

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: P312148

Luminaire Tested: **14FCZ2-20-UNV-L83050-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: P312148
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-4500K
Description: 1'X4' TROFFER LED MODULE,RIBBED 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

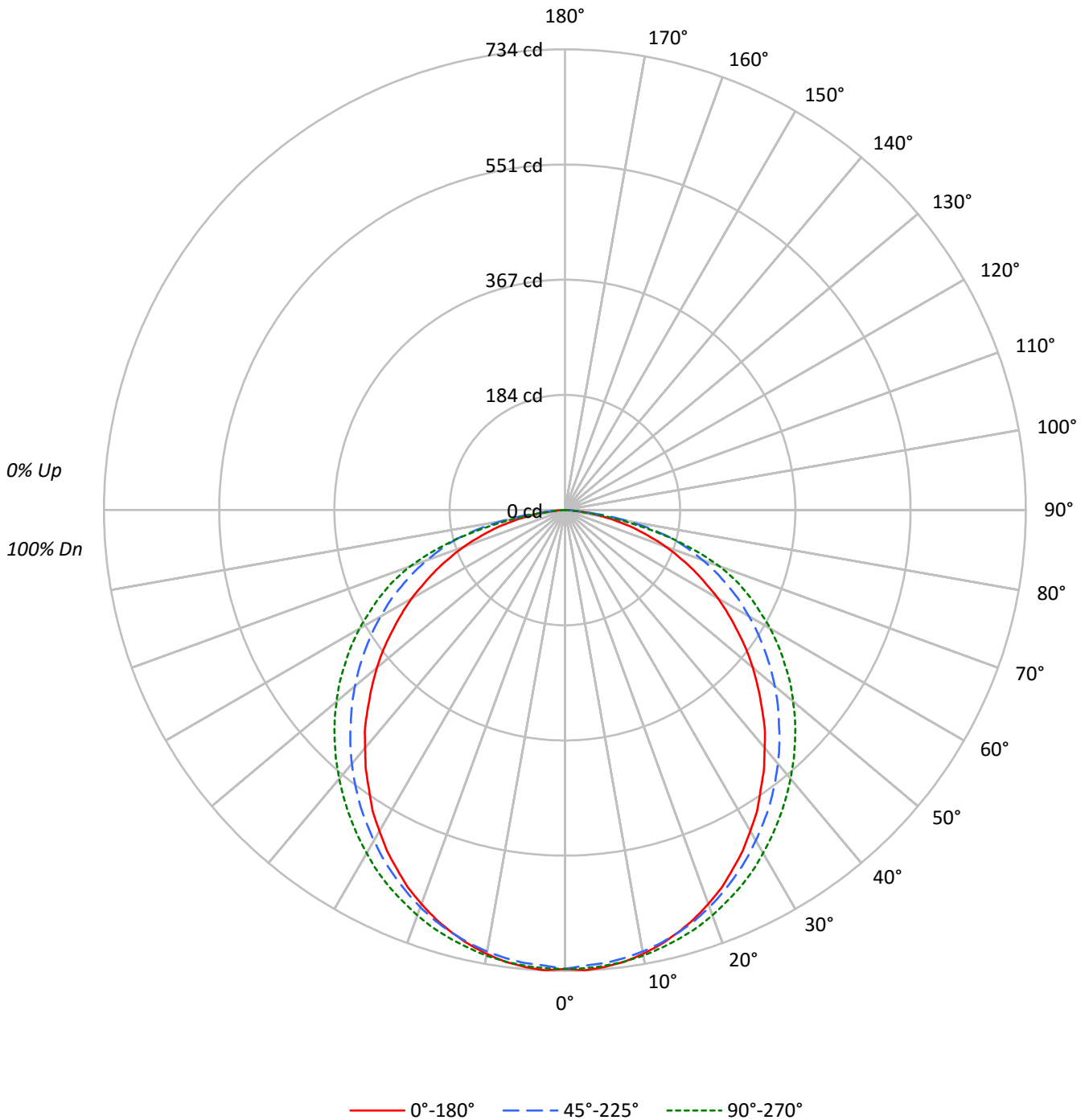
Lumens per Lamp: N/A
Luminaire Lumens: 2122.0 lumens
Efficiency: N/A
Efficacy: 122.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.3
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-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	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°	1967	1967	1967
5°	1974	1957	1968
10°	1961	1951	1969
15°	1940	1942	1968
20°	1912	1928	1967
25°	1876	1909	1966
30°	1835	1889	1961
35°	1786	1873	1960
40°	1738	1855	1963
45°	1686	1835	1974
50°	1636	1827	1987
55°	1574	1820	2005
60°	1518	1823	2032
65°	1440	1829	2064
70°	1352	1843	2062
75°	1225	1860	1864
80°	1004	1605	1327
85°	744	760	306



