

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: P312971

Luminaire Tested: **22FCZ2-34HE-UNV-L83050-S-CA125-W2A-U-3500K**

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: P312971  
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-L83050-S-CA125-W2A-U-3500K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET  
Light Source: (168) 3500K 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**

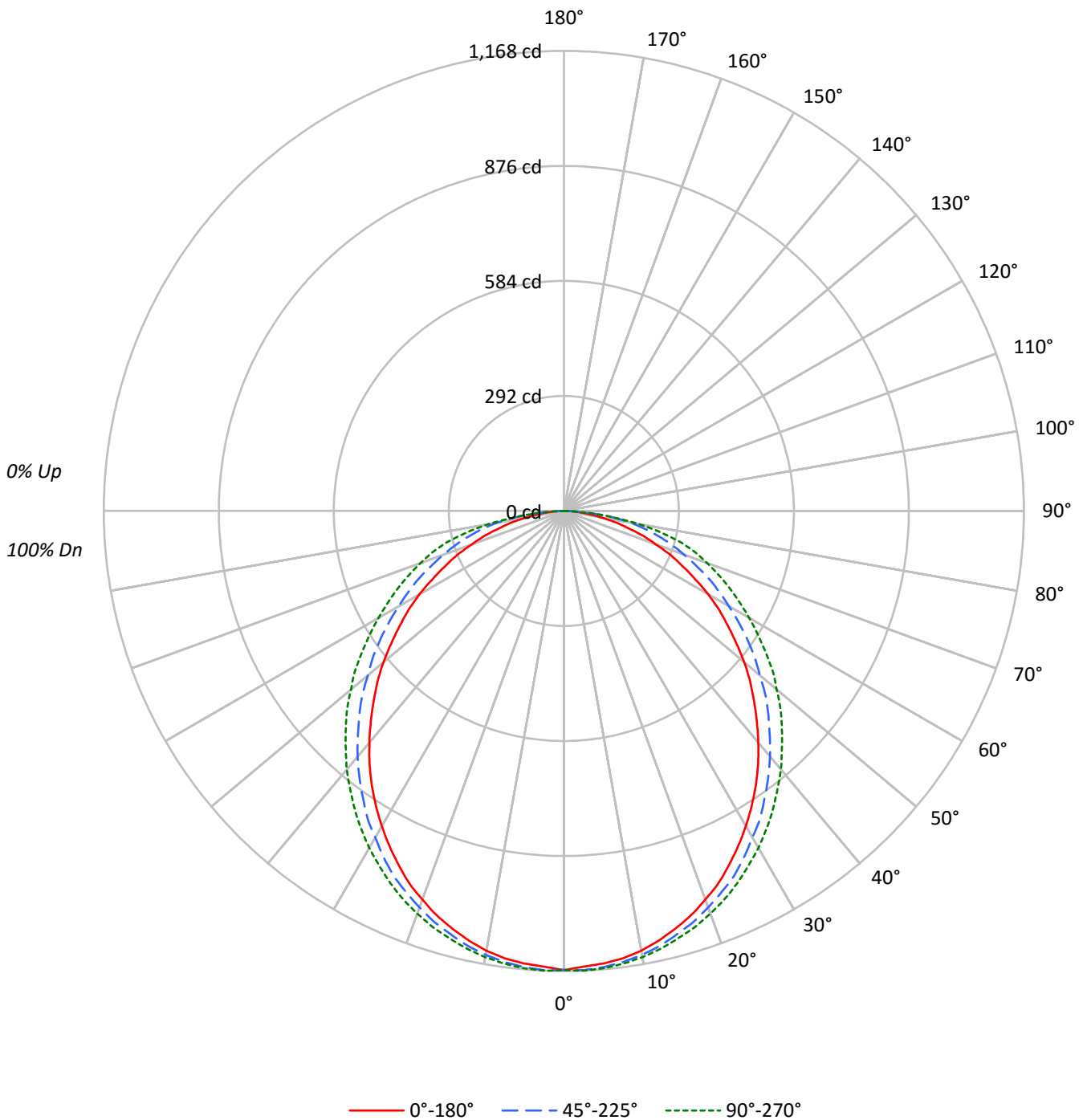
Lumens per Lamp: N/A  
Luminaire Lumens: 3252.0 lumens  
Efficiency: N/A  
Efficacy: 117.8 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 27.6  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	3136	3136	3136
5°	3115	3140	3148
10°	3097	3126	3143
15°	3056	3098	3128
20°	3007	3068	3115
25°	2946	3037	3095
30°	2871	2975	3069
35°	2791	2921	3041
40°	2697	2862	3012
45°	2598	2795	2979
50°	2503	2719	2954
55°	2385	2670	2933
60°	2278	2605	2923
65°	2125	2589	2956
70°	1958	2567	3044
75°	1766	2603	3202
80°	1528	2681	3009
85°	1266	2248	2248



