

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: P312146

Luminaire Tested: **14FCZ2-20-UNV-L83050-CA125-W2A-U-3500K**

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: P312146
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-3500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 3500K 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: 2002.0 lumens
Efficiency: N/A
Efficacy: 121.3 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

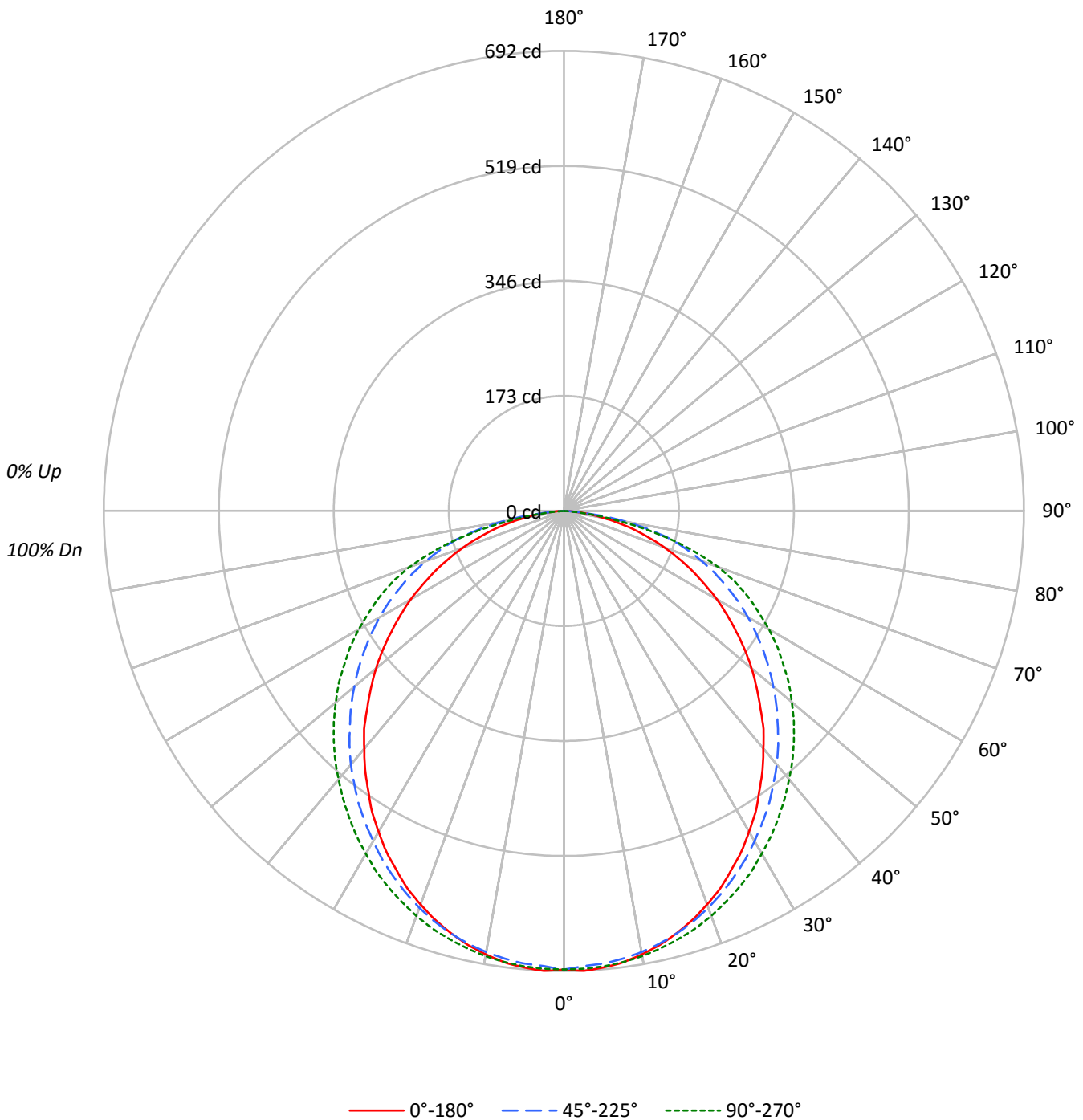
Input Watts (W): 16.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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°	1856	1856	1856
5°	1862	1846	1857
10°	1850	1841	1858
15°	1831	1832	1857
20°	1804	1819	1856
25°	1770	1801	1854
30°	1731	1782	1850
35°	1685	1767	1849
40°	1640	1750	1852
45°	1590	1731	1862
50°	1544	1723	1874
55°	1485	1718	1891
60°	1432	1720	1917
65°	1359	1726	1947
70°	1275	1739	1946
75°	1156	1754	1759
80°	948	1516	1252
85°	704	716	290



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.3	3.3
10°-20°	186.4	9.3
20°-30°	280.8	14.0
30°-40°	337.0	16.8
40°-50°	351.3	17.5
50°-60°	325.2	16.2
60°-70°	262.7	13.1
70°-80°	160.2	8.0
80°-90°	33.1	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°	532.5	26.6
0°-40°	869.5	43.4
0°-60°	1546.0	77.2
0°-90°	2002.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2002.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	690	690	690	690	690	
5°	689	688	683	688	688	65
15°	657	658	658	666	666	185
25°	596	600	607	622	624	275
35°	513	521	538	558	563	321
45°	418	430	455	480	489	323
55°	316	333	366	395	403	284
65°	213	234	271	298	306	211
75°	111	136	169	171	169	117
85°	23	34	23	13	9	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	689.7	689.7	689.7	689.7	689.7
2.5°	692.4	690.1	685.2	690.1	689.2
5°	689.2	687.5	683.4	688.4	687.5
7.5°	684.8	683.0	679.4	685.2	684.3
10°	677.2	676.3	673.6	680.3	679.9
12.5°	668.3	667.8	666.5	674.1	673.6
15°	657.1	657.6	657.6	666.5	666.5
17.5°	644.6	645.5	647.3	657.1	658.4
20°	629.9	631.7	635.2	646.4	648.2
22.5°	614.7	616.0	621.4	634.8	636.6
25°	596.0	599.5	606.7	621.8	624.5
27.5°	578.1	581.2	591.0	606.7	611.1
30°	557.1	562.0	573.6	590.6	595.5
32.5°	537.0	542.4	555.8	575.4	579.9
35°	512.9	521.0	537.9	557.6	562.9
37.5°	491.0	498.6	517.8	539.3	545.5
40°	466.9	476.3	498.2	521.0	527.2
42.5°	444.6	453.5	477.2	500.4	508.9
45°	417.8	430.3	454.9	480.3	489.3
47.5°	393.3	405.8	433.9	461.1	469.2
50°	368.7	382.1	411.6	439.7	447.7
52.5°	343.3	357.6	389.3	417.4	426.8
55°	316.5	333.0	366.1	394.6	403.1
57.5°	291.1	308.0	343.3	372.3	380.8
60°	266.1	283.5	319.6	347.3	356.2
62.5°	238.4	258.9	296.4	323.6	330.3
65°	213.4	234.4	271.0	298.2	305.8
67.5°	187.0	209.8	246.4	271.4	278.6
70°	162.0	185.7	221.0	244.2	247.3
72.5°	135.3	159.4	195.1	209.8	209.8
75°	111.2	135.7	168.7	171.4	169.2
77.5°	84.8	112.0	133.5	128.1	122.8
80°	61.2	87.9	97.8	87.9	80.8
82.5°	41.1	63.8	58.9	46.9	41.5
85°	22.8	33.9	23.2	12.9	9.4
87.5°	8.5	7.6	2.2	2.2	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)