

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: P312975

Luminaire Tested: **22FCZ2-34HE-UNV-L83050-S-CP125-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: P312975  
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-CP125-W2A-U-3000K  
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**

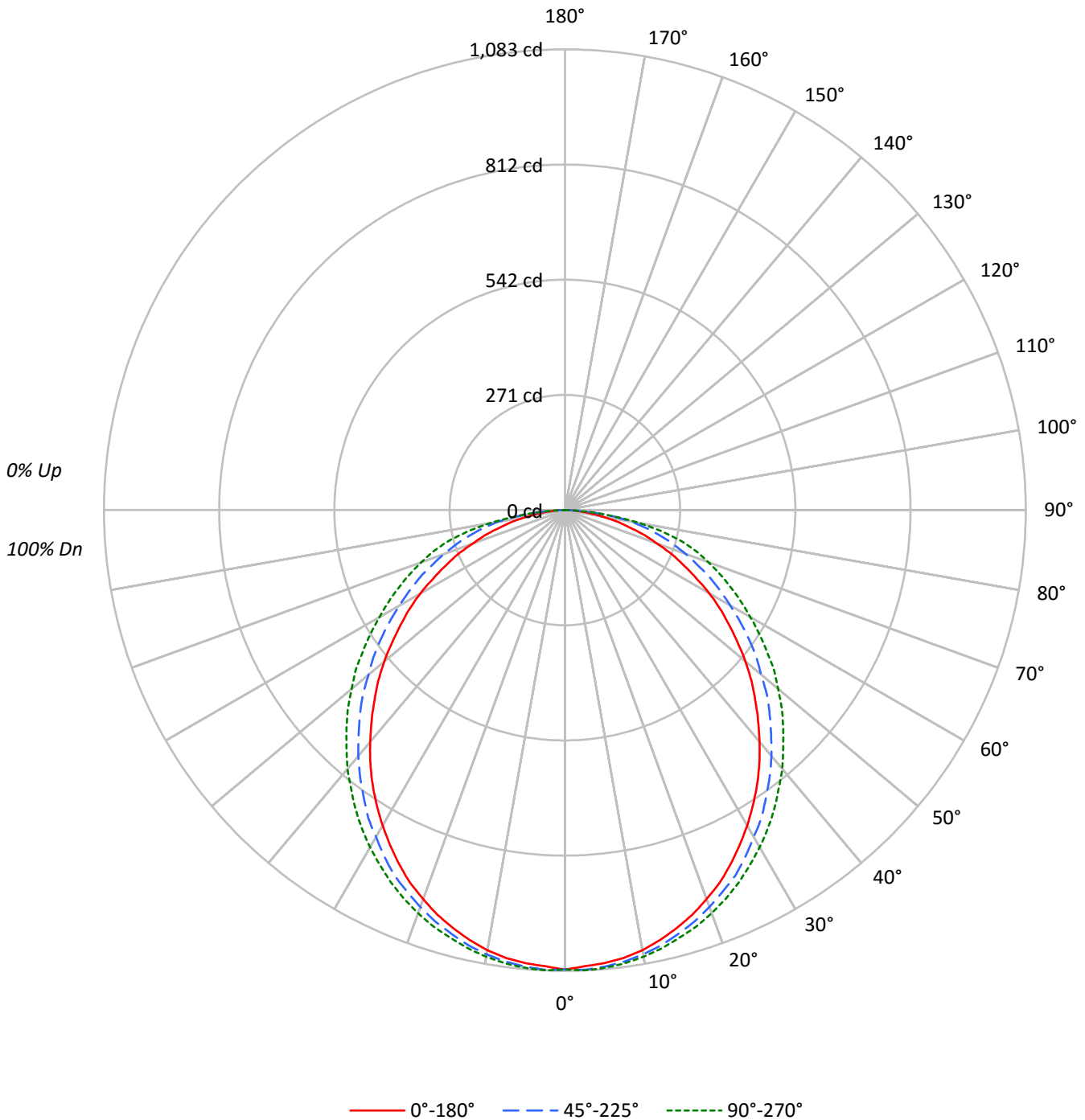
Lumens per Lamp: N/A  
Luminaire Lumens: 3014.0 lumens  
Efficiency: N/A  
Efficacy: 109.6 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 27.5  
Input Voltage (V): NR  
Input Current (A<sub>in</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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83				83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69				69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58				58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49				49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43				43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37				37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33				33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30				30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27				27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24				24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2906	2906	2906
5°	2887	2910	2917
10°	2870	2897	2913
15°	2832	2872	2899
20°	2787	2843	2887
25°	2731	2814	2869
30°	2661	2757	2845
35°	2587	2707	2818
40°	2500	2653	2791
45°	2408	2590	2761
50°	2320	2520	2737
55°	2210	2474	2718
60°	2111	2414	2709
65°	1970	2400	2740
70°	1814	2378	2821
75°	1638	2412	2968
80°	1416	2484	2789
85°	1173	2084	2084



