

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: P308778

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-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: P308778  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)  
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-CP250-W2A-U-5700K  
Description: 2'X2' TROFFER LED MODULE, RIBBED 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: 2994.0 lumens  
Efficiency: N/A  
Efficacy: 105.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

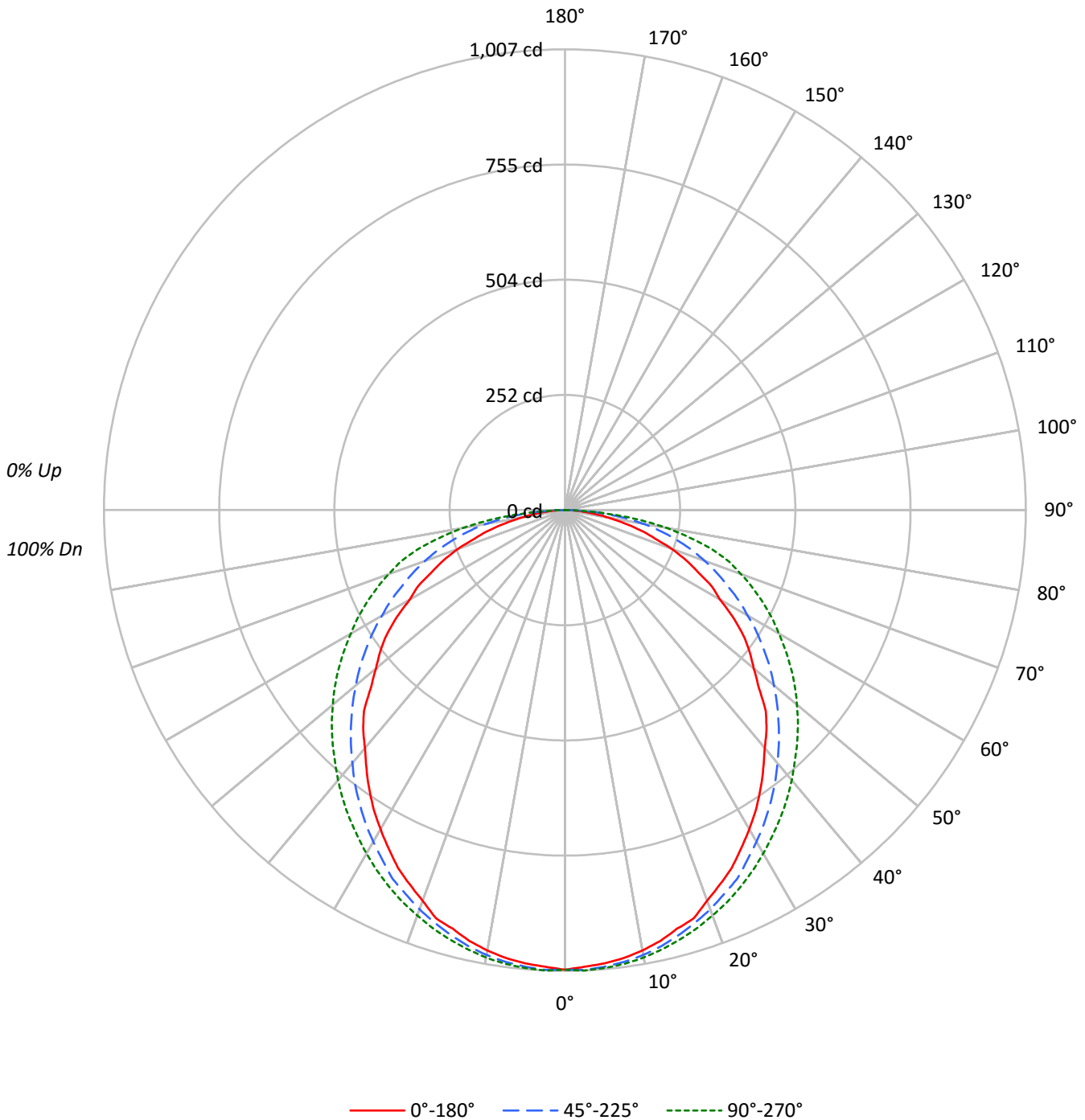
Input Watts (W): 28.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

