

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: P312866

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-CA08-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: P312866  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)  
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-CA08-W2A-U-3500K  
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.08" ACRYLIC 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**

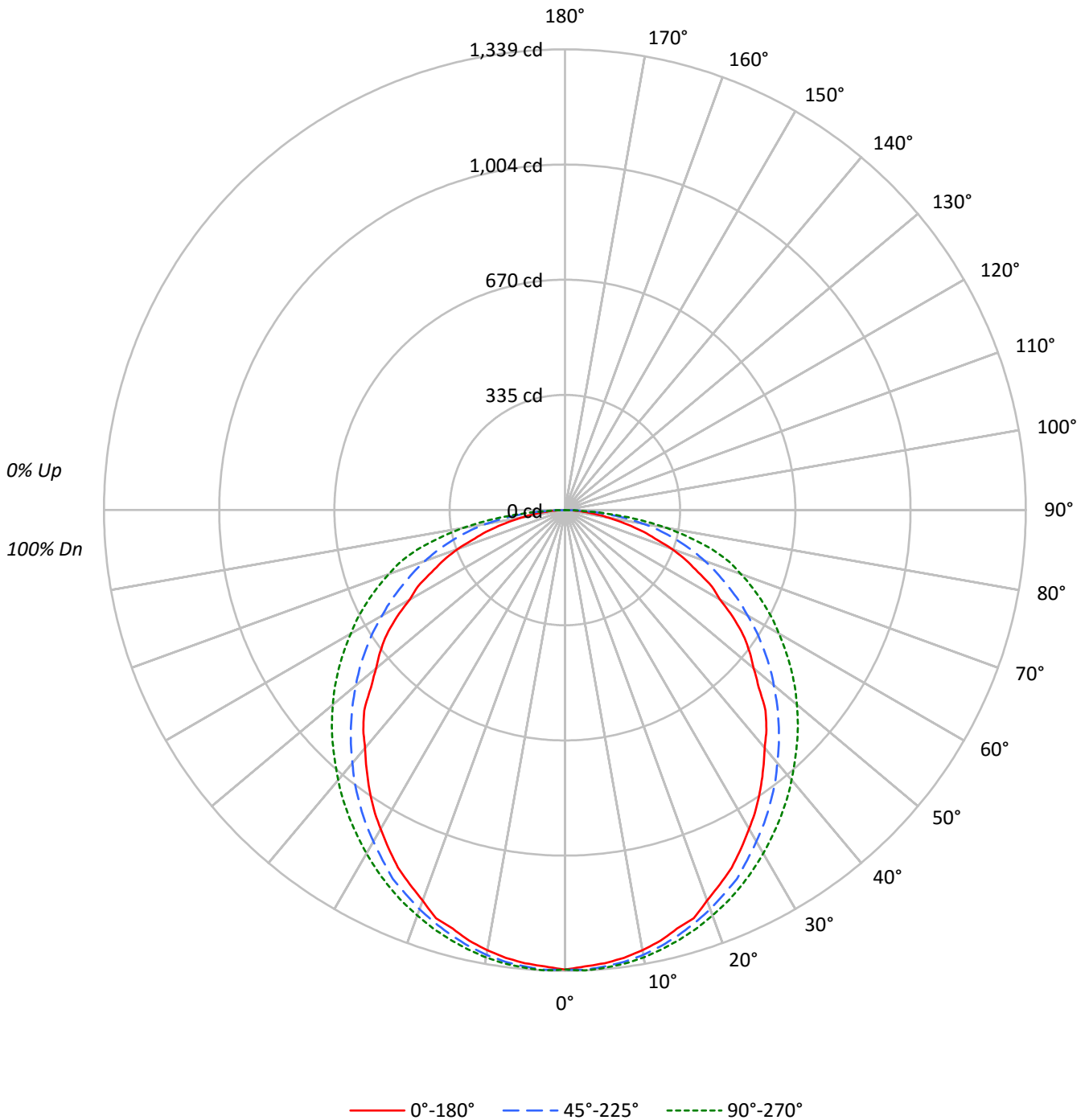
Lumens per Lamp: N/A  
Luminaire Lumens: 3980.0 lumens  
Efficiency: N/A  
Efficacy: 107.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 37.2  
Input Voltage (V): NR  
Input Current (A<sub>in</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: P312866

