

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: P308781

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-CA08-W2A-U-3000K**

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: P308781  
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: 22FCZ2-39HE-UNV-L82765-CA08-W2A-U-3000K  
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**

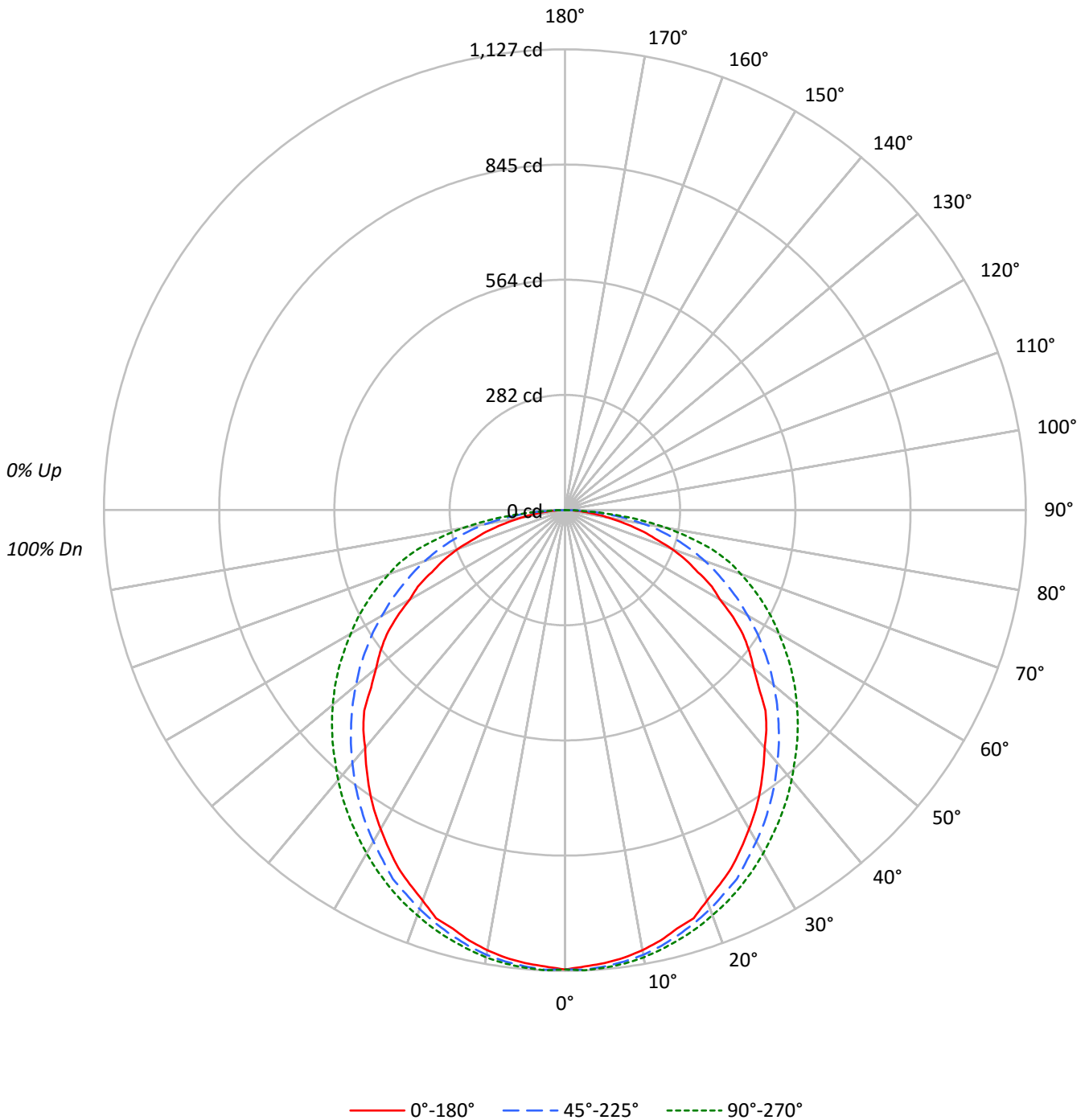
Lumens per Lamp: N/A  
Luminaire Lumens: 3349.0 lumens  
Efficiency: N/A  
Efficacy: 104.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 32.2  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	3024	3024	3024
5°	3005	3026	3035
10°	2987	3018	3035
15°	2952	2996	3028
20°	2910	2975	3020
25°	2865	2956	3017
30°	2799	2909	3013
35°	2738	2875	3017
40°	2669	2838	3029
45°	2641	2812	3056
50°	2523	2792	3100
55°	2497	2783	3166
60°	2355	2778	3252
65°	2286	2797	3399
70°	2194	2863	3607
75°	1999	2950	3883
80°	1714	3056	3925
85°	1386	2921	3365



