

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: P312298

Luminaire Tested: **14FCZ2-20-UNV-L83050-S-CA125-W2A-U-4500K**

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: P312298  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 14FCZ2-20-UNV-L83050-S-CA125-W2A-U-4500K  
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS,0.125" ACRYLIC SHEET  
Light Source: (168) 4500K 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**

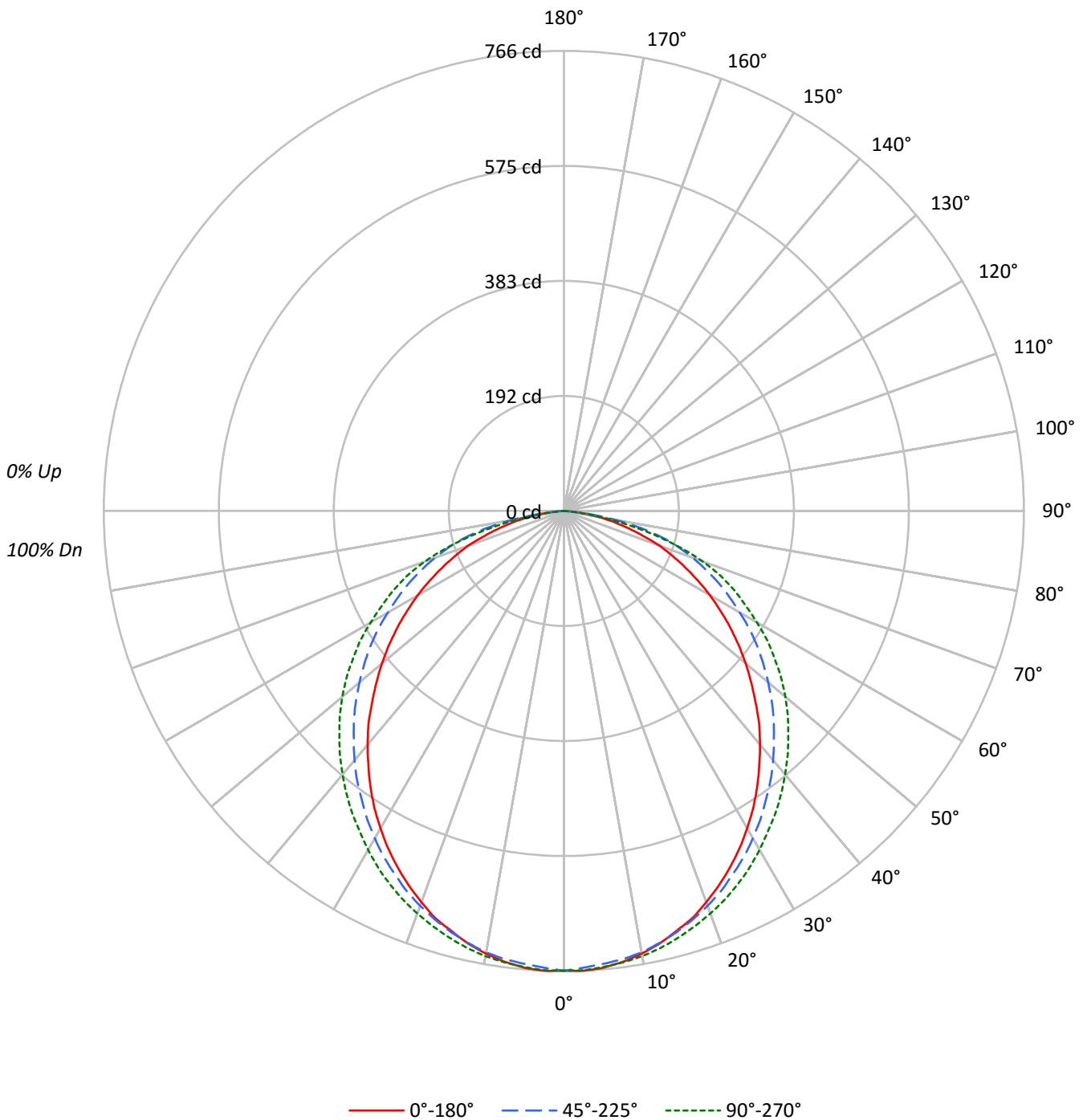
Lumens per Lamp: N/A  
Luminaire Lumens: 2144.0 lumens  
Efficiency: N/A  
Efficacy: 123.9 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
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: P312298

