

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: P309068

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-S-CP125-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: P309068  
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: 22FCZ2-39HE-UNV-L82765-S-CP125-W2A-U-2700K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB 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**

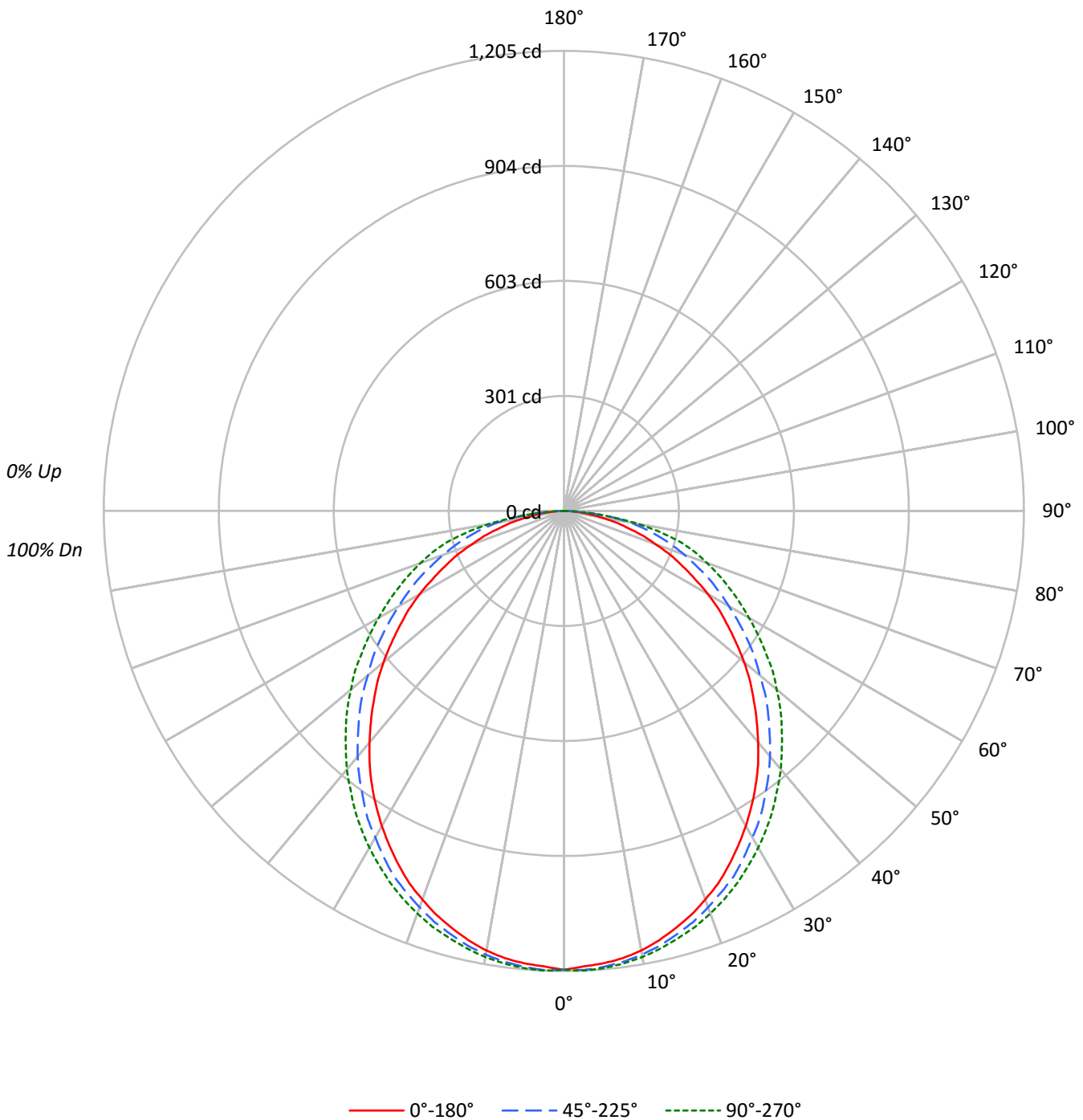
Lumens per Lamp: N/A  
Luminaire Lumens: 3354.0 lumens  
Efficiency: N/A  
Efficacy: 103.5 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 32.4  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	3234	3234	3234
5°	3213	3238	3246
10°	3194	3224	3241
15°	3152	3196	3226
20°	3101	3164	3213
25°	3039	3132	3192
30°	2961	3068	3165
35°	2879	3012	3136
40°	2781	2952	3106
45°	2680	2882	3073
50°	2581	2804	3046
55°	2459	2753	3025
60°	2350	2687	3015
65°	2192	2670	3049
70°	2019	2648	3139
75°	1823	2685	3303
80°	1576	2765	3104
85°	1306	2319	2319