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	110.2	3.4
10°-20°	313.6	9.6
20°-30°	469.2	14.4
30°-40°	555.7	17.1
40°-50°	566.3	17.4
50°-60°	507.6	15.6
60°-70°	397.4	12.2
70°-80°	256.2	7.9
80°-90°	75.7	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°	893.1	27.5
0°-40°	1448.7	44.5
0°-60°	2522.7	77.6
0°-90°	3252.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3252.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1165	1165	1165	1165	1165	
5°	1153	1156	1162	1164	1165	109
15°	1097	1103	1112	1121	1123	309
25°	992	1001	1023	1036	1042	457
35°	850	860	889	916	926	531
45°	683	698	734	772	783	527
55°	508	525	569	608	625	456
65°	334	354	407	446	464	332
75°	170	196	250	293	308	182
85°	41	56	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°	1165.3	1165.3	1165.3	1165.3	1165.3
2.5°	1157.7	1160.7	1166.8	1168.3	1168.3
5°	1153.2	1156.2	1162.3	1163.8	1165.3
7.5°	1145.6	1147.1	1154.7	1157.7	1159.2
10°	1133.4	1136.5	1144.1	1148.6	1150.1
12.5°	1116.7	1121.3	1130.4	1136.5	1138.0
15°	1097.0	1103.1	1112.2	1121.3	1122.8
17.5°	1075.8	1081.8	1094.0	1104.6	1107.6
20°	1050.0	1057.6	1071.2	1083.4	1087.9
22.5°	1024.2	1030.3	1046.9	1062.1	1066.7
25°	992.3	1001.4	1022.7	1036.3	1042.4
27.5°	958.9	969.6	990.8	1009.0	1015.1
30°	924.0	934.7	957.4	980.2	987.8
32.5°	887.6	899.8	927.1	949.8	957.4
35°	849.7	860.3	889.1	916.5	925.6
37.5°	810.2	819.3	852.7	881.6	890.7
40°	767.8	779.9	814.8	848.2	857.3
42.5°	725.3	738.9	773.8	810.2	819.3
45°	682.8	698.0	734.4	772.3	782.9
47.5°	641.8	654.0	694.9	731.3	746.5
50°	597.8	610.0	649.4	690.4	705.5
52.5°	552.3	569.0	611.5	650.9	669.1
55°	508.3	525.0	569.0	608.4	625.1
57.5°	467.3	481.0	526.5	567.5	584.2
60°	423.3	435.5	484.0	528.0	543.2
62.5°	376.3	394.5	444.6	485.5	503.7
65°	333.8	353.5	406.6	446.1	464.3
67.5°	294.4	312.6	364.2	406.6	426.4
70°	248.8	273.1	326.2	368.7	386.9
72.5°	212.4	233.7	288.3	330.8	350.5
75°	169.9	195.7	250.4	292.8	308.0
77.5°	135.0	160.8	212.4	245.8	253.4
80°	98.6	124.4	173.0	189.7	194.2
82.5°	66.8	91.0	124.4	129.0	130.5
85°	41.0	56.1	72.8	72.8	72.8
87.5°	19.7	22.8	25.8	24.3	24.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)