

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: P311885

Luminaire Tested: **14FCZ2-25-UNV-L83050-HRP-CP250-W2A-U-3000K**

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: P311885  
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: 14FCZ2-25-UNV-L83050-HRP-CP250-W2A-U-3000K  
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. 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**

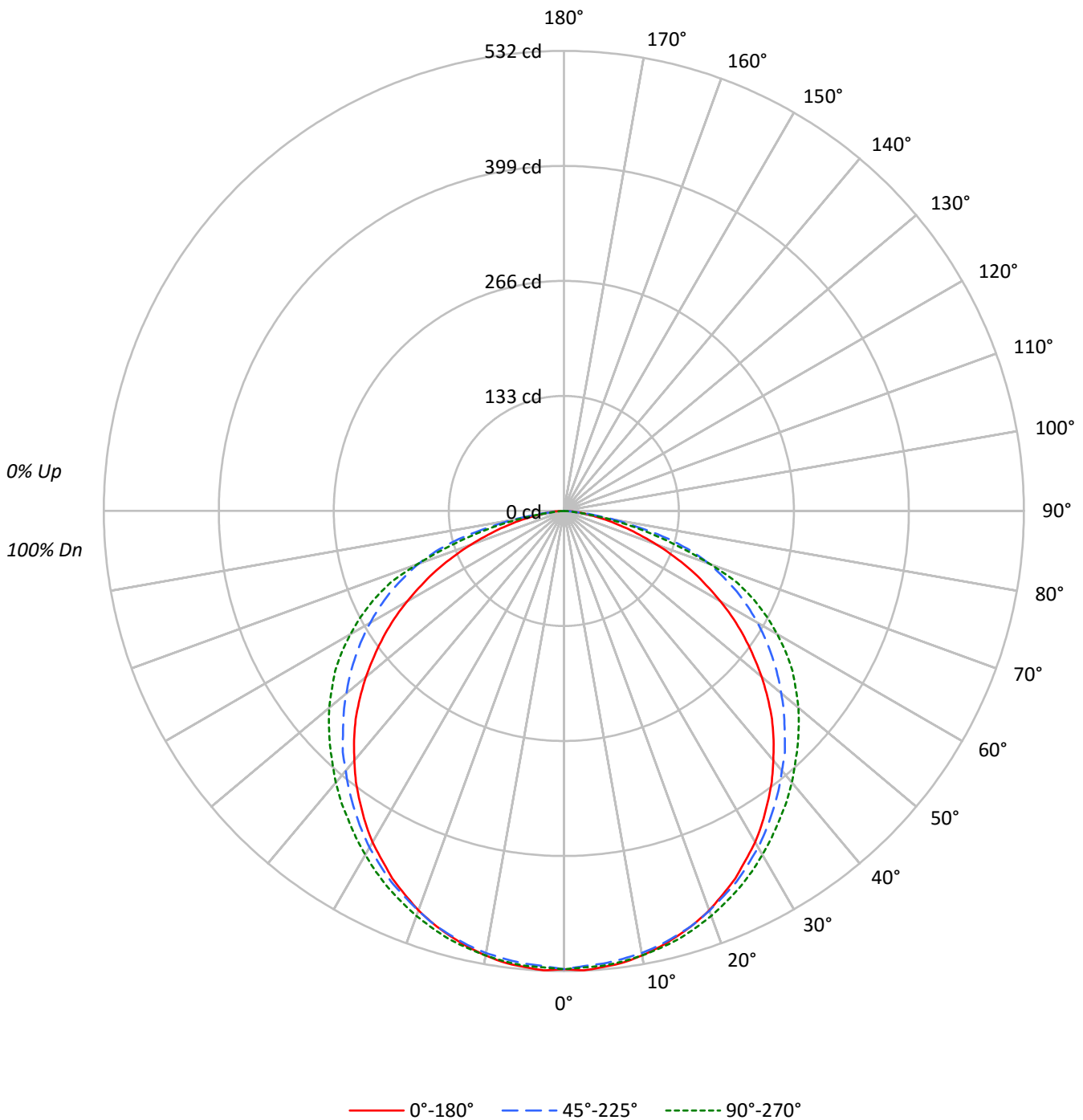
Lumens per Lamp: N/A  
Luminaire Lumens: 1560.0 lumens  
Efficiency: N/A  
Efficacy: 79.6 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.6  
Input Voltage (V): NR  
Input Current (A<sub>in</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



