

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: P312144

Luminaire Tested: **14FCZ2-20-UNV-L83050-CA08-W2A-U-5000K**

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: P312144
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-CA08-W2A-U-5000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 5000K 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: 2129.0 lumens
Efficiency: N/A
Efficacy: 123.1 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

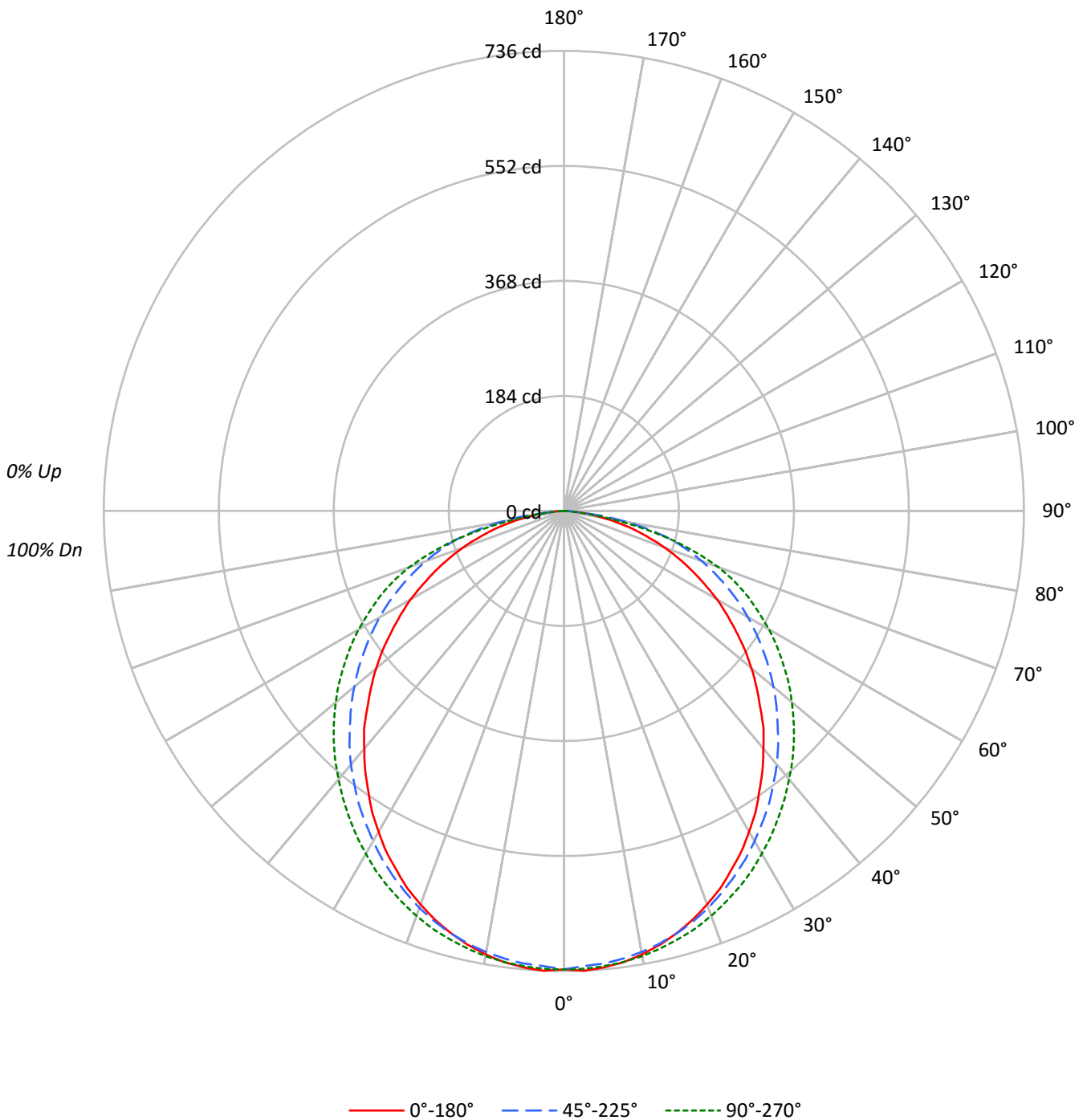
Input Watts (W): 17.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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°	1974	1974	1974
5°	1980	1963	1975
10°	1968	1958	1976
15°	1947	1948	1975
20°	1918	1934	1974
25°	1882	1915	1972
30°	1841	1895	1968
35°	1792	1879	1966
40°	1744	1861	1969
45°	1691	1841	1980
50°	1641	1832	1993
55°	1579	1826	2011
60°	1523	1829	2039
65°	1445	1835	2071
70°	1356	1849	2069
75°	1229	1865	1870
80°	1007	1612	1331
85°	747	763	309



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.4	3.3
10°-20°	198.3	9.3
20°-30°	298.7	14.0
30°-40°	358.4	16.8
40°-50°	373.5	17.5
50°-60°	345.8	16.2
60°-70°	279.4	13.1
70°-80°	170.4	8.0
80°-90°	35.2	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°	566.3	26.6
0°-40°	924.7	43.4
0°-60°	1644.1	77.2
0°-90°	2129.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2129.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	733	733	733	733	733	
5°	733	731	727	732	731	70
15°	699	699	699	709	709	197
25°	634	638	645	661	664	292
35°	546	554	572	593	599	342
45°	444	458	484	511	520	343
55°	337	354	389	420	429	302
65°	227	249	288	317	325	224
75°	118	144	179	182	180	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°	733.4	733.4	733.4	733.4	733.4
2.5°	736.3	733.9	728.7	733.9	733.0
5°	733.0	731.1	726.8	732.0	731.1
7.5°	728.2	726.3	722.5	728.7	727.8
10°	720.2	719.2	716.4	723.5	723.0
12.5°	710.7	710.2	708.8	716.8	716.4
15°	698.8	699.3	699.3	708.8	708.8
17.5°	685.5	686.4	688.3	698.8	700.2
20°	669.8	671.7	675.5	687.4	689.3
22.5°	653.7	655.1	660.8	675.1	677.0
25°	633.8	637.6	645.1	661.3	664.1
27.5°	614.8	618.1	628.5	645.1	649.9
30°	592.5	597.7	610.0	628.1	633.3
32.5°	571.1	576.8	591.0	611.9	616.7
35°	545.5	554.0	572.0	592.9	598.6
37.5°	522.2	530.3	550.7	573.5	580.1
40°	496.6	506.5	529.8	554.0	560.6
42.5°	472.8	482.3	507.5	532.2	541.2
45°	444.3	457.6	483.7	510.8	520.3
47.5°	418.2	431.5	461.4	490.4	498.9
50°	392.1	406.4	437.7	467.6	476.1
52.5°	365.1	380.3	414.0	443.9	453.8
55°	336.6	354.1	389.3	419.7	428.7
57.5°	309.5	327.6	365.1	395.9	404.9
60°	282.9	301.4	339.9	369.3	378.8
62.5°	253.5	275.3	315.2	344.2	351.3
65°	226.9	249.2	288.2	317.1	325.2
67.5°	198.9	223.1	262.0	288.6	296.2
70°	172.3	197.5	235.0	259.7	263.0
72.5°	143.8	169.5	207.5	223.1	223.1
75°	118.2	144.3	179.4	182.3	179.9
77.5°	90.2	119.2	141.9	136.2	130.5
80°	65.0	93.5	104.0	93.5	85.9
82.5°	43.7	67.9	62.7	49.8	44.1
85°	24.2	36.1	24.7	13.8	10.0
87.5°	9.0	8.1	2.4	2.4	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)