

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: P312147

Luminaire Tested: **14FCZ2-20-UNV-L83050-CA125-W2A-U-4000K**

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: P312147
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-4000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 4000K 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

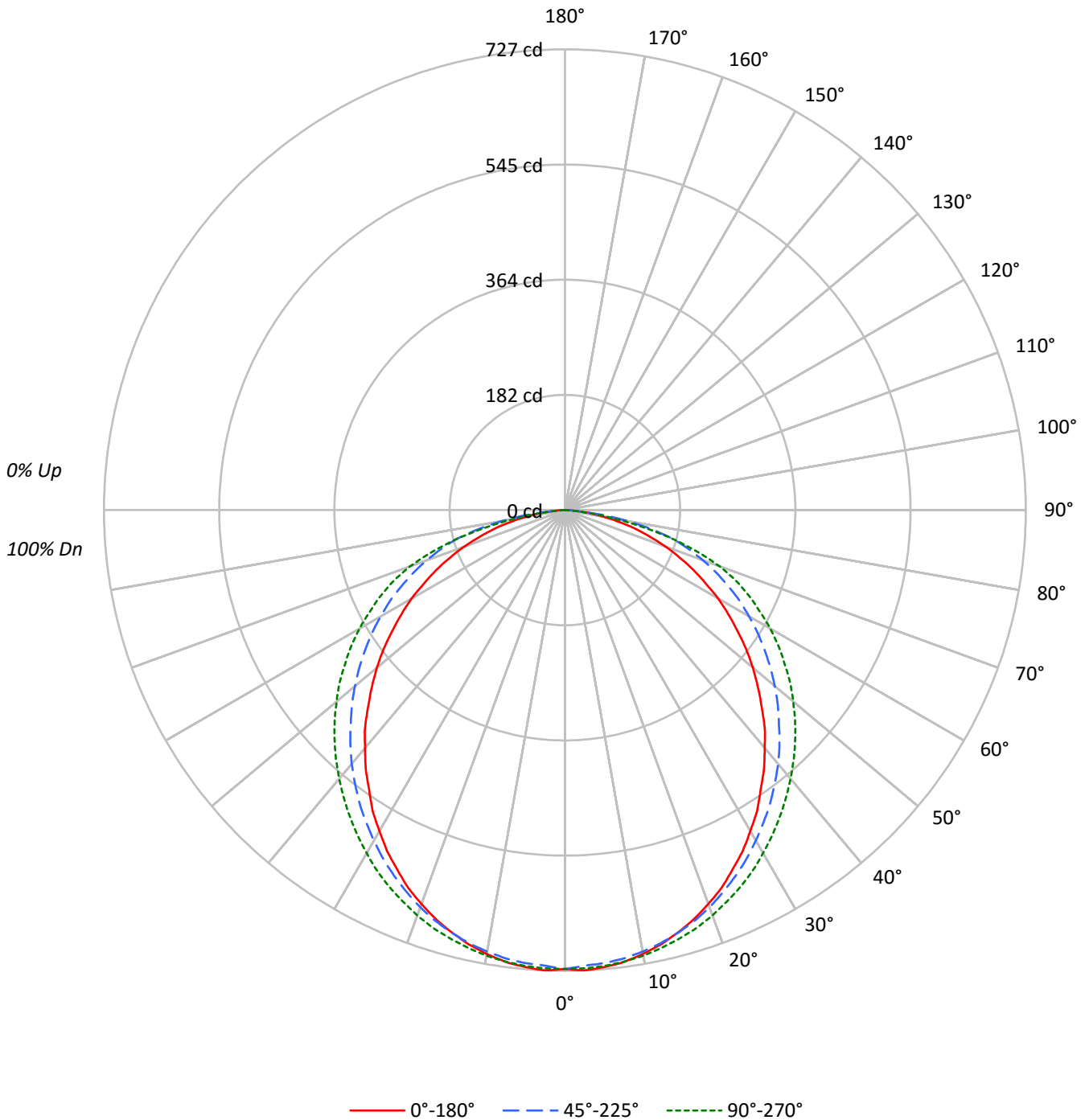
Lumens per Lamp: N/A
Luminaire Lumens: 2102.0 lumens
Efficiency: N/A
Efficacy: 124.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 16.9
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-4000K