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.7	3.4
10°-20°	323.4	9.6
20°-30°	484.0	14.4
30°-40°	573.1	17.1
40°-50°	584.1	17.4
50°-60°	523.5	15.6
60°-70°	409.9	12.2
70°-80°	264.3	7.9
80°-90°	78.1	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°	921.1	27.5
0°-40°	1494.2	44.5
0°-60°	2601.8	77.6
0°-90°	3354.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3354.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1202	1202	1202	1202	1202	
5°	1189	1192	1199	1200	1202	113
15°	1131	1138	1147	1156	1158	319
25°	1023	1033	1055	1069	1075	471
35°	876	887	917	945	955	548
45°	704	720	757	796	808	544
55°	524	542	587	628	645	470
65°	344	365	419	460	479	342
75°	175	202	258	302	318	188
85°	42	58	75	75	75	50
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1201.8	1201.8	1201.8	1201.8	1201.8
2.5°	1194.0	1197.1	1203.4	1205.0	1205.0
5°	1189.3	1192.5	1198.7	1200.3	1201.8
7.5°	1181.5	1183.1	1190.9	1194.0	1195.6
10°	1169.0	1172.1	1179.9	1184.6	1186.2
12.5°	1151.8	1156.5	1165.9	1172.1	1173.7
15°	1131.4	1137.7	1147.1	1156.5	1158.0
17.5°	1109.5	1115.8	1128.3	1139.2	1142.4
20°	1082.9	1090.7	1104.8	1117.3	1122.0
22.5°	1056.3	1062.6	1079.8	1095.4	1100.1
25°	1023.4	1032.8	1054.7	1068.8	1075.1
27.5°	989.0	1000.0	1021.9	1040.7	1046.9
30°	953.0	964.0	987.5	1010.9	1018.7
32.5°	915.5	928.0	956.2	979.6	987.5
35°	876.3	887.3	917.0	945.2	954.6
37.5°	835.7	845.0	879.5	909.2	918.6
40°	791.8	804.4	840.4	874.8	884.2
42.5°	748.0	762.1	798.1	835.7	845.0
45°	704.2	719.9	757.4	796.5	807.5
47.5°	662.0	674.5	716.7	754.3	769.9
50°	616.6	629.1	669.8	712.0	727.7
52.5°	569.6	586.8	630.7	671.3	690.1
55°	524.2	541.5	586.8	627.5	644.7
57.5°	482.0	496.1	543.0	585.3	602.5
60°	436.6	449.1	499.2	544.6	560.2
62.5°	388.1	406.9	458.5	500.8	519.5
65°	344.3	364.6	419.4	460.1	478.9
67.5°	303.6	322.4	375.6	419.4	439.7
70°	256.6	281.7	336.5	380.3	399.0
72.5°	219.1	241.0	297.3	341.1	361.5
75°	175.3	201.9	258.2	302.0	317.7
77.5°	139.3	165.9	219.1	253.5	261.3
80°	101.7	128.3	178.4	195.6	200.3
82.5°	68.9	93.9	128.3	133.0	134.6
85°	42.3	57.9	75.1	75.1	75.1
87.5°	20.3	23.5	26.6	25.0	25.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)