

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: P309016

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-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: P309016  
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-CA125-W2A-U-3500K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH 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**

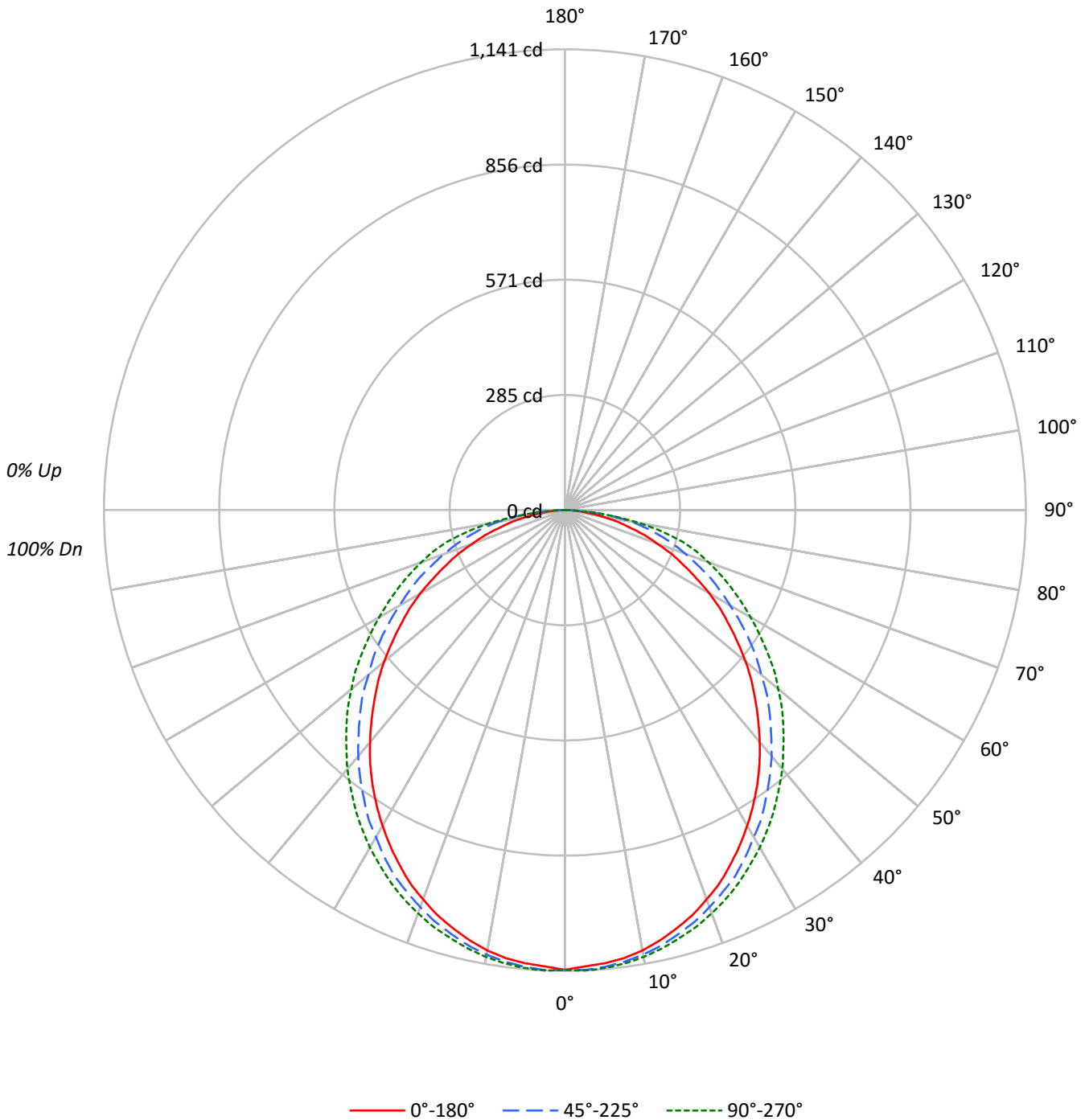
Lumens per Lamp: N/A  
Luminaire Lumens: 3177.0 lumens  
Efficiency: N/A  
Efficacy: 114.7 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 27.7  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	3063	3063	3063
5°	3043	3067	3075
10°	3026	3054	3070
15°	2986	3027	3056
20°	2938	2997	3044
25°	2878	2966	3024
30°	2805	2906	2999
35°	2727	2853	2970
40°	2635	2796	2942
45°	2538	2730	2911
50°	2445	2656	2886
55°	2330	2608	2865
60°	2226	2545	2856
65°	2076	2530	2888
70°	1913	2507	2974
75°	1726	2543	3129
80°	1494	2619	2940
85°	1235	2198	2198



