

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: P311982

Luminaire Tested: **14FCZ2-44-UNV-L83050-HRP-CP187-W2A-U-4000K**

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: P311982  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 14FCZ2-44-UNV-L83050-HRP-CP187-W2A-U-4000K  
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"  
POLYCARB SHEET  
Light Source: (168) 4000K 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**

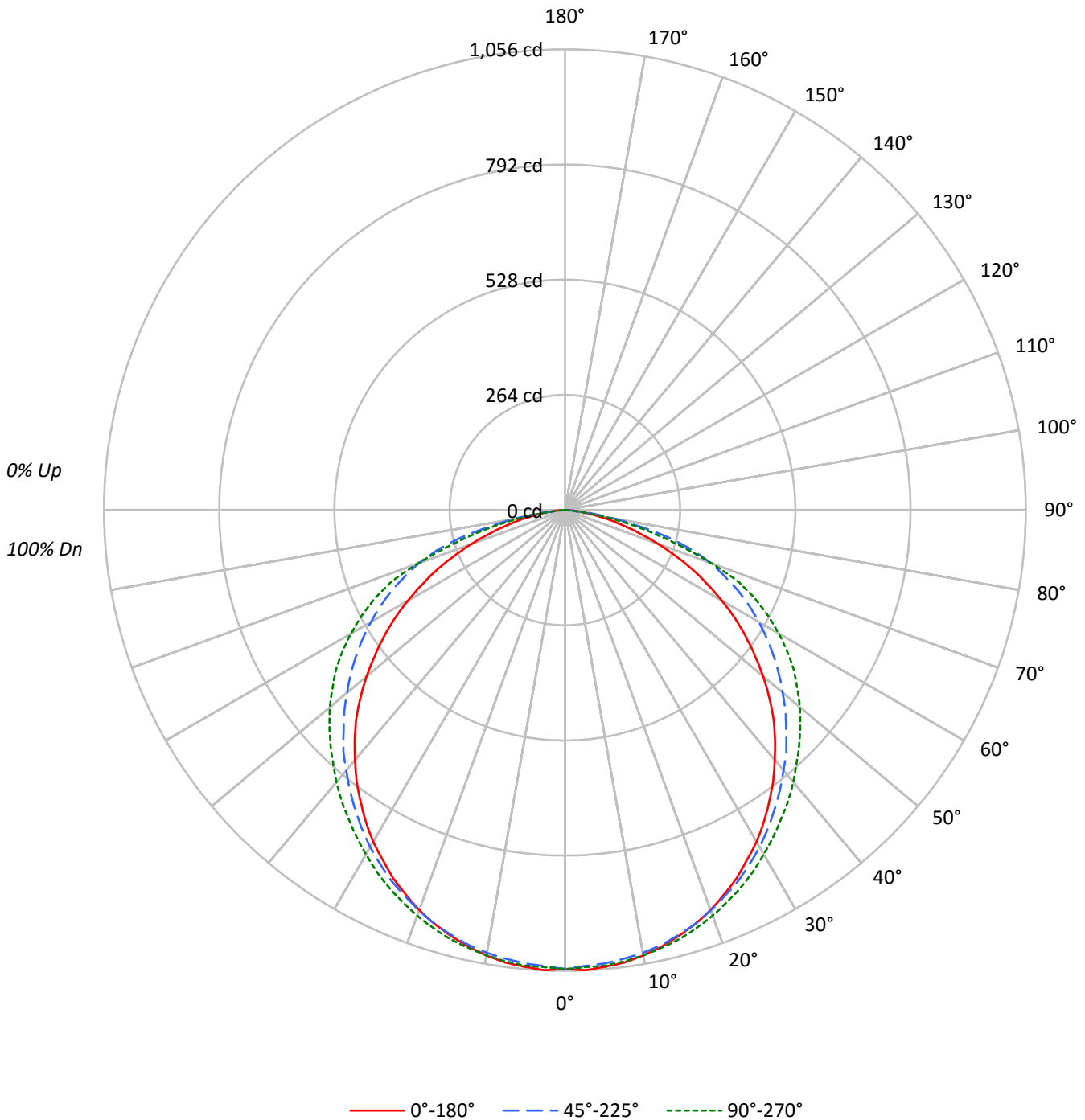
Lumens per Lamp: N/A  
Luminaire Lumens: 3097.0 lumens  
Efficiency: N/A  
Efficacy: 79.0 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 39.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
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