CATALOG NUMBER: 14FCZ2-20-UNV-L83050-S-CA125-W2A-U-4500K

### Luminous Intensity Polar Plot





TEST NUMBER: P312298

CATALOG NUMBER: 14FCZ2-20-UNV-L83050-S-CA125-W2A-U-4500K

**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	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	2060	2060	2060
5°	2062	2045	2059
10°	2045	2039	2056
15°	2017	2023	2049
20°	1985	2003	2043
25°	1944	1979	2036
30°	1896	1955	2025
35°	1844	1928	2018
40°	1785	1904	2013
45°	1719	1881	2011
50°	1655	1860	2016
55°	1586	1845	2010
60°	1510	1819	1997
65°	1421	1814	1997
70°	1338	1798	1940
75°	1160	1757	1658
80°	939	1416	1103
85°	624	491	327



TEST NUMBER: P312298

CATALOG NUMBER: 14FCZ2-20-UNV-L83050-S-CA125-W2A-U-4500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.3	3.4
10°-20°	205.7	9.6
20°-30°	308.5	14.4
30°-40°	368.0	17.2
40°-50°	380.4	17.7
50°-60°	347.3	16.2
60°-70°	273.3	12.7
70°-80°	159.1	7.4
80°-90°	29.3	1.4
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°	586.4	27.4
0°-40°	954.4	44.5
0°-60°	1682.2	78.5
0°-90°	2144.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2144.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	765	765	765	765	765	
5°	763	761	757	763	762	72
15°	724	725	726	736	736	204
25°	655	658	666	682	686	301
35°	561	569	587	609	614	351
45°	452	467	494	522	528	349
55°	338	356	393	422	428	302
65°	223	247	285	307	314	222
75°	112	138	169	166	160	119
85°	20	29	16	13	11	26
90°	0	0	0	0	0	



TEST NUMBER: P312298

CATALOG NUMBER: 14FCZ2-20-UNV-L83050-S-CA125-W2A-U-4500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	765.4	765.4	765.4	765.4	765.4
2.5°	766.4	764.3	761.1	766.4	765.4
5°	763.2	761.1	756.9	763.2	762.2
7.5°	756.9	754.7	752.6	759.0	757.9
10°	748.4	747.3	746.2	753.7	752.6
12.5°	737.7	737.7	736.7	745.2	745.2
15°	723.9	725.0	726.0	735.6	735.6
17.5°	711.2	710.1	713.3	723.9	725.0
20°	693.1	695.2	699.5	712.2	713.3
22.5°	675.0	677.1	684.6	697.3	700.5
25°	654.8	658.0	666.5	682.5	685.6
27.5°	633.6	637.8	649.5	666.5	669.7
30°	610.2	616.6	629.3	648.4	651.6
32.5°	586.8	593.2	609.1	628.2	632.5
35°	561.3	568.7	586.8	609.1	614.4
37.5°	534.7	544.3	565.5	587.8	594.2
40°	508.1	518.8	542.1	565.5	573.0
42.5°	481.5	492.2	517.7	544.3	551.7
45°	451.8	466.7	494.3	521.9	528.3
47.5°	423.1	439.0	469.9	497.5	506.0
50°	395.4	411.4	444.3	473.0	481.5
52.5°	366.7	383.7	418.8	448.6	456.0
55°	338.0	356.1	393.3	422.0	428.4
57.5°	309.3	328.5	366.7	394.4	401.8
60°	280.6	300.8	338.0	365.7	371.0
62.5°	251.9	273.2	311.5	335.9	341.2
65°	223.2	246.6	284.9	307.2	313.6
67.5°	195.6	219.0	256.2	277.4	282.8
70°	170.1	191.3	228.5	244.5	246.6
72.5°	138.2	164.8	200.9	209.4	204.1
75°	111.6	138.2	169.0	165.8	159.5
77.5°	85.0	111.6	131.8	121.2	112.7
80°	60.6	87.2	91.4	75.5	71.2
82.5°	39.3	60.6	51.0	39.3	31.9
85°	20.2	28.7	15.9	12.8	10.6
87.5°	6.4	4.3	2.1	2.1	1.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)