

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: P312145

Luminaire Tested: **14FCZ2-20-UNV-L83050-CA125-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: P312145
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
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-CA125-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.125" ACRYLIC 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

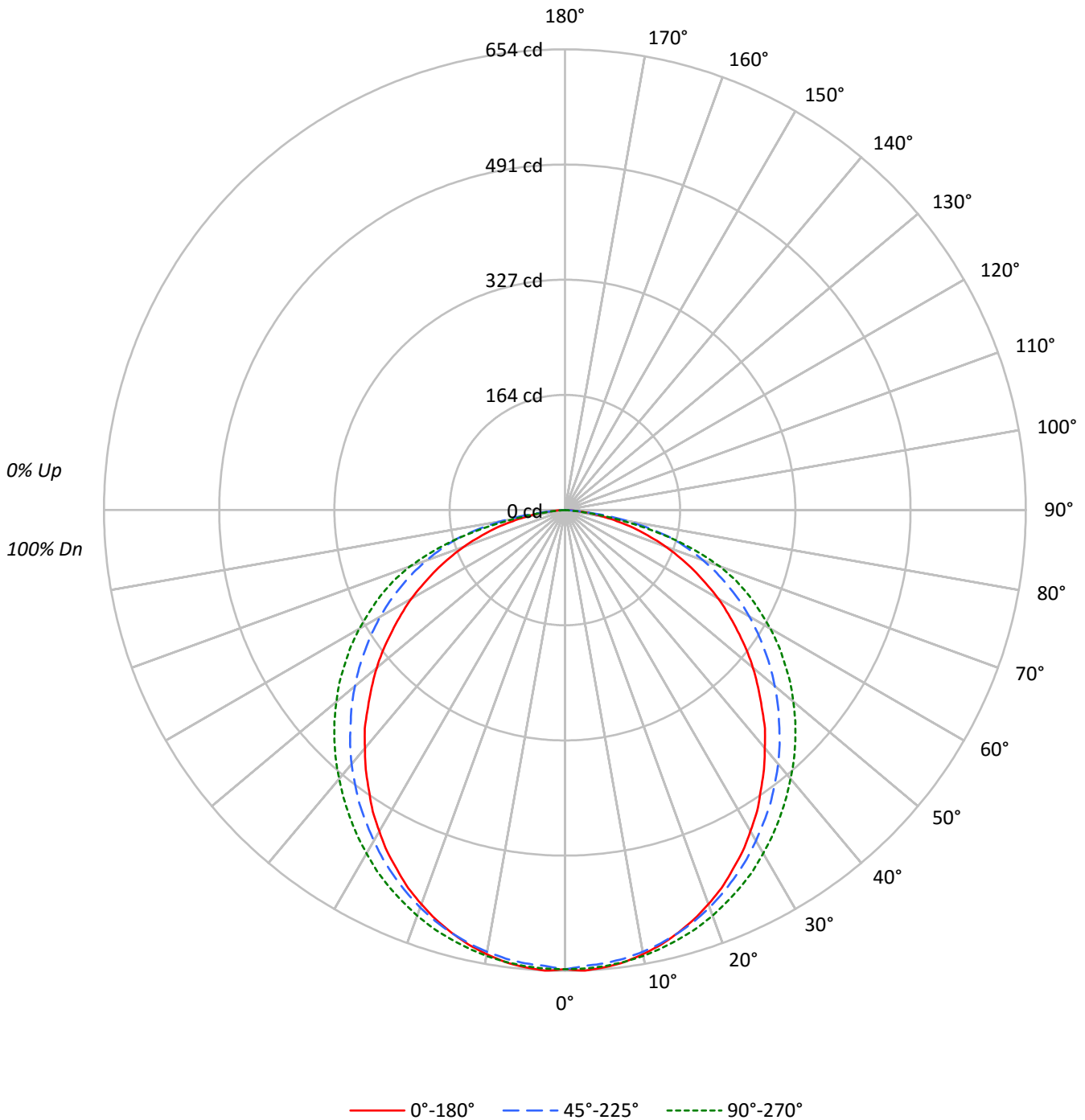
Lumens per Lamp: N/A
Luminaire Lumens: 1892.0 lumens
Efficiency: N/A
Efficacy: 114.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 16.5
Input Voltage (V): NR
Input Current (A_{in}): 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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CATALOG NUMBER: 14FC22-20-UNV-L83050-CA125-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	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	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	39	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1754	1754	1754
5°	1760	1745	1755
10°	1749	1740	1756
15°	1730	1731	1755
20°	1705	1719	1754
25°	1672	1702	1752
30°	1636	1684	1749
35°	1592	1670	1748
40°	1550	1654	1750
45°	1503	1636	1760
50°	1459	1629	1771
55°	1403	1623	1787
60°	1353	1626	1812
65°	1284	1631	1840
70°	1205	1643	1839
75°	1092	1658	1663
80°	896	1432	1184
85°	664	676	275