CATALOG NUMBER: 22FCZ2-44HE-UNV-L83050-CA08-W2A-U-3500K

### Luminous Intensity Polar Plot





TEST NUMBER: P312866

CATALOG NUMBER: 22FCZ2-44HE-UNV-L83050-CA08-W2A-U-3500K

**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	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3593	3593	3593
5°	3571	3597	3607
10°	3550	3586	3607
15°	3508	3561	3598
20°	3458	3535	3589
25°	3405	3512	3586
30°	3326	3457	3581
35°	3254	3417	3586
40°	3172	3373	3600
45°	3139	3342	3632
50°	2998	3317	3684
55°	2967	3307	3763
60°	2799	3301	3865
65°	2717	3323	4039
70°	2607	3402	4286
75°	2377	3506	4614
80°	2036	3631	4665
85°	1646	3470	3998



TEST NUMBER: P312866

CATALOG NUMBER: 22FCZ2-44HE-UNV-L83050-CA08-W2A-U-3500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	126.4	3.2
10°-20°	360.5	9.1
20°-30°	542.5	13.6
30°-40°	651.1	16.4
40°-50°	680.5	17.1
50°-60°	634.2	15.9
60°-70°	520.2	13.1
70°-80°	350.5	8.8
80°-90°	114.2	2.9
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°	1029.3	25.9
0°-40°	1680.4	42.2
0°-60°	2995.2	75.3
0°-90°	3980.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3980.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1335	1335	1335	1335	1335	
5°	1322	1326	1332	1333	1335	125
15°	1259	1267	1278	1290	1292	356
25°	1147	1154	1183	1200	1208	527
35°	990	1004	1040	1076	1092	619
45°	825	830	878	932	954	630
55°	632	644	705	772	802	560
65°	427	446	522	598	634	424
75°	229	253	337	413	444	240
85°	53	76	112	131	130	63
90°	0	0	0	0	0	



TEST NUMBER: P312866

CATALOG NUMBER: 22FCZ2-44HE-UNV-L83050-CA08-W2A-U-3500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1335.3	1335.3	1335.3	1335.3	1335.3
2.5°	1327.7	1331.5	1337.2	1339.1	1339.1
5°	1322.0	1325.8	1331.5	1333.4	1335.3
7.5°	1312.5	1316.3	1323.9	1327.7	1329.6
10°	1299.1	1302.9	1312.5	1318.2	1320.1
12.5°	1282.0	1285.8	1297.2	1304.8	1306.8
15°	1259.1	1266.7	1278.2	1289.6	1291.5
17.5°	1243.9	1242.0	1257.2	1270.6	1274.4
20°	1207.7	1217.2	1234.4	1249.6	1253.4
22.5°	1177.2	1184.8	1207.7	1224.8	1232.5
25°	1146.7	1154.4	1182.9	1200.1	1207.7
27.5°	1108.6	1120.1	1146.7	1171.5	1181.0
30°	1070.5	1082.0	1112.5	1141.0	1152.5
32.5°	1032.4	1045.8	1078.2	1108.6	1122.0
35°	990.5	1003.9	1040.1	1076.3	1091.5
37.5°	946.7	963.9	1002.0	1042.0	1059.1
40°	902.9	920.1	960.1	1005.8	1024.8
42.5°	866.7	874.3	920.1	969.6	988.6
45°	824.8	830.5	878.2	931.5	954.3
47.5°	763.9	784.8	836.2	895.3	918.2
50°	716.2	739.1	792.4	855.3	880.1
52.5°	676.2	691.5	750.5	813.4	842.0
55°	632.4	643.9	704.8	771.5	802.0
57.5°	579.1	600.0	661.0	729.6	760.0
60°	520.0	546.7	613.4	687.7	718.1
62.5°	481.9	497.2	569.6	643.9	678.1
65°	426.7	445.7	521.9	598.1	634.3
67.5°	381.0	400.0	478.1	554.3	590.5
70°	331.4	350.5	432.4	508.6	544.8
72.5°	274.3	301.0	386.7	462.9	501.0
75°	228.6	253.3	337.2	413.4	443.8
77.5°	177.2	209.5	287.6	350.5	373.4
80°	131.4	163.8	234.3	280.0	301.0
82.5°	89.5	121.9	175.2	209.5	221.0
85°	53.3	76.2	112.4	131.4	129.5
87.5°	24.8	32.4	45.7	45.7	43.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)