TEST NUMBER: P311885

CATALOG NUMBER: 14FCZ2-25-UNV-L83050-HRP-CP250-W2A-U-3000K

### Luminous Intensity Polar Plot





TEST NUMBER: P311885

CATALOG NUMBER: 14FCZ2-25-UNV-L83050-HRP-CP250-W2A-U-3000K

**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°	1426	1426	1426
5°	1430	1419	1426
10°	1426	1418	1426
15°	1417	1414	1428
20°	1407	1409	1427
25°	1393	1404	1427
30°	1375	1396	1427
35°	1350	1386	1429
40°	1323	1378	1441
45°	1295	1374	1456
50°	1250	1374	1483
55°	1197	1381	1514
60°	1125	1391	1534
65°	1037	1405	1543
70°	903	1408	1420
75°	744	1311	1148
80°	586	942	767
85°	454	364	182



TEST NUMBER: P311885

CATALOG NUMBER: 14FCZ2-25-UNV-L83050-HRP-CP250-W2A-U-3000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.2	3.2
10°-20°	143.9	9.2
20°-30°	218.6	14.0
30°-40°	264.8	17.0
40°-50°	279.1	17.9
50°-60°	260.5	16.7
60°-70°	208.2	13.3
70°-80°	114.5	7.3
80°-90°	20.2	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°	412.6	26.5
0°-40°	677.4	43.4
0°-60°	1217.0	78.0
0°-90°	1560.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1560.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	530	530	530	530	530	
5°	529	528	525	529	528	50
15°	509	509	508	513	513	144
25°	469	470	473	480	481	216
35°	411	415	422	433	435	257
45°	340	347	361	377	383	262
55°	255	268	294	315	323	228
65°	163	184	221	239	242	160
75°	72	102	126	113	110	77
85°	15	19	12	7	6	18
90°	0	0	0	0	0	



TEST NUMBER: P311885

CATALOG NUMBER: 14FC22-25-UNV-L83050-HRP-CP250-W2A-U-3000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	529.8	529.8	529.8	529.8	529.8
2.5°	531.7	530.3	526.8	529.8	528.3
5°	529.3	527.8	525.4	528.8	527.8
7.5°	526.8	524.9	522.4	526.4	525.4
10°	521.9	520.5	519.0	522.4	521.9
12.5°	516.0	515.6	514.1	518.0	517.5
15°	508.7	508.7	507.7	512.6	512.6
17.5°	500.8	500.4	500.8	506.2	505.7
20°	491.5	491.5	492.0	498.4	498.4
22.5°	480.2	480.7	482.2	490.1	489.6
25°	469.0	469.9	472.9	479.7	480.7
27.5°	455.2	457.7	461.1	469.4	470.4
30°	442.5	443.9	449.3	457.2	459.1
32.5°	427.3	430.2	436.1	444.9	447.4
35°	411.1	415.0	421.9	432.7	435.1
37.5°	394.9	398.3	407.6	418.9	423.3
40°	376.7	382.6	392.4	405.2	410.1
42.5°	359.1	365.0	378.2	391.5	395.9
45°	340.4	346.8	361.0	377.2	382.6
47.5°	319.8	327.2	345.3	362.5	368.4
50°	298.7	308.1	328.2	347.3	354.2
52.5°	276.7	288.4	311.5	331.6	338.0
55°	255.1	267.8	294.3	314.9	322.8
57.5°	233.0	246.7	276.7	300.2	304.6
60°	209.0	225.6	258.5	279.1	285.0
62.5°	185.4	204.6	239.9	259.5	264.4
65°	162.9	183.5	220.7	238.9	242.3
67.5°	138.3	162.9	199.7	216.3	217.3
70°	114.8	143.2	179.0	186.9	180.5
72.5°	91.7	122.1	155.0	148.6	143.2
75°	71.6	102.5	126.1	113.3	110.4
77.5°	53.0	83.9	90.3	83.4	78.0
80°	37.8	66.2	60.8	52.0	49.5
82.5°	26.0	41.7	33.4	26.0	22.6
85°	14.7	18.6	11.8	7.4	5.9
87.5°	6.4	4.4	2.5	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)