

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: P309104

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-S-CA125-W2A-U-2700K**

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: P309104  
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-L82765-S-CA125-W2A-U-2700K  
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**

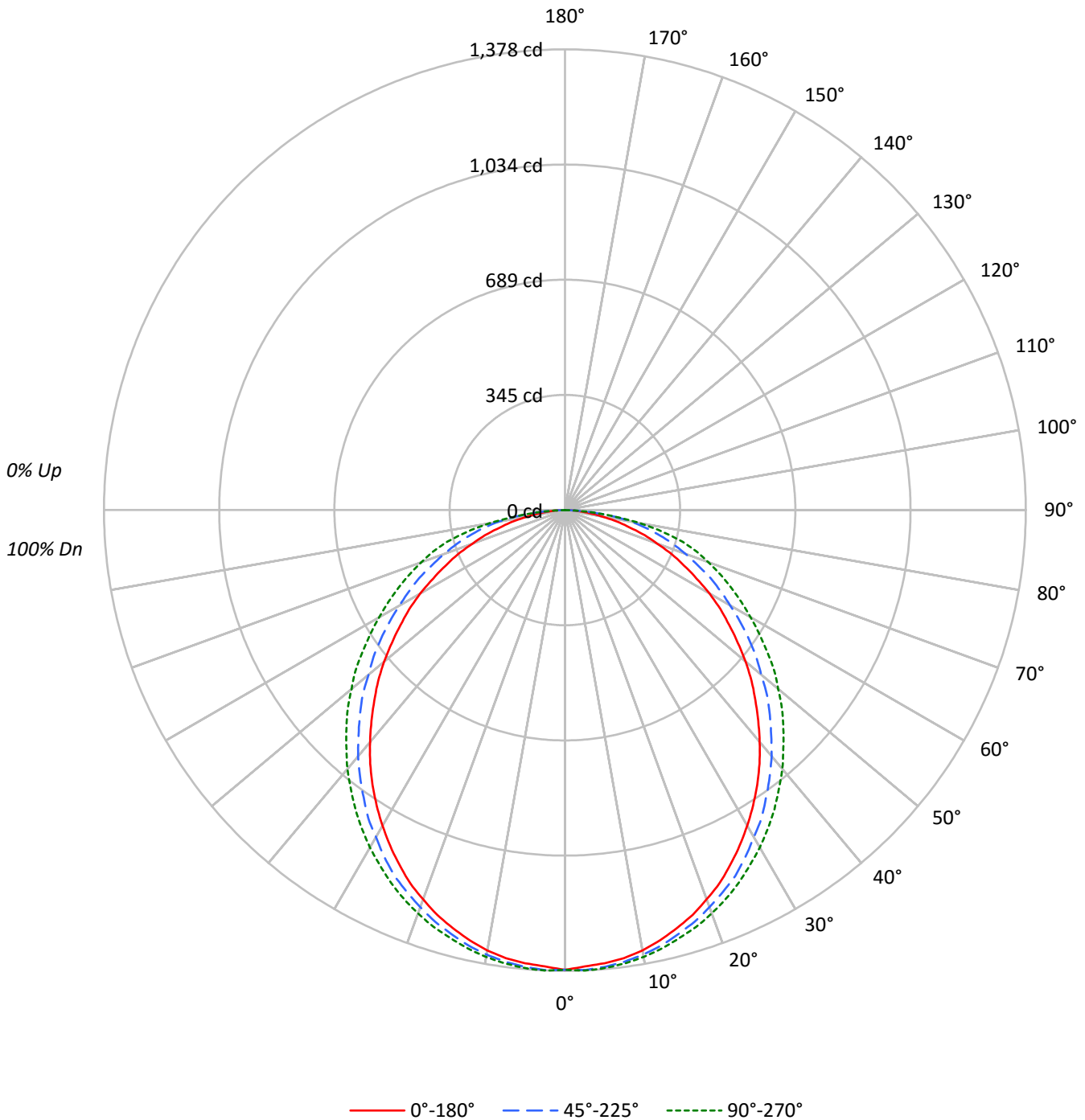
Lumens per Lamp: N/A  
Luminaire Lumens: 3837.0 lumens  
Efficiency: N/A  
Efficacy: 103.1 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 37.2  
Input Voltage (V): NR  
Input Current (A<sub>in</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



