

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: P309087

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-S-CP250-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: P309087  
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-CP250-W2A-U-3000K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.250" 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**

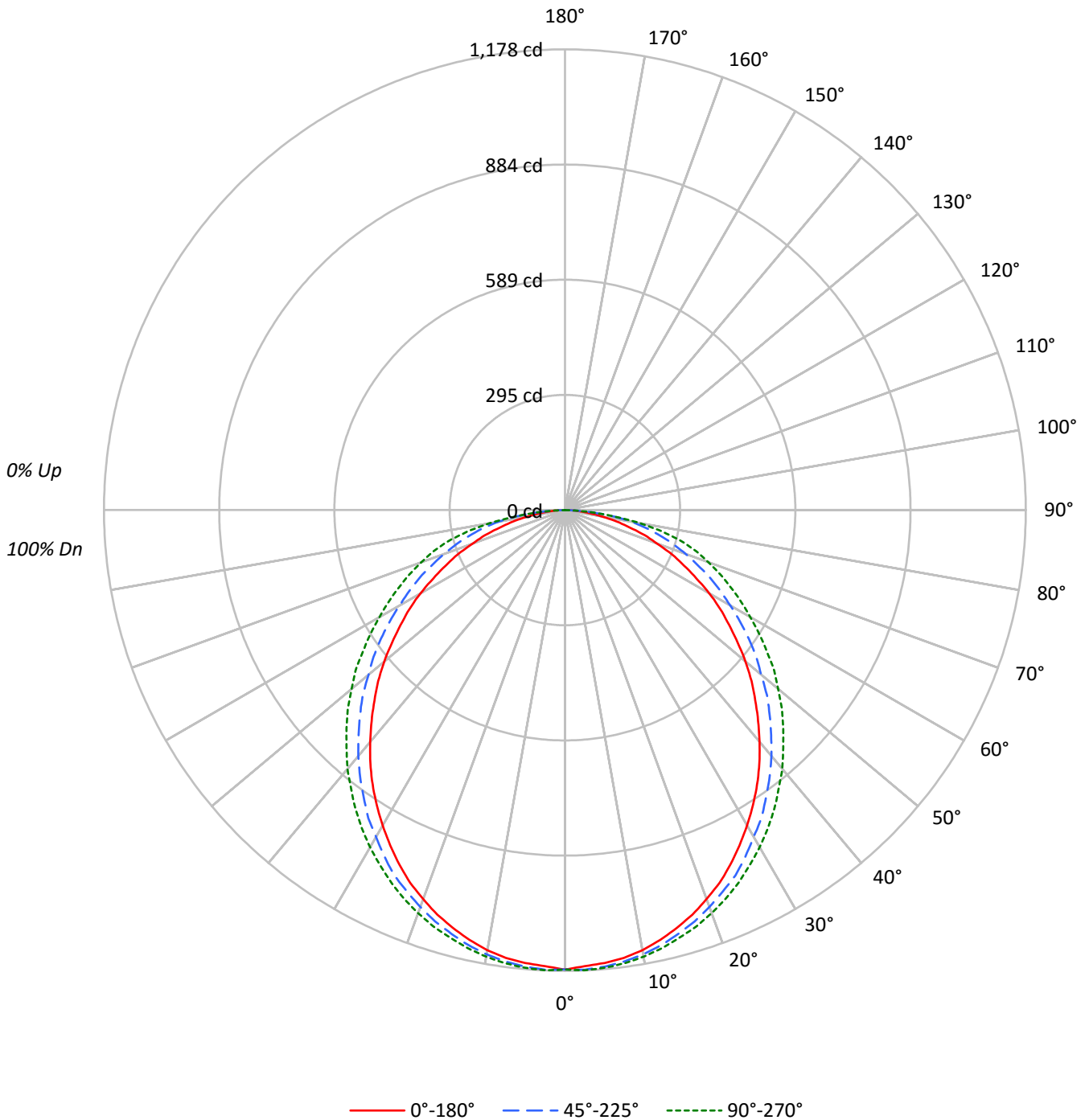
Lumens per Lamp: N/A  
Luminaire Lumens: 3278.0 lumens  
Efficiency: N/A  
Efficacy: 101.8 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 32.2  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	3161	3161	3161
5°	3140	3165	3173
10°	3122	3151	3168
15°	3081	3123	3153
20°	3031	3092	3140
25°	2970	3061	3120
30°	2894	2999	3094
35°	2814	2944	3065
40°	2719	2885	3035
45°	2619	2817	3003
50°	2523	2740	2977
55°	2404	2691	2956
60°	2296	2626	2947
65°	2143	2610	2980
70°	1973	2587	3068
75°	1781	2624	3228
80°	1540	2703	3034
85°	1275	2266	2266