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.2	3.3
10°-20°	197.6	9.3
20°-30°	297.7	14.0
30°-40°	357.2	16.8
40°-50°	372.3	17.5
50°-60°	344.7	16.2
60°-70°	278.5	13.1
70°-80°	169.8	8.0
80°-90°	35.1	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°	564.5	26.6
0°-40°	921.7	43.4
0°-60°	1638.7	77.2
0°-90°	2122.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2122.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	731	731	731	731	731	
5°	731	729	724	730	729	69
15°	696	697	697	706	706	196
25°	632	636	643	659	662	291
35°	544	552	570	591	597	341
45°	443	456	482	509	519	342
55°	336	353	388	418	427	301
65°	226	248	287	316	324	224
75°	118	144	179	182	179	124
85°	24	36	25	14	10	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	731.0	731.0	731.0	731.0	731.0
2.5°	733.9	731.5	726.3	731.5	730.6
5°	730.6	728.7	724.4	729.6	728.7
7.5°	725.8	723.9	720.2	726.3	725.4
10°	717.8	716.8	714.0	721.1	720.6
12.5°	708.3	707.9	706.4	714.5	714.0
15°	696.5	697.0	697.0	706.4	706.4
17.5°	683.2	684.2	686.1	696.5	697.9
20°	667.6	669.5	673.3	685.1	687.0
22.5°	651.5	653.0	658.6	672.8	674.7
25°	631.7	635.5	643.0	659.1	662.0
27.5°	612.7	616.1	626.5	643.0	647.8
30°	590.5	595.7	608.0	626.0	631.2
32.5°	569.2	574.9	589.1	609.9	614.6
35°	543.7	552.2	570.2	591.0	596.7
37.5°	520.5	528.5	548.9	571.6	578.2
40°	494.9	504.9	528.0	552.2	558.8
42.5°	471.3	480.7	505.8	530.4	539.4
45°	442.9	456.1	482.2	509.1	518.6
47.5°	416.9	430.1	459.9	488.8	497.3
50°	390.8	405.0	436.3	466.1	474.6
52.5°	363.9	379.0	412.6	442.4	452.3
55°	335.5	353.0	388.0	418.3	427.3
57.5°	308.5	326.5	363.9	394.6	403.6
60°	282.0	300.5	338.8	368.1	377.6
62.5°	252.7	274.4	314.2	343.0	350.1
65°	226.2	248.4	287.2	316.1	324.1
67.5°	198.3	222.4	261.2	287.7	295.3
70°	171.8	196.8	234.2	258.8	262.1
72.5°	143.4	168.9	206.8	222.4	222.4
75°	117.8	143.8	178.9	181.7	179.3
77.5°	89.9	118.8	141.5	135.8	130.1
80°	64.8	93.2	103.6	93.2	85.6
82.5°	43.5	67.7	62.5	49.7	44.0
85°	24.1	36.0	24.6	13.7	9.9
87.5°	9.0	8.0	2.4	2.4	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)