

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: P308825

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-CA08-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: P308825  
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-L82765-CA08-W2A-U-2700K  
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.08" 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: 3652.0 lumens  
Efficiency: N/A  
Efficacy: 98.2 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

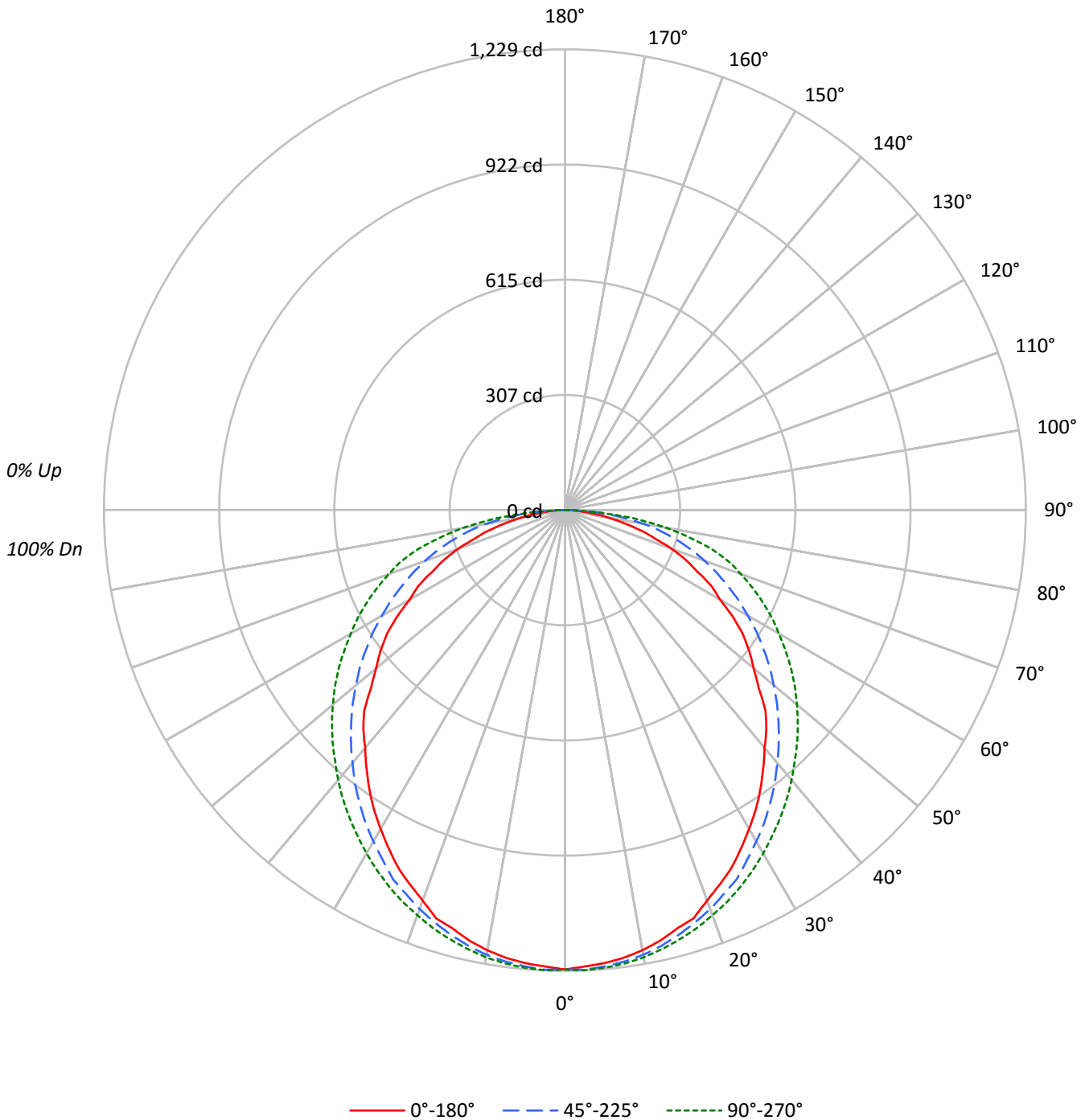
Input Watts (W): 37.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	3297	3297	3297
5°	3277	3300	3310
10°	3257	3291	3310
15°	3219	3267	3302
20°	3174	3243	3294
25°	3124	3223	3290
30°	3052	3172	3286
35°	2986	3135	3290
40°	2910	3094	3303
45°	2880	3067	3333
50°	2751	3044	3381
55°	2723	3034	3453
60°	2568	3029	3547
65°	2493	3049	3706
70°	2393	3122	3933
75°	2180	3217	4235
80°	1869	3332	4280
85°	1510	3183	3671



