

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: P308319

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-HRP-CP187-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: P308319  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22FCZ2-44HE-UNV-L82765-HRP-CP187-W2A-U-5700K  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"  
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**

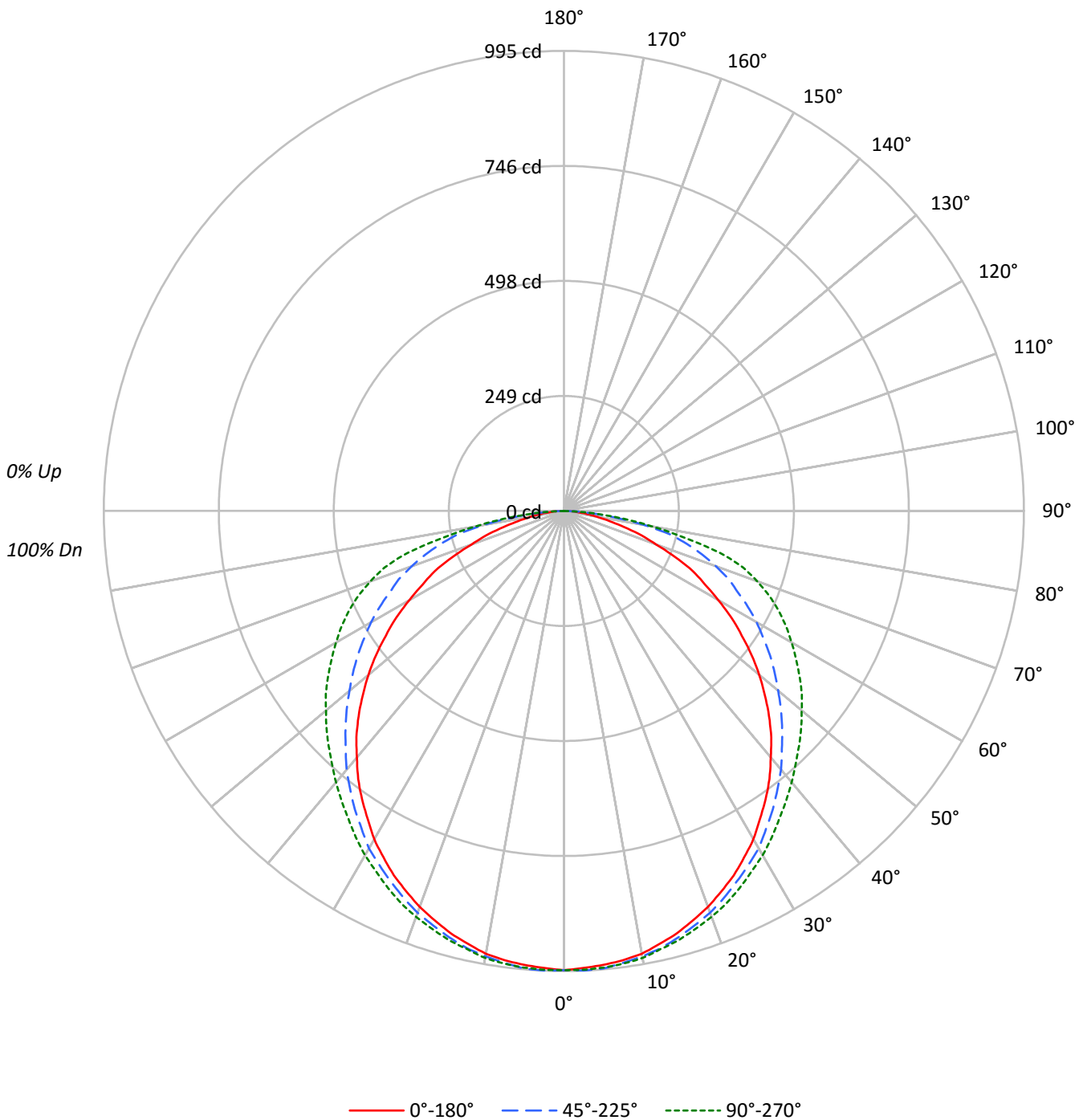
Lumens per Lamp: N/A  
Luminaire Lumens: 3016.0 lumens  
Efficiency: N/A  
Efficacy: 79.0 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 38.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	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	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
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	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

