

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: P308793

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-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: P308793  
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-CA125-W2A-U-4500K  
Description: 2'X2' TROFFER LED MODULE, RIBBED 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: 3590.0 lumens  
Efficiency: N/A  
Efficacy: 108.8 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

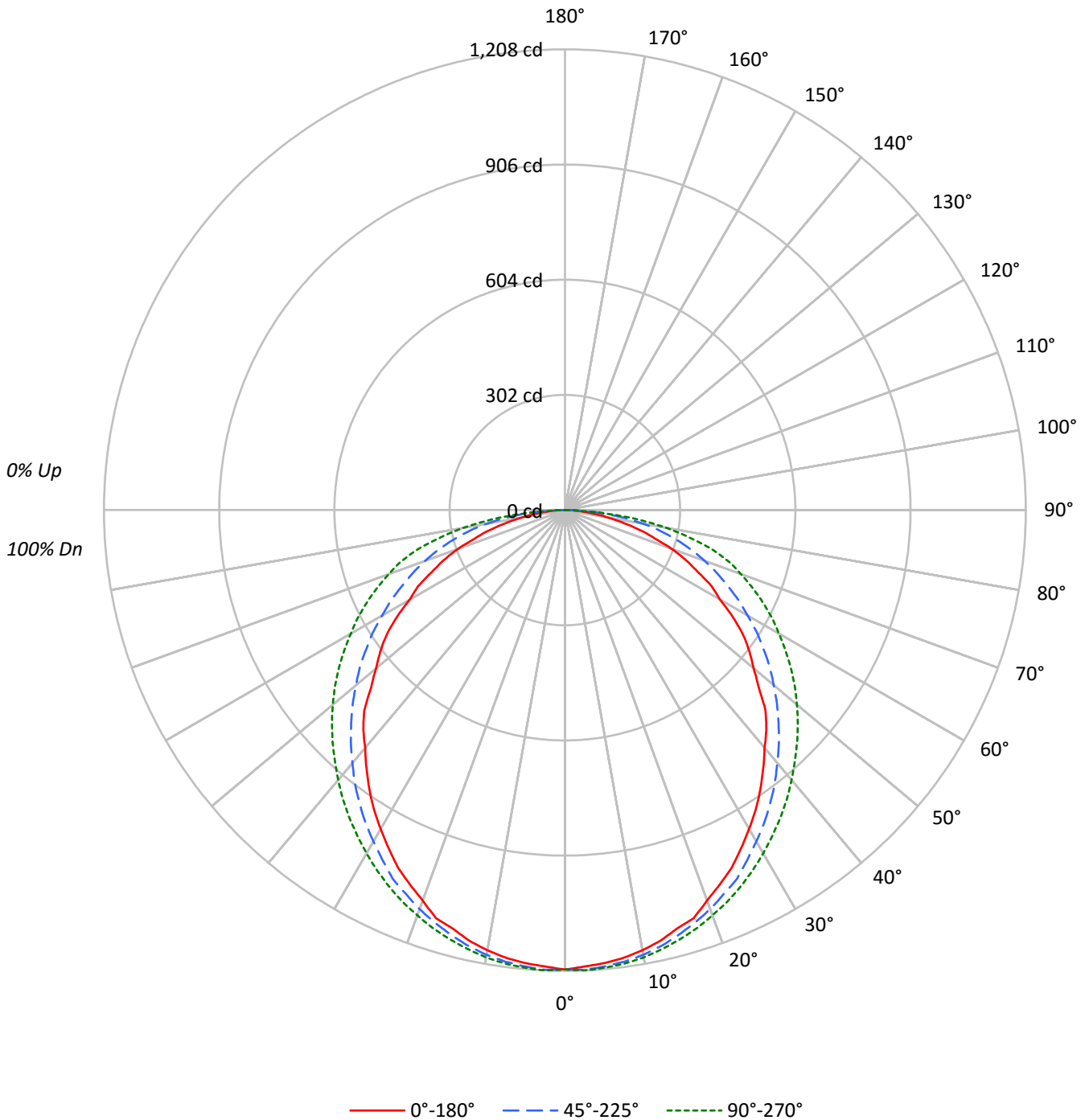
Input Watts (W): 33  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3241	3241	3241
5°	3221	3244	3254
10°	3202	3235	3254
15°	3164	3212	3246
20°	3120	3188	3238
25°	3071	3168	3235
30°	3000	3118	3230
35°	2935	3082	3234
40°	2861	3042	3247
45°	2831	3014	3276
50°	2705	2992	3323
55°	2677	2982	3394
60°	2525	2978	3486
65°	2451	2998	3643
70°	2353	3068	3866
75°	2144	3162	4162
80°	1838	3274	4207
85°	1485	3131	3606