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.3	3.2
10°-20°	303.3	9.1
20°-30°	456.5	13.6
30°-40°	547.9	16.4
40°-50°	572.6	17.1
50°-60°	533.7	15.9
60°-70°	437.7	13.1
70°-80°	294.9	8.8
80°-90°	96.1	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°	866.1	25.9
0°-40°	1414.0	42.2
0°-60°	2520.3	75.3
0°-90°	3349.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3349.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1124	1124	1124	1124	1124	
5°	1112	1116	1120	1122	1124	106
15°	1060	1066	1076	1085	1087	299
25°	965	971	995	1010	1016	444
35°	834	845	875	906	918	521
45°	694	699	739	784	803	530
55°	532	542	593	649	675	472
65°	359	375	439	503	534	357
75°	192	213	284	348	374	202
85°	45	64	95	111	109	53
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1123.6	1123.6	1123.6	1123.6	1123.6
2.5°	1117.2	1120.4	1125.2	1126.8	1126.8
5°	1112.4	1115.6	1120.4	1122.0	1123.6
7.5°	1104.4	1107.6	1114.0	1117.2	1118.8
10°	1093.2	1096.4	1104.4	1109.2	1110.8
12.5°	1078.7	1081.9	1091.6	1098.0	1099.6
15°	1059.5	1065.9	1075.5	1085.1	1086.8
17.5°	1046.7	1045.1	1057.9	1069.1	1072.3
20°	1016.2	1024.2	1038.7	1051.5	1054.7
22.5°	990.6	997.0	1016.2	1030.7	1037.1
25°	964.9	971.3	995.4	1009.8	1016.2
27.5°	932.9	942.5	964.9	985.8	993.8
30°	900.8	910.4	936.1	960.1	969.7
32.5°	868.8	880.0	907.2	932.9	944.1
35°	833.5	844.7	875.2	905.6	918.4
37.5°	796.6	811.1	843.1	876.8	891.2
40°	759.8	774.2	807.9	846.3	862.3
42.5°	729.3	735.7	774.2	815.9	831.9
45°	694.0	698.9	738.9	783.8	803.0
47.5°	642.8	660.4	703.7	753.4	772.6
50°	602.7	621.9	666.8	719.7	740.5
52.5°	569.0	581.8	631.5	684.4	708.5
55°	532.2	541.8	593.1	649.2	674.8
57.5°	487.3	504.9	556.2	613.9	639.5
60°	437.6	460.0	516.1	578.6	604.3
62.5°	405.5	418.4	479.3	541.8	570.6
65°	359.0	375.1	439.2	503.3	533.8
67.5°	320.6	336.6	402.3	466.4	496.9
70°	278.9	294.9	363.9	428.0	458.4
72.5°	230.8	253.3	325.4	389.5	421.6
75°	192.3	213.2	283.7	347.8	373.5
77.5°	149.1	176.3	242.0	294.9	314.2
80°	110.6	137.8	197.2	235.6	253.3
82.5°	75.3	102.6	147.5	176.3	185.9
85°	44.9	64.1	94.6	110.6	109.0
87.5°	20.8	27.2	38.5	38.5	36.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)