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

	0°	45°	90°
0°	2672	2672	2672
5°	2662	2683	2677
10°	2657	2672	2682
15°	2634	2661	2677
20°	2610	2648	2675
25°	2582	2627	2672
30°	2548	2619	2672
35°	2500	2588	2669
40°	2446	2566	2693
45°	2389	2541	2737
50°	2310	2533	2812
55°	2205	2553	2919
60°	2079	2590	3062
65°	1962	2641	3271
70°	1677	2755	3503
75°	1405	2869	3640
80°	1150	2771	3037
85°	997	2056	2232



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.1	3.1
10°-20°	269.2	8.9
20°-30°	408.0	13.5
30°-40°	492.7	16.3
40°-50°	517.7	17.2
50°-60°	487.1	16.2
60°-70°	406.2	13.5
70°-80°	269.1	8.9
80°-90°	71.7	2.4
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°	771.4	25.6
0°-40°	1264.1	41.9
0°-60°	2269.0	75.2
0°-90°	3016.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3016.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	993	993	993	993	993	
5°	986	987	993	993	991	94
15°	946	949	955	959	961	267
25°	870	875	885	896	900	400
35°	761	769	788	805	812	476
45°	628	637	668	702	719	484
55°	470	491	544	599	622	420
65°	308	335	415	483	514	300
75°	135	188	276	333	350	147
85°	32	50	67	72	72	38
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	993.1	993.1	993.1	993.1	993.1
2.5°	989.3	991.2	995.0	995.0	993.1
5°	985.5	987.4	993.1	993.1	991.2
7.5°	979.8	981.7	985.5	989.3	987.4
10°	972.2	974.1	977.9	981.7	981.7
12.5°	958.9	960.8	968.4	970.3	970.3
15°	945.6	949.4	955.1	958.9	960.8
17.5°	928.4	932.3	939.9	947.5	947.5
20°	911.3	915.1	924.6	932.3	934.2
22.5°	890.4	896.1	905.6	915.1	918.9
25°	869.5	875.2	884.7	896.1	899.9
27.5°	844.7	850.4	863.8	877.1	879.0
30°	820.0	825.7	842.8	854.2	860.0
32.5°	789.6	797.2	814.3	831.4	837.1
35°	761.0	768.6	787.7	804.8	812.4
37.5°	730.6	738.2	759.1	780.0	789.6
40°	696.3	705.8	730.6	753.4	766.7
42.5°	664.0	673.5	698.2	728.7	742.0
45°	627.8	637.4	667.8	702.0	719.2
47.5°	589.8	601.2	637.4	679.2	696.3
50°	551.7	565.1	605.0	652.6	671.6
52.5°	511.8	528.9	574.6	625.9	648.8
55°	469.9	490.9	544.1	599.3	622.1
57.5°	430.0	449.0	511.8	570.8	595.5
60°	386.2	411.0	481.3	542.2	568.9
62.5°	344.4	371.0	449.0	513.7	542.2
65°	308.2	334.9	414.8	483.2	513.7
67.5°	260.7	296.8	386.2	450.9	481.3
70°	213.1	262.6	350.1	416.7	445.2
72.5°	176.9	224.5	313.9	380.5	407.1
75°	135.1	188.4	275.9	332.9	350.1
77.5°	100.8	156.0	235.9	264.5	266.4
80°	74.2	119.9	178.8	188.4	196.0
82.5°	51.4	83.7	116.1	127.5	131.3
85°	32.3	49.5	66.6	72.3	72.3
87.5°	17.1	19.0	22.8	22.8	22.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)