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	114.0	3.2
10°-20°	325.1	9.1
20°-30°	489.3	13.6
30°-40°	587.3	16.4
40°-50°	613.9	17.1
50°-60°	572.1	15.9
60°-70°	469.2	13.1
70°-80°	316.2	8.8
80°-90°	103.0	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°	928.4	25.9
0°-40°	1515.8	42.2
0°-60°	2701.7	75.3
0°-90°	3590.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3590.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1204	1204	1204	1204	1204	
5°	1192	1196	1201	1203	1204	113
15°	1136	1143	1153	1163	1165	321
25°	1034	1041	1067	1082	1089	476
35°	894	906	938	971	984	559
45°	744	749	792	840	861	568
55°	570	581	636	696	723	505
65°	385	402	471	540	572	383
75°	206	228	304	373	400	217
85°	48	69	101	119	117	57
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1204.5	1204.5	1204.5	1204.5	1204.5
2.5°	1197.6	1201.0	1206.2	1207.9	1207.9
5°	1192.4	1195.9	1201.0	1202.8	1204.5
7.5°	1183.9	1187.3	1194.2	1197.6	1199.3
10°	1171.8	1175.3	1183.9	1189.0	1190.7
12.5°	1156.4	1159.8	1170.1	1177.0	1178.7
15°	1135.7	1142.6	1152.9	1163.2	1165.0
17.5°	1122.0	1120.3	1134.0	1146.1	1149.5
20°	1089.4	1097.9	1113.4	1127.2	1130.6
22.5°	1061.9	1068.7	1089.4	1104.8	1111.7
25°	1034.4	1041.2	1067.0	1082.5	1089.4
27.5°	1000.0	1010.3	1034.4	1056.7	1065.3
30°	965.6	976.0	1003.4	1029.2	1039.5
32.5°	931.3	943.3	972.5	1000.0	1012.0
35°	893.5	905.5	938.2	970.8	984.5
37.5°	854.0	869.4	903.8	939.9	955.3
40°	814.4	829.9	866.0	907.2	924.4
42.5°	781.8	788.7	829.9	874.6	891.8
45°	744.0	749.1	792.1	840.2	860.8
47.5°	689.0	707.9	754.3	807.6	828.2
50°	646.1	666.7	714.8	771.5	793.8
52.5°	610.0	623.7	677.0	733.7	759.5
55°	570.5	580.8	635.7	695.9	723.4
57.5°	522.3	541.2	596.2	658.1	685.6
60°	469.1	493.1	553.3	620.3	647.8
62.5°	434.7	448.5	513.7	580.8	611.7
65°	384.9	402.1	470.8	539.5	572.2
67.5°	343.6	360.8	431.3	500.0	532.6
70°	299.0	316.2	390.0	458.8	491.4
72.5°	247.4	271.5	348.8	417.5	451.9
75°	206.2	228.5	304.1	372.9	400.3
77.5°	159.8	189.0	259.5	316.2	336.8
80°	118.6	147.8	211.3	252.6	271.5
82.5°	80.8	110.0	158.1	189.0	199.3
85°	48.1	68.7	101.4	118.6	116.8
87.5°	22.3	29.2	41.2	41.2	39.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)