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.7	3.4
10°-20°	306.4	9.6
20°-30°	458.4	14.4
30°-40°	542.9	17.1
40°-50°	553.3	17.4
50°-60°	495.9	15.6
60°-70°	388.2	12.2
70°-80°	250.3	7.9
80°-90°	74.0	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°	872.4	27.5
0°-40°	1415.3	44.5
0°-60°	2464.5	77.6
0°-90°	3177.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3177.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1138	1138	1138	1138	1138	
5°	1127	1130	1136	1137	1138	107
15°	1072	1078	1086	1095	1097	302
25°	969	978	999	1012	1018	446
35°	830	840	869	895	904	519
45°	667	682	717	754	765	515
55°	497	513	556	594	611	445
65°	326	345	397	436	454	324
75°	166	191	245	286	301	178
85°	40	55	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°	1138.4	1138.4	1138.4	1138.4	1138.4
2.5°	1131.0	1134.0	1139.9	1141.4	1141.4
5°	1126.6	1129.5	1135.5	1136.9	1138.4
7.5°	1119.1	1120.6	1128.0	1131.0	1132.5
10°	1107.3	1110.3	1117.7	1122.1	1123.6
12.5°	1091.0	1095.4	1104.3	1110.3	1111.7
15°	1071.7	1077.6	1086.5	1095.4	1096.9
17.5°	1051.0	1056.9	1068.7	1079.1	1082.1
20°	1025.8	1033.2	1046.5	1058.4	1062.8
22.5°	1000.6	1006.5	1022.8	1037.6	1042.1
25°	969.4	978.3	999.1	1012.4	1018.4
27.5°	936.8	947.2	968.0	985.7	991.7
30°	902.7	913.1	935.3	957.6	965.0
32.5°	867.2	879.0	905.7	927.9	935.3
35°	830.1	840.5	868.6	895.3	904.2
37.5°	791.6	800.5	833.1	861.2	870.1
40°	750.1	761.9	796.0	828.6	837.5
42.5°	708.5	721.9	756.0	791.6	800.5
45°	667.0	681.9	717.4	754.5	764.9
47.5°	627.0	638.9	678.9	714.5	729.3
50°	584.0	595.9	634.4	674.5	689.3
52.5°	539.6	555.9	597.4	635.9	653.7
55°	496.6	512.9	555.9	594.4	610.7
57.5°	456.6	469.9	514.4	554.4	570.7
60°	413.6	425.4	472.9	515.8	530.7
62.5°	367.6	385.4	434.3	474.3	492.1
65°	326.1	345.4	397.3	435.8	453.6
67.5°	287.6	305.4	355.8	397.3	416.5
70°	243.1	266.8	318.7	360.2	378.0
72.5°	207.5	228.3	281.6	323.1	342.4
75°	166.0	191.2	244.6	286.1	300.9
77.5°	131.9	157.1	207.5	240.1	247.5
80°	96.4	121.5	169.0	185.3	189.7
82.5°	65.2	88.9	121.5	126.0	127.5
85°	40.0	54.8	71.2	71.2	71.2
87.5°	19.3	22.2	25.2	23.7	23.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)