

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: P308776

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-CP250-W2A-U-5000K**

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: P308776  
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-5000K  
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**

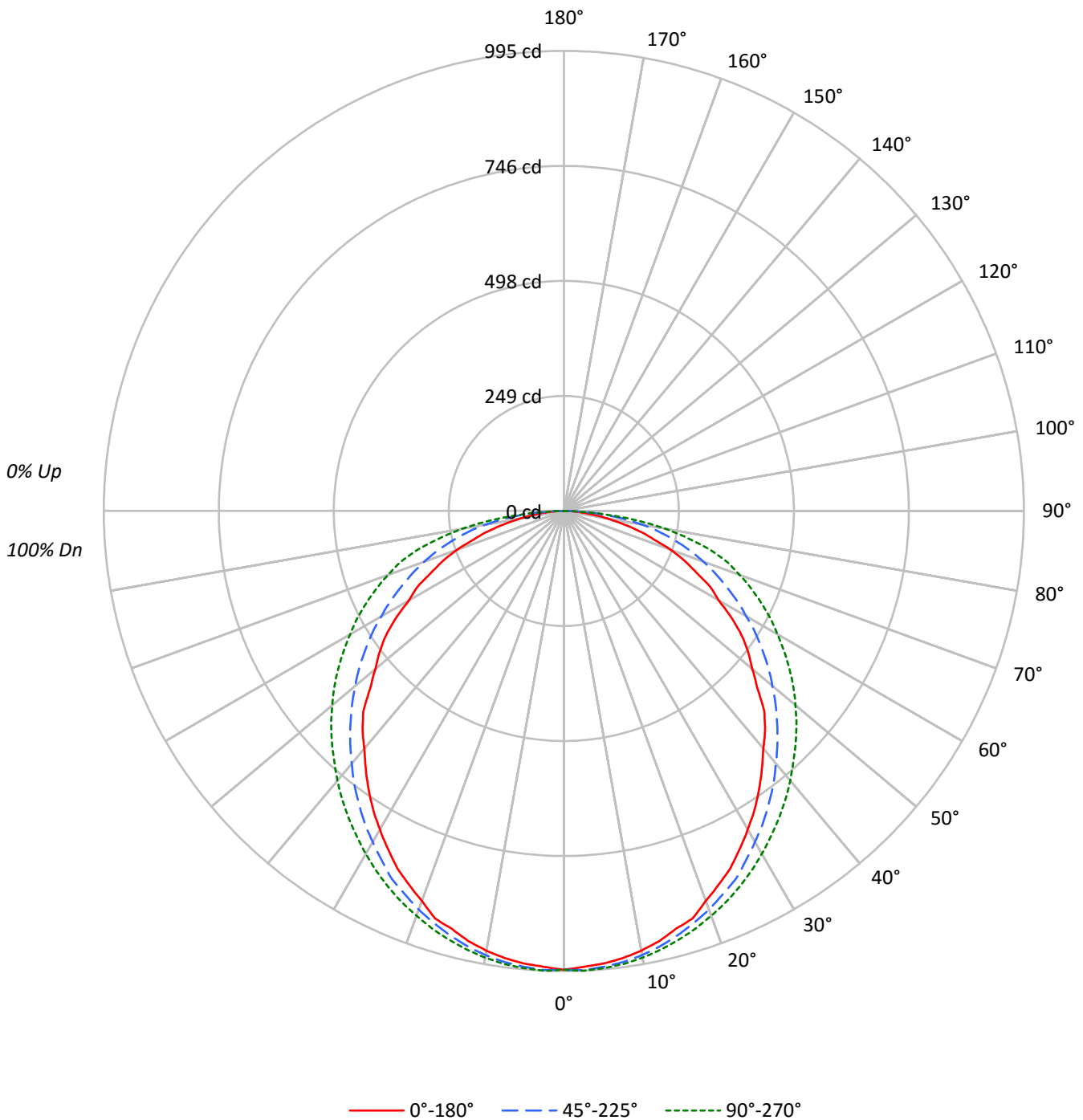
Lumens per Lamp: N/A  
Luminaire Lumens: 2958.0 lumens  
Efficiency: N/A  
Efficacy: 104.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 28.2  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2671	2671	2671
5°	2654	2673	2681
10°	2638	2665	2681
15°	2607	2647	2674
20°	2570	2627	2668
25°	2531	2610	2665
30°	2472	2569	2661
35°	2418	2539	2665
40°	2357	2506	2676
45°	2333	2484	2699
50°	2228	2465	2738
55°	2205	2457	2796
60°	2080	2454	2872
65°	2019	2470	3002
70°	1938	2529	3186
75°	1766	2606	3430
80°	1514	2698	3467
85°	1223	2578	2973



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.9	3.2
10°-20°	267.9	9.1
20°-30°	403.2	13.6
30°-40°	483.9	16.4
40°-50°	505.8	17.1
50°-60°	471.4	15.9
60°-70°	386.6	13.1
70°-80°	260.5	8.8
80°-90°	84.8	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°	765.0	25.9
0°-40°	1248.9	42.2
0°-60°	2226.1	75.3
0°-90°	2958.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2958.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	992	992	992	992	992	
5°	982	985	990	991	992	93
15°	936	942	950	958	960	264
25°	852	858	879	892	898	392
35°	736	746	773	800	811	460
45°	613	617	653	692	709	468
55°	470	478	524	573	596	416
65°	317	331	388	444	471	315
75°	170	188	251	307	330	179
85°	40	57	84	98	96	47
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	992.4	992.4	992.4	992.4	992.4
2.5°	986.8	989.6	993.8	995.3	995.3
5°	982.5	985.4	989.6	991.0	992.4
7.5°	975.4	978.3	983.9	986.8	988.2
10°	965.5	968.4	975.4	979.7	981.1
12.5°	952.8	955.6	964.1	969.8	971.2
15°	935.8	941.5	950.0	958.5	959.9
17.5°	924.5	923.1	934.4	944.3	947.1
20°	897.6	904.7	917.4	928.7	931.6
22.5°	874.9	880.6	897.6	910.3	916.0
25°	852.3	857.9	879.2	891.9	897.6
27.5°	824.0	832.5	852.3	870.7	877.8
30°	795.6	804.1	826.8	848.0	856.5
32.5°	767.3	777.2	801.3	824.0	833.9
35°	736.2	746.1	773.0	799.9	811.2
37.5°	703.6	716.4	744.7	774.4	787.2
40°	671.1	683.8	713.5	747.5	761.7
42.5°	644.2	649.8	683.8	720.6	734.8
45°	613.0	617.3	652.7	692.3	709.3
47.5°	567.7	583.3	621.5	665.4	682.4
50°	532.3	549.3	588.9	635.7	654.1
52.5°	502.6	513.9	557.8	604.5	625.8
55°	470.0	478.5	523.8	573.4	596.0
57.5°	430.4	446.0	491.3	542.2	564.9
60°	386.5	406.3	455.9	511.1	533.7
62.5°	358.2	369.5	423.3	478.5	504.0
65°	317.1	331.3	387.9	444.5	471.4
67.5°	283.1	297.3	355.4	412.0	438.9
70°	246.3	260.5	321.4	378.0	404.9
72.5°	203.9	223.7	287.4	344.0	372.3
75°	169.9	188.3	250.6	307.2	329.9
77.5°	131.7	155.7	213.8	260.5	277.5
80°	97.7	121.8	174.1	208.1	223.7
82.5°	66.5	90.6	130.2	155.7	164.2
85°	39.6	56.6	83.5	97.7	96.3
87.5°	18.4	24.1	34.0	34.0	32.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)