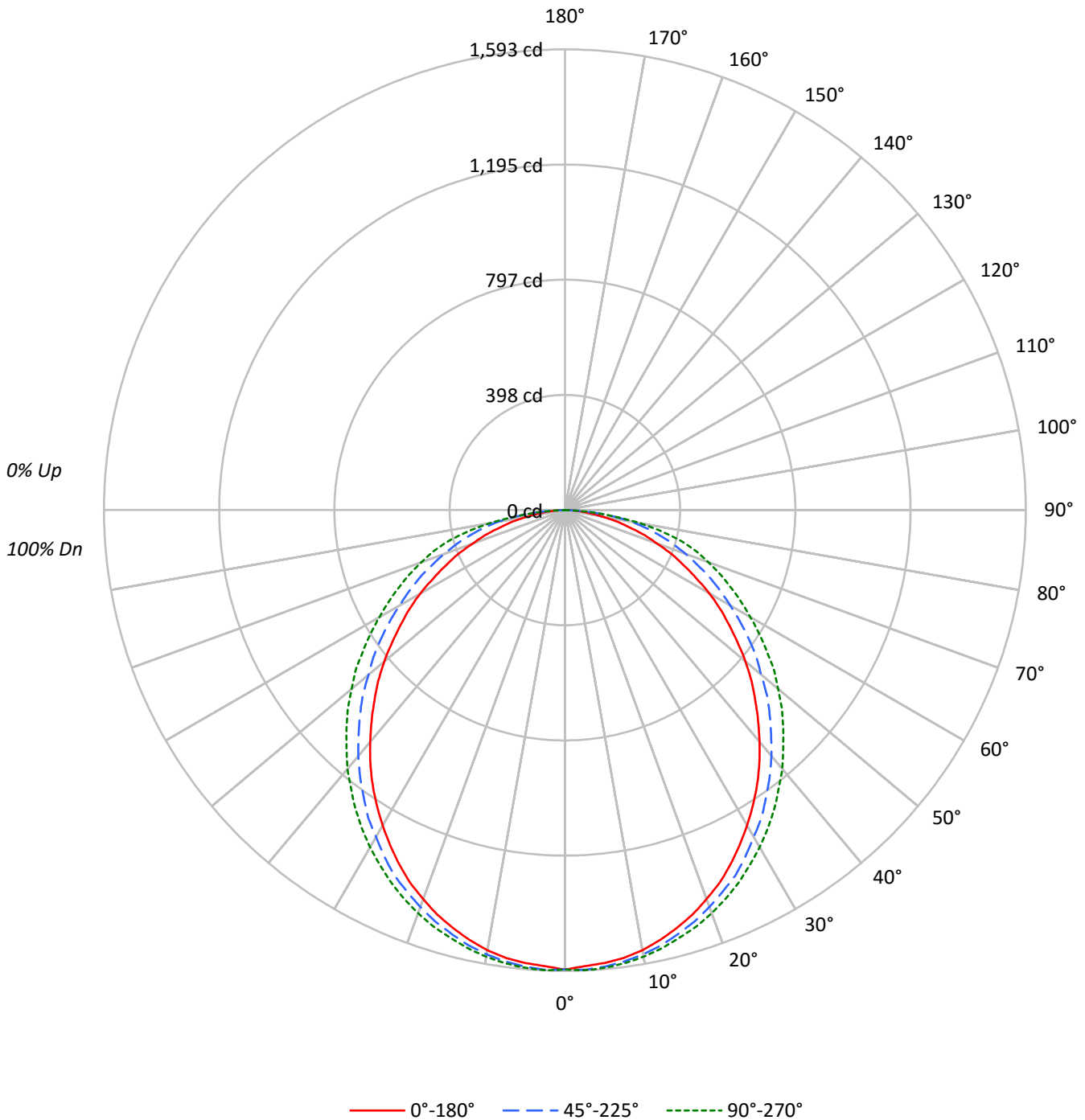
Input Watts (W): 39
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P313023

CATALOG NUMBER: 22FCZ2-44HE-UNV-L83050-S-CA125-W2A-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P313023