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	115.9	3.2
10°-20°	330.7	9.1
20°-30°	497.8	13.6
30°-40°	597.5	16.4
40°-50°	624.4	17.1
50°-60°	581.9	15.9
60°-70°	477.3	13.1
70°-80°	321.6	8.8
80°-90°	104.7	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°	944.5	25.9
0°-40°	1541.9	42.2
0°-60°	2748.3	75.3
0°-90°	3652.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3652.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1225	1225	1225	1225	1225	
5°	1213	1216	1222	1224	1225	115
15°	1155	1162	1173	1183	1185	327
25°	1052	1059	1085	1101	1108	484
35°	909	921	954	988	1002	568
45°	757	762	806	855	876	578
55°	580	591	647	708	736	514
65°	392	409	479	549	582	389
75°	210	232	309	379	407	220
85°	49	70	103	121	119	58
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1225.3	1225.3	1225.3	1225.3	1225.3
2.5°	1218.3	1221.8	1227.0	1228.8	1228.8
5°	1213.0	1216.5	1221.8	1223.5	1225.3
7.5°	1204.3	1207.8	1214.8	1218.3	1220.0
10°	1192.1	1195.6	1204.3	1209.5	1211.3
12.5°	1176.3	1179.8	1190.3	1197.3	1199.1
15°	1155.4	1162.4	1172.8	1183.3	1185.1
17.5°	1141.4	1139.6	1153.6	1165.8	1169.3
20°	1108.2	1116.9	1132.6	1146.6	1150.1
22.5°	1080.2	1087.2	1108.2	1123.9	1130.9
25°	1052.2	1059.2	1085.4	1101.2	1108.2
27.5°	1017.3	1027.8	1052.2	1075.0	1083.7
30°	982.3	992.8	1020.8	1047.0	1057.5
32.5°	947.4	959.6	989.3	1017.3	1029.5
35°	908.9	921.1	954.4	987.6	1001.5
37.5°	868.7	884.4	919.4	956.1	971.8
40°	828.5	844.2	880.9	922.9	940.4
42.5°	795.3	802.3	844.2	889.7	907.2
45°	756.8	762.1	805.8	854.7	875.7
47.5°	700.9	720.1	767.3	821.5	842.5
50°	657.2	678.2	727.1	784.8	807.5
52.5°	620.5	634.5	688.7	746.4	772.6
55°	580.3	590.8	646.7	707.9	735.9
57.5°	531.4	550.6	606.5	669.4	697.4
60°	477.2	501.6	562.8	631.0	659.0
62.5°	442.2	456.2	522.6	590.8	622.3
65°	391.5	409.0	478.9	548.8	582.1
67.5°	349.6	367.1	438.7	508.6	541.8
70°	304.1	321.6	396.8	466.7	499.9
72.5°	251.7	276.2	354.8	424.7	459.7
75°	209.7	232.5	309.4	379.3	407.3
77.5°	162.6	192.3	263.9	321.6	342.6
80°	120.6	150.3	215.0	256.9	276.2
82.5°	82.2	111.9	160.8	192.3	202.8
85°	48.9	69.9	103.1	120.6	118.9
87.5°	22.7	29.7	41.9	41.9	40.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)