TEST NUMBER: P311982

CATALOG NUMBER: 14FCZ2-44-UNV-L83050-HRP-CP187-W2A-U-4000K

### Luminous Intensity Polar Plot





TEST NUMBER: P311982

CATALOG NUMBER: 14FCZ2-44-UNV-L83050-HRP-CP187-W2A-U-4000K

**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	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

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

	0°	45°	90°
0°	2830	2830	2830
5°	2838	2817	2831
10°	2831	2815	2831
15°	2813	2808	2835
20°	2794	2797	2833
25°	2764	2787	2834
30°	2729	2772	2832
35°	2681	2751	2838
40°	2627	2737	2860
45°	2572	2728	2891
50°	2483	2727	2943
55°	2376	2741	3006
60°	2233	2762	3045
65°	2059	2790	3063
70°	1793	2797	2820
75°	1478	2602	2278
80°	1162	1872	1525
85°	902	722	361



TEST NUMBER: P311982

CATALOG NUMBER: 14FCZ2-44-UNV-L83050-HRP-CP187-W2A-U-4000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.6	3.2
10°-20°	285.7	9.2
20°-30°	433.9	14.0
30°-40°	525.7	17.0
40°-50°	554.0	17.9
50°-60°	517.2	16.7
60°-70°	413.3	13.3
70°-80°	227.4	7.3
80°-90°	40.2	1.3
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°	819.2	26.5
0°-40°	1344.9	43.4
0°-60°	2416.1	78.0
0°-90°	3097.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3097.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1052	1052	1052	1052	1052	
5°	1051	1048	1043	1050	1048	100
15°	1010	1010	1008	1018	1018	285
25°	931	933	939	952	954	429
35°	816	824	838	859	864	511
45°	676	688	717	749	760	520
55°	506	532	584	625	641	452
65°	323	364	438	474	481	318
75°	142	204	250	225	219	153
85°	29	37	23	15	12	36
90°	0	0	0	0	0	



TEST NUMBER: P311982

CATALOG NUMBER: 14FC22-44-UNV-L83050-HRP-CP187-W2A-U-4000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1051.8	1051.8	1051.8	1051.8	1051.8
2.5°	1055.7	1052.7	1045.9	1051.8	1048.8
5°	1050.8	1047.9	1043.0	1049.8	1047.9
7.5°	1045.9	1042.0	1037.1	1044.9	1043.0
10°	1036.2	1033.3	1030.3	1037.1	1036.2
12.5°	1024.5	1023.5	1020.6	1028.4	1027.4
15°	1009.9	1009.9	1007.9	1017.7	1017.7
17.5°	994.3	993.3	994.3	1005.0	1004.0
20°	975.8	975.8	976.8	989.4	989.4
22.5°	953.4	954.4	957.3	972.9	971.9
25°	931.0	932.9	938.8	952.4	954.4
27.5°	903.7	908.6	915.4	932.0	933.9
30°	878.4	881.3	892.0	907.6	911.5
32.5°	848.2	854.1	865.8	883.3	888.2
35°	816.1	823.9	837.5	858.9	863.8
37.5°	783.9	790.8	809.3	831.7	840.4
40°	747.9	759.6	779.1	804.4	814.1
42.5°	712.9	724.5	750.8	777.1	785.9
45°	675.9	688.5	716.8	748.9	759.6
47.5°	634.9	649.6	685.6	719.7	731.4
50°	593.1	611.6	651.5	689.5	703.1
52.5°	549.3	572.6	618.4	658.3	671.0
55°	506.4	531.7	584.3	625.2	640.8
57.5°	462.6	489.8	549.3	596.0	604.8
60°	414.9	448.0	513.2	554.1	565.8
62.5°	368.1	406.1	476.2	515.2	524.9
65°	323.3	364.2	438.2	474.3	481.1
67.5°	274.6	323.3	396.4	429.5	431.4
70°	227.9	284.4	355.5	371.0	358.4
72.5°	182.1	242.5	307.7	295.1	284.4
75°	142.2	203.5	250.3	225.0	219.1
77.5°	105.2	166.5	179.2	165.6	154.8
80°	75.0	131.5	120.8	103.2	98.4
82.5°	51.6	82.8	66.2	51.6	44.8
85°	29.2	37.0	23.4	14.6	11.7
87.5°	12.7	8.8	4.9	3.9	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)