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

	0°	45°	90°
0°	2703	2703	2703
5°	2686	2706	2713
10°	2670	2698	2713
15°	2639	2679	2707
20°	2602	2659	2700
25°	2561	2642	2697
30°	2502	2600	2694
35°	2448	2570	2697
40°	2386	2537	2708
45°	2361	2514	2732
50°	2256	2496	2771
55°	2232	2487	2830
60°	2105	2483	2907
65°	2044	2500	3039
70°	1961	2559	3224
75°	1788	2637	3472
80°	1533	2732	3508
85°	1238	2609	3007



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.1	3.2
10°-20°	271.2	9.1
20°-30°	408.1	13.6
30°-40°	489.8	16.4
40°-50°	511.9	17.1
50°-60°	477.1	15.9
60°-70°	391.3	13.1
70°-80°	263.7	8.8
80°-90°	85.9	2.9
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°	774.3	25.9
0°-40°	1264.1	42.2
0°-60°	2253.1	75.3
0°-90°	2994.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2994.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1004	1004	1004	1004	1004	
5°	994	997	1002	1003	1004	94
15°	947	953	962	970	972	268
25°	863	868	890	903	908	397
35°	745	755	782	810	821	466
45°	620	625	661	701	718	474
55°	476	484	530	580	603	422
65°	321	335	393	450	477	319
75°	172	191	254	311	334	181
85°	40	57	84	99	97	48
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1004.5	1004.5	1004.5	1004.5	1004.5
2.5°	998.8	1001.6	1005.9	1007.4	1007.4
5°	994.5	997.3	1001.6	1003.1	1004.5
7.5°	987.3	990.2	995.9	998.8	1000.2
10°	977.3	980.2	987.3	991.6	993.0
12.5°	964.4	967.3	975.9	981.6	983.0
15°	947.2	952.9	961.5	970.1	971.6
17.5°	935.7	934.3	945.8	955.8	958.7
20°	908.5	915.7	928.6	940.0	942.9
22.5°	885.6	891.3	908.5	921.4	927.1
25°	862.6	868.4	889.9	902.8	908.5
27.5°	834.0	842.6	862.6	881.3	888.4
30°	805.3	813.9	836.9	858.3	866.9
32.5°	776.7	786.7	811.1	834.0	844.0
35°	745.1	755.2	782.4	809.6	821.1
37.5°	712.2	725.1	753.7	783.8	796.7
40°	679.2	692.1	722.2	756.6	770.9
42.5°	652.0	657.7	692.1	729.4	743.7
45°	620.5	624.8	660.6	700.7	717.9
47.5°	574.6	590.4	629.1	673.5	690.7
50°	538.8	556.0	596.1	643.4	662.0
52.5°	508.7	520.2	564.6	611.9	633.4
55°	475.7	484.3	530.2	580.4	603.3
57.5°	435.6	451.4	497.2	548.8	571.8
60°	391.2	411.3	461.4	517.3	540.2
62.5°	362.5	374.0	428.5	484.3	510.1
65°	321.0	335.3	392.6	450.0	477.2
67.5°	286.6	300.9	359.7	417.0	444.2
70°	249.3	263.7	325.3	382.6	409.8
72.5°	206.3	226.4	290.9	348.2	376.9
75°	172.0	190.6	253.6	311.0	333.9
77.5°	133.3	157.6	216.4	263.7	280.9
80°	98.9	123.2	176.3	210.6	226.4
82.5°	67.3	91.7	131.8	157.6	166.2
85°	40.1	57.3	84.5	98.9	97.4
87.5°	18.6	24.4	34.4	34.4	33.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)