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	102.1	3.4
10°-20°	290.7	9.6
20°-30°	434.9	14.4
30°-40°	515.0	17.1
40°-50°	524.9	17.4
50°-60°	470.4	15.6
60°-70°	368.3	12.2
70°-80°	237.5	7.9
80°-90°	70.2	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°	827.7	27.5
0°-40°	1342.7	44.5
0°-60°	2338.0	77.6
0°-90°	3014.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3014.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1080	1080	1080	1080	1080	
5°	1069	1072	1077	1079	1080	101
15°	1017	1022	1031	1039	1041	287
25°	920	928	948	960	966	423
35°	788	797	824	849	858	492
45°	633	647	681	716	726	489
55°	471	487	527	564	579	422
65°	309	328	377	413	430	307
75°	158	181	232	271	286	169
85°	38	52	68	68	68	45
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1080.0	1080.0	1080.0	1080.0	1080.0
2.5°	1073.0	1075.8	1081.4	1082.8	1082.8
5°	1068.8	1071.6	1077.2	1078.6	1080.0
7.5°	1061.7	1063.1	1070.2	1073.0	1074.4
10°	1050.5	1053.3	1060.3	1064.5	1065.9
12.5°	1035.0	1039.2	1047.7	1053.3	1054.7
15°	1016.7	1022.4	1030.8	1039.2	1040.6
17.5°	997.0	1002.7	1013.9	1023.8	1026.6
20°	973.1	980.2	992.8	1004.1	1008.3
22.5°	949.2	954.9	970.3	984.4	988.6
25°	919.7	928.1	947.8	960.5	966.1
27.5°	888.8	898.6	918.3	935.2	940.8
30°	856.4	866.3	887.4	908.4	915.5
32.5°	822.7	833.9	859.2	880.3	887.4
35°	787.5	797.4	824.1	849.4	857.8
37.5°	750.9	759.4	790.3	817.0	825.5
40°	711.6	722.8	755.2	786.1	794.5
42.5°	672.2	684.9	717.2	750.9	759.4
45°	632.8	646.9	680.6	715.8	725.6
47.5°	594.8	606.1	644.1	677.8	691.9
50°	554.1	565.3	601.9	639.8	653.9
52.5°	511.9	527.3	566.7	603.3	620.2
55°	471.1	486.6	527.3	563.9	579.4
57.5°	433.1	445.8	488.0	525.9	541.4
60°	392.3	403.6	448.6	489.4	503.4
62.5°	348.8	365.6	412.0	450.0	466.9
65°	309.4	327.7	376.9	413.4	430.3
67.5°	272.8	289.7	337.5	376.9	395.2
70°	230.6	253.1	302.3	341.7	358.6
72.5°	196.9	216.6	267.2	306.6	324.8
75°	157.5	181.4	232.0	271.4	285.5
77.5°	125.2	149.1	196.9	227.8	234.8
80°	91.4	115.3	160.3	175.8	180.0
82.5°	61.9	84.4	115.3	119.5	120.9
85°	38.0	52.0	67.5	67.5	67.5
87.5°	18.3	21.1	23.9	22.5	22.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)