

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: P308737

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-CA08-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: P308737  
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-CA08-W2A-U-3500K  
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.08" 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**

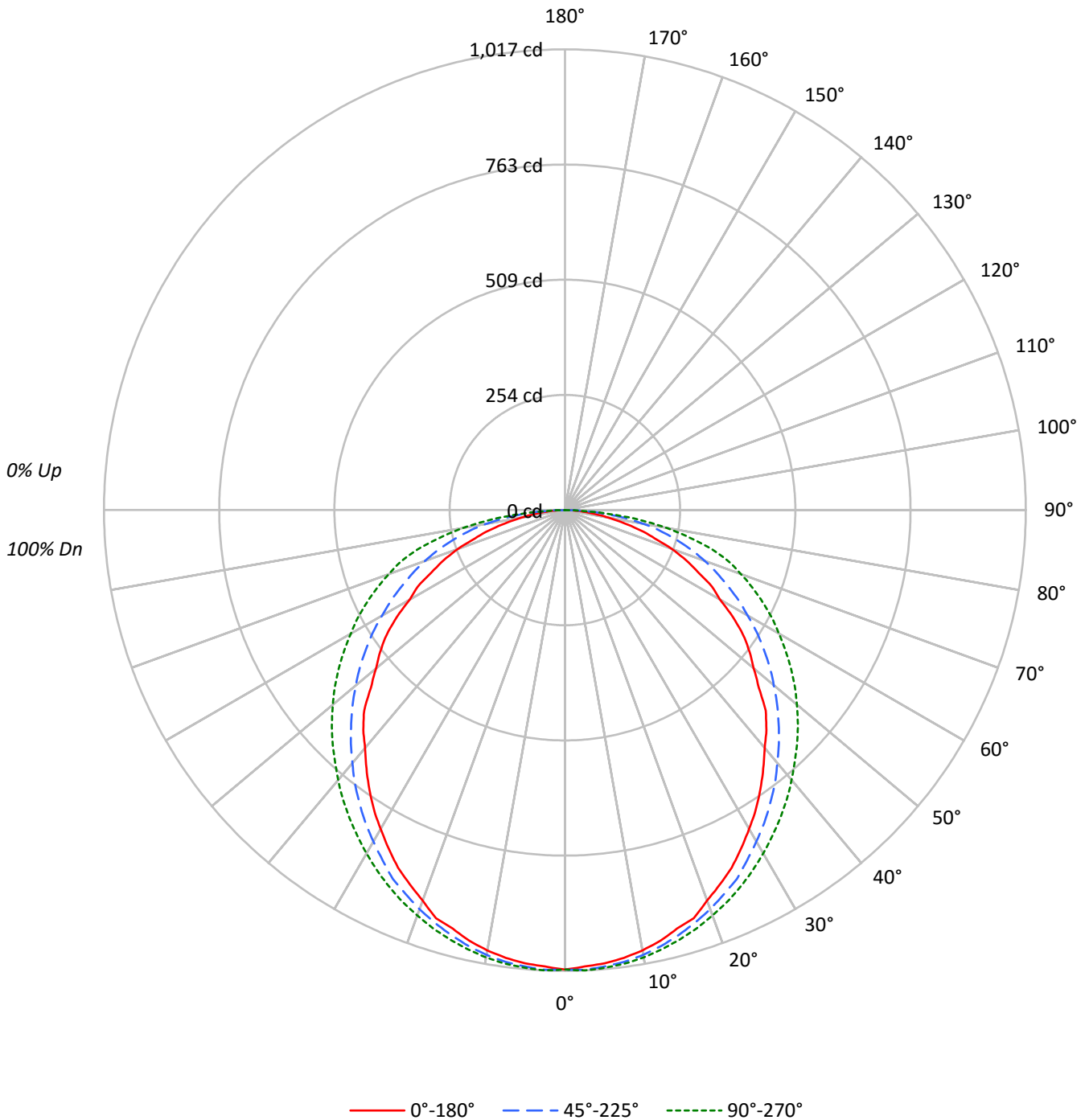
Lumens per Lamp: N/A  
Luminaire Lumens: 3023.0 lumens  
Efficiency: N/A  
Efficacy: 109.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 27.7  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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°	2729	2729	2729
5°	2712	2732	2740
10°	2696	2724	2740
15°	2664	2705	2733
20°	2627	2685	2726
25°	2586	2668	2724
30°	2527	2626	2720
35°	2472	2595	2723
40°	2409	2562	2734
45°	2384	2538	2759
50°	2277	2520	2798
55°	2254	2511	2858
60°	2126	2507	2936
65°	2064	2524	3068
70°	1981	2584	3256
75°	1805	2663	3505
80°	1547	2758	3543
85°	1250	2637	3038



