

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: P309048

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-S-CP250-W2A-U-5700K**

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: P309048  
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: 22FCZ2-34HE-UNV-L82765-S-CP250-W2A-U-5700K  
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**

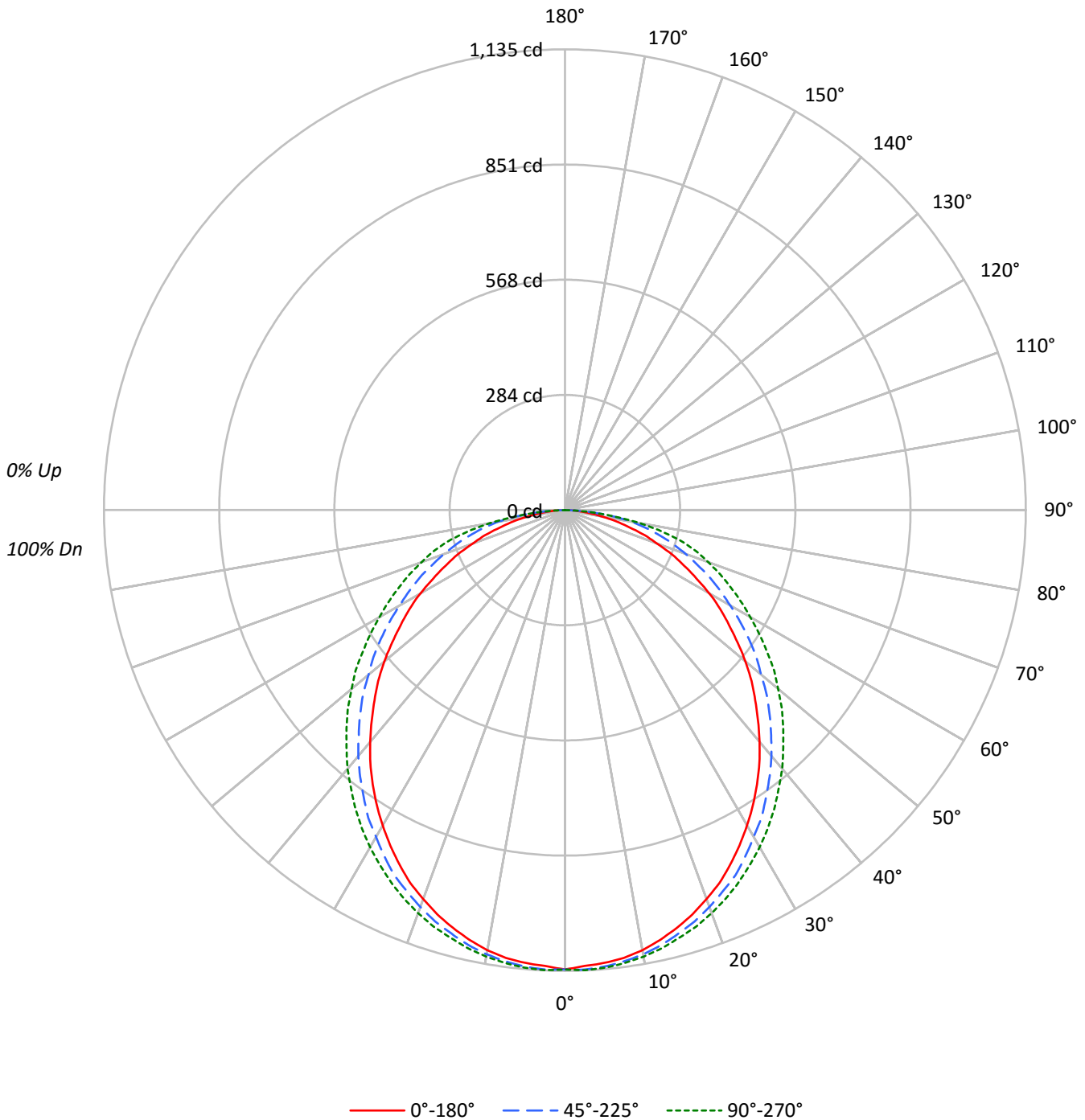
Lumens per Lamp: N/A  
Luminaire Lumens: 3158.0 lumens  
Efficiency: N/A  
Efficacy: 111.2 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 28.4  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	3045	3045	3045
5°	3025	3049	3057
10°	3008	3036	3052
15°	2968	3009	3038
20°	2920	2979	3025
25°	2861	2949	3006
30°	2788	2889	2980
35°	2711	2836	2953
40°	2619	2779	2924
45°	2524	2714	2893
50°	2430	2640	2869
55°	2316	2592	2848
60°	2213	2530	2839
65°	2064	2514	2871
70°	1901	2493	2956
75°	1716	2528	3110
80°	1485	2603	2923
85°	1229	2183	2183