CATALOG NUMBER: 22FCZ2-44HE-UNV-L83050-S-CA125-W2A-U-4500K

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°	4275	4275	4275
5°	4246	4280	4291
10°	4222	4261	4284
15°	4166	4224	4264
20°	4099	4182	4247
25°	4016	4139	4219
30°	3914	4055	4184
35°	3805	3982	4145
40°	3677	3902	4105
45°	3542	3810	4062
50°	3412	3706	4026
55°	3251	3639	3998
60°	3106	3551	3985
65°	2897	3529	4030
70°	2669	3499	4150
75°	2409	3549	4366
80°	2083	3654	4102
85°	1723	3066	3066



TEST NUMBER: P313023

CATALOG NUMBER: 22FCZ2-44HE-UNV-L83050-S-CA125-W2A-U-4500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.2	3.4
10°-20°	427.5	9.6
20°-30°	639.6	14.4
30°-40°	757.5	17.1
40°-50°	772.0	17.4
50°-60°	691.9	15.6
60°-70°	541.7	12.2
70°-80°	349.3	7.9
80°-90°	103.2	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°	1217.4	27.5
0°-40°	1974.9	44.5
0°-60°	3438.8	77.6
0°-90°	4433.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4433.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1588	1588	1588	1588	1588	
5°	1572	1576	1584	1586	1588	149
15°	1495	1504	1516	1528	1531	422
25°	1353	1365	1394	1413	1421	623
35°	1158	1173	1212	1249	1262	724
45°	931	951	1001	1053	1067	719
55°	693	716	776	829	852	621
65°	455	482	554	608	633	452
75°	232	267	341	399	420	248
85°	56	76	99	99	99	66
90°	0	0	0	0	0	



TEST NUMBER: P313023

CATALOG NUMBER: 22FC22-44HE-UNV-L83050-S-CA125-W2A-U-4500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1588.5	1588.5	1588.5	1588.5	1588.5
2.5°	1578.1	1582.3	1590.6	1592.6	1592.6
5°	1571.9	1576.1	1584.3	1586.4	1588.5
7.5°	1561.6	1563.7	1574.0	1578.1	1580.2
10°	1545.0	1549.2	1559.5	1565.7	1567.8
12.5°	1522.3	1528.5	1540.9	1549.2	1551.3
15°	1495.4	1503.7	1516.1	1528.5	1530.6
17.5°	1466.5	1474.7	1491.3	1505.7	1509.9
20°	1431.3	1441.6	1460.2	1476.8	1483.0
22.5°	1396.1	1404.4	1427.2	1447.8	1454.0
25°	1352.7	1365.1	1394.1	1412.7	1420.9
27.5°	1307.2	1321.7	1350.6	1375.4	1383.7
30°	1259.6	1274.1	1305.1	1336.1	1346.5
32.5°	1210.0	1226.5	1263.8	1294.8	1305.1
35°	1158.3	1172.7	1212.0	1249.3	1261.7
37.5°	1104.5	1116.9	1162.4	1201.7	1214.1
40°	1046.6	1063.1	1110.7	1156.2	1168.6
42.5°	988.7	1007.3	1054.9	1104.5	1116.9
45°	930.8	951.4	1001.1	1052.8	1067.3
47.5°	874.9	891.5	947.3	996.9	1017.6
50°	814.9	831.5	885.2	941.1	961.8
52.5°	752.9	775.6	833.5	887.3	912.1
55°	692.9	715.6	775.6	829.4	852.2
57.5°	637.0	655.7	717.7	773.6	796.3
60°	577.1	593.6	659.8	719.8	740.5
62.5°	512.9	537.8	606.0	661.9	686.7
65°	455.0	481.9	554.3	608.1	632.9
67.5°	401.3	426.1	496.4	554.3	581.2
70°	339.2	372.3	444.7	502.6	527.4
72.5°	289.6	318.5	393.0	450.9	477.8
75°	231.7	266.8	341.3	399.2	419.9
77.5°	184.1	219.2	289.6	335.1	345.4
80°	134.4	169.6	235.8	258.5	264.7
82.5°	91.0	124.1	169.6	175.8	177.9
85°	55.8	76.5	99.3	99.3	99.3
87.5°	26.9	31.0	35.2	33.1	33.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)