

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: P312335

Luminaire Tested: **14FCZ2-25-UNV-L83050-S-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: P312335
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: 14FCZ2-25-UNV-L83050-S-CP250-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH 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: 2078.0 lumens
Efficiency: N/A
Efficacy: 106.0 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

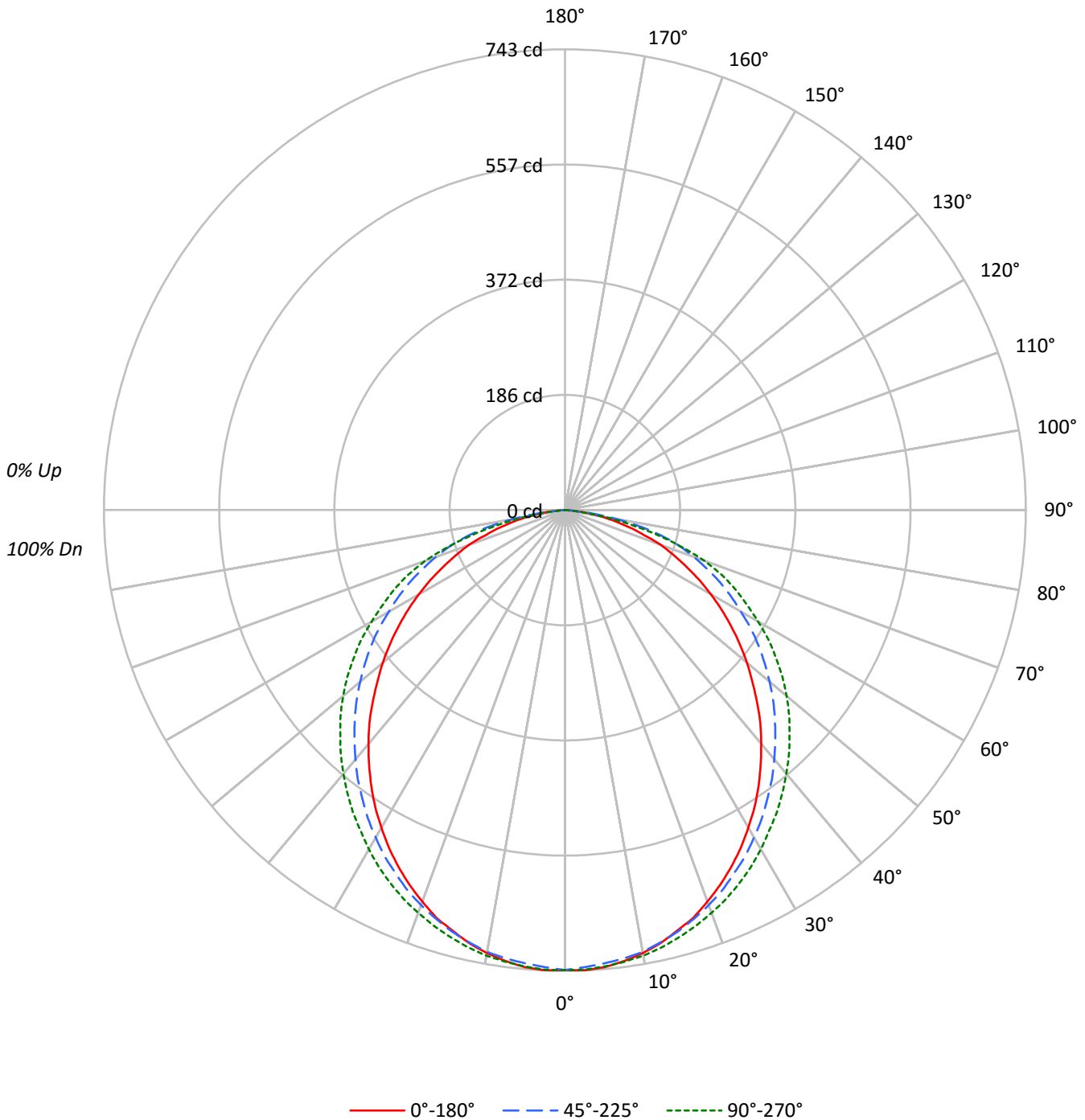
Input Watts (W): 19.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P312335