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.0	3.4
10°-20°	304.5	9.6
20°-30°	455.7	14.4
30°-40°	539.6	17.1
40°-50°	550.0	17.4
50°-60°	492.9	15.6
60°-70°	385.9	12.2
70°-80°	248.8	7.9
80°-90°	73.5	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°	867.2	27.5
0°-40°	1406.9	44.5
0°-60°	2449.7	77.6
0°-90°	3158.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3158.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1132	1132	1132	1132	1132	
5°	1120	1123	1129	1130	1132	106
15°	1065	1071	1080	1089	1090	300
25°	964	972	993	1006	1012	444
35°	825	835	863	890	899	516
45°	663	678	713	750	760	512
55°	494	510	552	591	607	443
65°	324	343	395	433	451	322
75°	165	190	243	284	299	177
85°	40	54	71	71	71	47
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1131.6	1131.6	1131.6	1131.6	1131.6
2.5°	1124.2	1127.2	1133.1	1134.6	1134.6
5°	1119.8	1122.8	1128.7	1130.1	1131.6
7.5°	1112.5	1113.9	1121.3	1124.2	1125.7
10°	1100.7	1103.6	1111.0	1115.4	1116.9
12.5°	1084.5	1088.9	1097.7	1103.6	1105.1
15°	1065.3	1071.2	1080.0	1088.9	1090.4
17.5°	1044.7	1050.6	1062.4	1072.7	1075.6
20°	1019.6	1027.0	1040.3	1052.0	1056.5
22.5°	994.6	1000.5	1016.7	1031.4	1035.8
25°	963.6	972.5	993.1	1006.4	1012.3
27.5°	931.2	941.5	962.2	979.8	985.7
30°	897.3	907.6	929.7	951.8	959.2
32.5°	862.0	873.8	900.3	922.4	929.7
35°	825.1	835.4	863.4	890.0	898.8
37.5°	786.8	795.7	828.1	856.1	864.9
40°	745.6	757.4	791.2	823.7	832.5
42.5°	704.3	717.6	751.5	786.8	795.7
45°	663.1	677.8	713.1	750.0	760.3
47.5°	623.3	635.1	674.8	710.2	724.9
50°	580.5	592.3	630.6	670.4	685.2
52.5°	536.3	552.5	593.8	632.1	649.8
55°	493.6	509.8	552.5	590.9	607.1
57.5°	453.8	467.1	511.3	551.1	567.3
60°	411.1	422.9	470.0	512.8	527.5
62.5°	365.4	383.1	431.7	471.5	489.2
65°	324.2	343.3	394.9	433.2	450.9
67.5°	285.8	303.5	353.6	394.9	414.0
70°	241.6	265.2	316.8	358.0	375.7
72.5°	206.3	226.9	280.0	321.2	340.4
75°	165.0	190.1	243.1	284.4	299.1
77.5°	131.1	156.2	206.3	238.7	246.1
80°	95.8	120.8	168.0	184.2	188.6
82.5°	64.8	88.4	120.8	125.2	126.7
85°	39.8	54.5	70.7	70.7	70.7
87.5°	19.2	22.1	25.0	23.6	23.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)