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.0	3.2
10°-20°	273.8	9.1
20°-30°	412.1	13.6
30°-40°	494.5	16.4
40°-50°	516.9	17.1
50°-60°	481.7	15.9
60°-70°	395.1	13.1
70°-80°	266.2	8.8
80°-90°	86.7	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°	781.8	25.9
0°-40°	1276.3	42.2
0°-60°	2275.0	75.3
0°-90°	3023.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3023.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1014	1014	1014	1014	1014	
5°	1004	1007	1011	1013	1014	95
15°	956	962	971	980	981	270
25°	871	877	898	912	917	400
35°	752	762	790	818	829	470
45°	626	631	667	708	725	479
55°	480	489	535	586	609	426
65°	324	339	396	454	482	322
75°	174	192	256	314	337	183
85°	40	58	85	100	98	48
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1014.2	1014.2	1014.2	1014.2	1014.2
2.5°	1008.5	1011.3	1015.7	1017.1	1017.1
5°	1004.1	1007.0	1011.3	1012.8	1014.2
7.5°	996.9	999.8	1005.6	1008.5	1009.9
10°	986.8	989.6	996.9	1001.2	1002.7
12.5°	973.7	976.6	985.3	991.1	992.5
15°	956.4	962.2	970.8	979.5	981.0
17.5°	944.8	943.3	954.9	965.0	967.9
20°	917.3	924.5	937.6	949.1	952.0
22.5°	894.2	899.9	917.3	930.3	936.1
25°	871.0	876.8	898.5	911.5	917.3
27.5°	842.1	850.7	871.0	889.8	897.0
30°	813.1	821.8	845.0	866.7	875.3
32.5°	784.2	794.3	818.9	842.1	852.2
35°	752.4	762.5	790.0	817.5	829.0
37.5°	719.1	732.1	761.0	791.4	804.4
40°	685.8	698.8	729.2	763.9	778.4
42.5°	658.3	664.1	698.8	736.4	750.9
45°	626.5	630.8	667.0	707.5	724.9
47.5°	580.2	596.1	635.2	680.0	697.4
50°	544.0	561.4	601.9	649.6	668.4
52.5°	513.6	525.2	570.1	617.8	639.5
55°	480.4	489.0	535.3	586.0	609.1
57.5°	439.8	455.8	502.1	554.1	577.3
60°	395.0	415.2	465.9	522.3	545.5
62.5°	366.1	377.6	432.6	489.0	515.1
65°	324.1	338.6	396.4	454.3	481.8
67.5°	289.4	303.8	363.2	421.0	448.5
70°	251.8	266.2	328.4	386.3	413.8
72.5°	208.3	228.6	293.7	351.6	380.5
75°	173.6	192.4	256.1	314.0	337.1
77.5°	134.6	159.2	218.5	266.2	283.6
80°	99.8	124.4	178.0	212.7	228.6
82.5°	68.0	92.6	133.1	159.2	167.8
85°	40.5	57.9	85.4	99.8	98.4
87.5°	18.8	24.6	34.7	34.7	33.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)