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### Luminous Intensity Polar Plot





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**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°	3700	3700	3700
5°	3675	3704	3714
10°	3654	3689	3708
15°	3606	3656	3691
20°	3548	3619	3676
25°	3476	3583	3652
30°	3388	3510	3622
35°	3293	3446	3588
40°	3182	3377	3553
45°	3066	3298	3516
50°	2953	3208	3485
55°	2814	3149	3461
60°	2688	3074	3449
65°	2508	3055	3488
70°	2310	3028	3592
75°	2085	3071	3778
80°	1804	3163	3552
85°	1491	2652	2652



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	130.0	3.4
10°-20°	370.0	9.6
20°-30°	553.6	14.4
30°-40°	655.7	17.1
40°-50°	668.2	17.4
50°-60°	598.9	15.6
60°-70°	468.9	12.2
70°-80°	302.3	7.9
80°-90°	89.3	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°	1053.7	27.5
0°-40°	1709.4	44.5
0°-60°	2976.4	77.6
0°-90°	3837.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3837.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1375	1375	1375	1375	1375	
5°	1361	1364	1371	1373	1375	129
15°	1294	1302	1312	1323	1325	365
25°	1171	1182	1207	1223	1230	539
35°	1002	1015	1049	1081	1092	627
45°	806	824	866	911	924	622
55°	600	619	671	718	738	538
65°	394	417	480	526	548	391
75°	200	231	295	346	363	215
85°	48	66	86	86	86	57
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1374.9	1374.9	1374.9	1374.9	1374.9
2.5°	1366.0	1369.5	1376.7	1378.5	1378.5
5°	1360.6	1364.2	1371.3	1373.1	1374.9
7.5°	1351.6	1353.4	1362.4	1366.0	1367.8
10°	1337.3	1340.9	1349.9	1355.2	1357.0
12.5°	1317.6	1323.0	1333.7	1340.9	1342.7
15°	1294.4	1301.5	1312.3	1323.0	1324.8
17.5°	1269.3	1276.5	1290.8	1303.3	1306.9
20°	1238.9	1247.8	1263.9	1278.2	1283.6
22.5°	1208.4	1215.6	1235.3	1253.2	1258.6
25°	1170.8	1181.6	1206.6	1222.7	1229.9
27.5°	1131.4	1144.0	1169.0	1190.5	1197.7
30°	1090.3	1102.8	1129.7	1156.5	1165.5
32.5°	1047.3	1061.6	1093.8	1120.7	1129.7
35°	1002.5	1015.1	1049.1	1081.3	1092.1
37.5°	956.0	966.7	1006.1	1040.1	1050.9
40°	905.9	920.2	961.4	1000.8	1011.5
42.5°	855.7	871.9	913.0	956.0	966.7
45°	805.6	823.5	866.5	911.2	923.8
47.5°	757.3	771.6	819.9	862.9	880.8
50°	705.4	719.7	766.2	814.6	832.5
52.5°	651.7	671.3	721.5	768.0	789.5
55°	599.7	619.4	671.3	717.9	737.6
57.5°	551.4	567.5	621.2	669.6	689.2
60°	499.5	513.8	571.1	623.0	640.9
62.5°	444.0	465.5	524.5	572.9	594.4
65°	393.9	417.1	479.8	526.3	547.8
67.5°	347.3	368.8	429.7	479.8	503.1
70°	293.6	322.2	384.9	435.0	456.5
72.5°	250.6	275.7	340.1	390.3	413.5
75°	200.5	230.9	295.4	345.5	363.4
77.5°	159.3	189.8	250.6	290.0	299.0
80°	116.4	146.8	204.1	223.8	229.2
82.5°	78.8	107.4	146.8	152.2	154.0
85°	48.3	66.2	85.9	85.9	85.9
87.5°	23.3	26.9	30.4	28.6	28.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)