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

Luminous Intensity Polar Plot





TEST NUMBER: P312335

CATALOG NUMBER: 14FCZ2-25-UNV-L83050-S-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	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°	1996	1996	1996
5°	1998	1982	1995
10°	1982	1976	1993
15°	1955	1960	1986
20°	1924	1941	1980
25°	1885	1918	1973
30°	1838	1895	1963
35°	1787	1868	1956
40°	1730	1846	1951
45°	1666	1823	1949
50°	1605	1803	1954
55°	1537	1788	1948
60°	1464	1763	1935
65°	1378	1758	1935
70°	1297	1743	1880
75°	1125	1703	1606
80°	910	1373	1069
85°	605	479	318



TEST NUMBER: P312335

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.0	3.4
10°-20°	199.3	9.6
20°-30°	299.0	14.4
30°-40°	356.7	17.2
40°-50°	368.7	17.7
50°-60°	336.6	16.2
60°-70°	264.9	12.7
70°-80°	154.2	7.4
80°-90°	28.4	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°	568.4	27.4
0°-40°	925.1	44.5
0°-60°	1630.4	78.5
0°-90°	2078.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2078.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	742	742	742	742	742	
5°	740	738	734	740	739	70
15°	702	703	704	713	713	198
25°	635	638	646	661	664	292
35°	544	551	569	590	596	340
45°	438	452	479	506	512	338
55°	328	345	381	409	415	293
65°	216	239	276	298	304	215
75°	108	134	164	161	154	115
85°	20	28	16	12	10	25
90°	0	0	0	0	0	



TEST NUMBER: P312335

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	741.8	741.8	741.8	741.8	741.8
2.5°	742.8	740.8	737.7	742.8	741.8
5°	739.8	737.7	733.6	739.8	738.7
7.5°	733.6	731.5	729.4	735.6	734.6
10°	725.3	724.3	723.3	730.5	729.4
12.5°	715.0	715.0	714.0	722.2	722.2
15°	701.6	702.7	703.7	713.0	713.0
17.5°	689.3	688.2	691.3	701.6	702.7
20°	671.8	673.8	677.9	690.3	691.3
22.5°	654.2	656.3	663.5	675.9	679.0
25°	634.7	637.8	646.0	661.4	664.5
27.5°	614.1	618.2	629.5	646.0	649.1
30°	591.4	597.6	609.9	628.5	631.6
32.5°	568.7	574.9	590.4	608.9	613.0
35°	544.0	551.2	568.7	590.4	595.5
37.5°	518.2	527.5	548.1	569.8	575.9
40°	492.5	502.8	525.4	548.1	555.3
42.5°	466.7	477.0	501.8	527.5	534.7
45°	437.9	452.3	479.1	505.9	512.1
47.5°	410.1	425.5	455.4	482.2	490.4
50°	383.3	398.7	430.7	458.5	466.7
52.5°	355.5	371.9	405.9	434.8	442.0
55°	327.6	345.1	381.2	409.0	415.2
57.5°	299.8	318.4	355.5	382.2	389.5
60°	272.0	291.6	327.6	354.4	359.6
62.5°	244.2	264.8	301.9	325.6	330.7
65°	216.4	239.0	276.1	297.8	303.9
67.5°	189.6	212.2	248.3	268.9	274.1
70°	164.8	185.5	221.5	237.0	239.0
72.5°	133.9	159.7	194.7	203.0	197.8
75°	108.2	133.9	163.8	160.7	154.5
77.5°	82.4	108.2	127.8	117.5	109.2
80°	58.7	84.5	88.6	73.2	69.0
82.5°	38.1	58.7	49.5	38.1	30.9
85°	19.6	27.8	15.5	12.4	10.3
87.5°	6.2	4.1	2.1	2.1	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)