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°	1949	1949	1949
5°	1955	1938	1950
10°	1943	1933	1950
15°	1922	1923	1950
20°	1894	1910	1949
25°	1858	1891	1947
30°	1817	1872	1943
35°	1769	1855	1941
40°	1722	1838	1944
45°	1670	1818	1955
50°	1621	1809	1968
55°	1559	1803	1985
60°	1503	1806	2013
65°	1426	1812	2045
70°	1338	1825	2043
75°	1213	1842	1847
80°	995	1590	1314
85°	738	753	303



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.5	3.3
10°-20°	195.7	9.3
20°-30°	294.9	14.0
30°-40°	353.8	16.8
40°-50°	368.8	17.5
50°-60°	341.4	16.2
60°-70°	275.9	13.1
70°-80°	168.2	8.0
80°-90°	34.7	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°	559.1	26.6
0°-40°	913.0	43.4
0°-60°	1623.2	77.2
0°-90°	2102.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2102.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	724	724	724	724	724	
5°	724	722	718	723	722	69
15°	690	690	690	700	700	194
25°	626	630	637	653	656	288
35°	538	547	565	585	591	337
45°	439	452	478	504	514	339
55°	332	350	384	414	423	298
65°	224	246	284	313	321	222
75°	117	142	177	180	178	123
85°	24	36	24	14	10	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	724.1	724.1	724.1	724.1	724.1
2.5°	727.0	724.6	719.5	724.6	723.7
5°	723.7	721.8	717.6	722.7	721.8
7.5°	719.0	717.1	713.4	719.5	718.5
10°	711.0	710.1	707.3	714.3	713.8
12.5°	701.6	701.2	699.8	707.7	707.3
15°	689.9	690.4	690.4	699.8	699.8
17.5°	676.8	677.7	679.6	689.9	691.3
20°	661.3	663.2	667.0	678.7	680.6
22.5°	645.4	646.8	652.4	666.5	668.4
25°	625.7	629.5	637.0	652.9	655.7
27.5°	607.0	610.3	620.6	637.0	641.7
30°	584.9	590.1	602.3	620.1	625.2
32.5°	563.8	569.5	583.5	604.2	608.8
35°	538.5	547.0	564.8	585.4	591.0
37.5°	515.6	523.5	543.7	566.2	572.8
40°	490.3	500.1	523.1	547.0	553.5
42.5°	466.8	476.2	501.0	525.4	534.3
45°	438.7	451.8	477.6	504.3	513.7
47.5°	412.9	426.1	455.6	484.2	492.6
50°	387.1	401.2	432.1	461.7	470.1
52.5°	360.4	375.4	408.7	438.2	448.1
55°	332.3	349.7	384.3	414.3	423.2
57.5°	305.6	323.4	360.4	390.9	399.8
60°	279.3	297.6	335.6	364.7	374.0
62.5°	250.3	271.8	311.2	339.8	346.8
65°	224.0	246.1	284.5	313.1	321.1
67.5°	196.4	220.3	258.7	285.0	292.5
70°	170.1	195.0	232.0	256.4	259.7
72.5°	142.0	167.3	204.8	220.3	220.3
75°	116.7	142.5	177.2	180.0	177.6
77.5°	89.1	117.6	140.1	134.5	128.9
80°	64.2	92.3	102.6	92.3	84.8
82.5°	43.1	67.0	61.9	49.2	43.6
85°	23.9	35.6	24.4	13.6	9.8
87.5°	8.9	8.0	2.3	2.3	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)