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.1	3.4
10°-20°	316.1	9.6
20°-30°	473.0	14.4
30°-40°	560.1	17.1
40°-50°	570.8	17.4
50°-60°	511.6	15.6
60°-70°	400.6	12.2
70°-80°	258.3	7.9
80°-90°	76.3	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°	900.2	27.5
0°-40°	1460.3	44.5
0°-60°	2542.8	77.6
0°-90°	3278.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3278.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1175	1175	1175	1175	1175	
5°	1162	1165	1172	1173	1175	110
15°	1106	1112	1121	1130	1132	312
25°	1000	1009	1031	1045	1051	460
35°	856	867	896	924	933	535
45°	688	704	740	778	789	532
55°	512	529	574	613	630	459
65°	336	356	410	450	468	334
75°	171	197	252	295	310	184
85°	41	57	73	73	73	48
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1174.6	1174.6	1174.6	1174.6	1174.6
2.5°	1167.0	1170.0	1176.1	1177.7	1177.7
5°	1162.4	1165.4	1171.6	1173.1	1174.6
7.5°	1154.7	1156.3	1163.9	1167.0	1168.5
10°	1142.5	1145.6	1153.2	1157.8	1159.3
12.5°	1125.7	1130.3	1139.4	1145.6	1147.1
15°	1105.8	1111.9	1121.1	1130.3	1131.8
17.5°	1084.4	1090.5	1102.7	1113.4	1116.5
20°	1058.4	1066.0	1079.8	1092.0	1096.6
22.5°	1032.4	1038.5	1055.3	1070.6	1075.2
25°	1000.3	1009.4	1030.8	1044.6	1050.7
27.5°	966.6	977.3	998.7	1017.1	1023.2
30°	931.4	942.1	965.1	988.0	995.7
32.5°	894.7	907.0	934.5	957.4	965.1
35°	856.5	867.2	896.3	923.8	933.0
37.5°	816.7	825.9	859.5	888.6	897.8
40°	773.9	786.1	821.3	855.0	864.1
42.5°	731.1	744.8	780.0	816.7	825.9
45°	688.2	703.5	740.2	778.5	789.2
47.5°	647.0	659.2	700.5	737.2	752.5
50°	602.6	614.8	654.6	695.9	711.2
52.5°	556.7	573.5	616.4	656.1	674.5
55°	512.4	529.2	573.5	613.3	630.1
57.5°	471.1	484.8	530.7	572.0	588.8
60°	426.7	438.9	487.9	532.2	547.5
62.5°	379.3	397.7	448.1	489.4	507.8
65°	336.5	356.4	409.9	449.7	468.0
67.5°	296.7	315.1	367.1	409.9	429.8
70°	250.8	275.3	328.8	371.7	390.0
72.5°	214.1	235.5	290.6	333.4	353.3
75°	171.3	197.3	252.4	295.2	310.5
77.5°	136.1	162.1	214.1	247.8	255.4
80°	99.4	125.4	174.4	191.2	195.8
82.5°	67.3	91.8	125.4	130.0	131.5
85°	41.3	56.6	73.4	73.4	73.4
87.5°	19.9	22.9	26.0	24.5	24.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)