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.7	3.3
10°-20°	176.2	9.3
20°-30°	265.4	14.0
30°-40°	318.5	16.8
40°-50°	332.0	17.5
50°-60°	307.3	16.2
60°-70°	248.3	13.1
70°-80°	151.4	8.0
80°-90°	31.3	1.7
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°	503.3	26.6
0°-40°	821.8	43.4
0°-60°	1461.0	77.2
0°-90°	1892.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1892.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	652	652	652	652	652	
5°	651	650	646	650	650	62
15°	621	621	621	630	630	175
25°	563	567	573	588	590	260
35°	485	492	508	527	532	304
45°	395	407	430	454	462	305
55°	299	315	346	373	381	268
65°	202	222	256	282	289	199
75°	105	128	160	162	160	110
85°	22	32	22	12	9	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	651.8	651.8	651.8	651.8	651.8
2.5°	654.3	652.2	647.6	652.2	651.4
5°	651.4	649.7	645.9	650.5	649.7
7.5°	647.2	645.5	642.1	647.6	646.7
10°	640.0	639.1	636.6	642.9	642.5
12.5°	631.6	631.1	629.9	637.0	636.6
15°	621.0	621.4	621.4	629.9	629.9
17.5°	609.2	610.0	611.7	621.0	622.3
20°	595.3	597.0	600.3	610.9	612.6
22.5°	580.9	582.2	587.3	599.9	601.6
25°	563.2	566.6	573.3	587.7	590.2
27.5°	546.3	549.3	558.6	573.3	577.5
30°	526.5	531.1	542.1	558.1	562.8
32.5°	507.5	512.6	525.2	543.8	548.0
35°	484.7	492.3	508.4	526.9	532.0
37.5°	464.1	471.2	489.4	509.6	515.5
40°	441.3	450.1	470.8	492.3	498.2
42.5°	420.2	428.6	451.0	472.9	480.9
45°	394.9	406.7	429.9	453.9	462.4
47.5°	371.7	383.5	410.1	435.8	443.4
50°	348.5	361.1	389.0	415.5	423.1
52.5°	324.4	337.9	367.9	394.5	403.3
55°	299.1	314.7	345.9	372.9	381.0
57.5°	275.1	291.1	324.4	351.8	359.9
60°	251.4	267.9	302.1	328.2	336.7
62.5°	225.3	244.7	280.1	305.9	312.2
65°	201.7	221.5	256.1	281.8	289.0
67.5°	176.8	198.3	232.9	256.5	263.3
70°	153.1	175.5	208.8	230.8	233.7
72.5°	127.8	150.6	184.4	198.3	198.3
75°	105.0	128.3	159.5	162.0	159.9
77.5°	80.2	105.9	126.1	121.1	116.0
80°	57.8	83.1	92.4	83.1	76.4
82.5°	38.8	60.3	55.7	44.3	39.2
85°	21.5	32.1	21.9	12.2	8.9
87.5°	8.0	7.2	2.1	2.1	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)