

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: P312141

Luminaire Tested: **14FCZ2-20-UNV-L83050-CA08-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: P312141
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-3500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.08" 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: 2009.0 lumens
Efficiency: N/A
Efficacy: 121.8 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

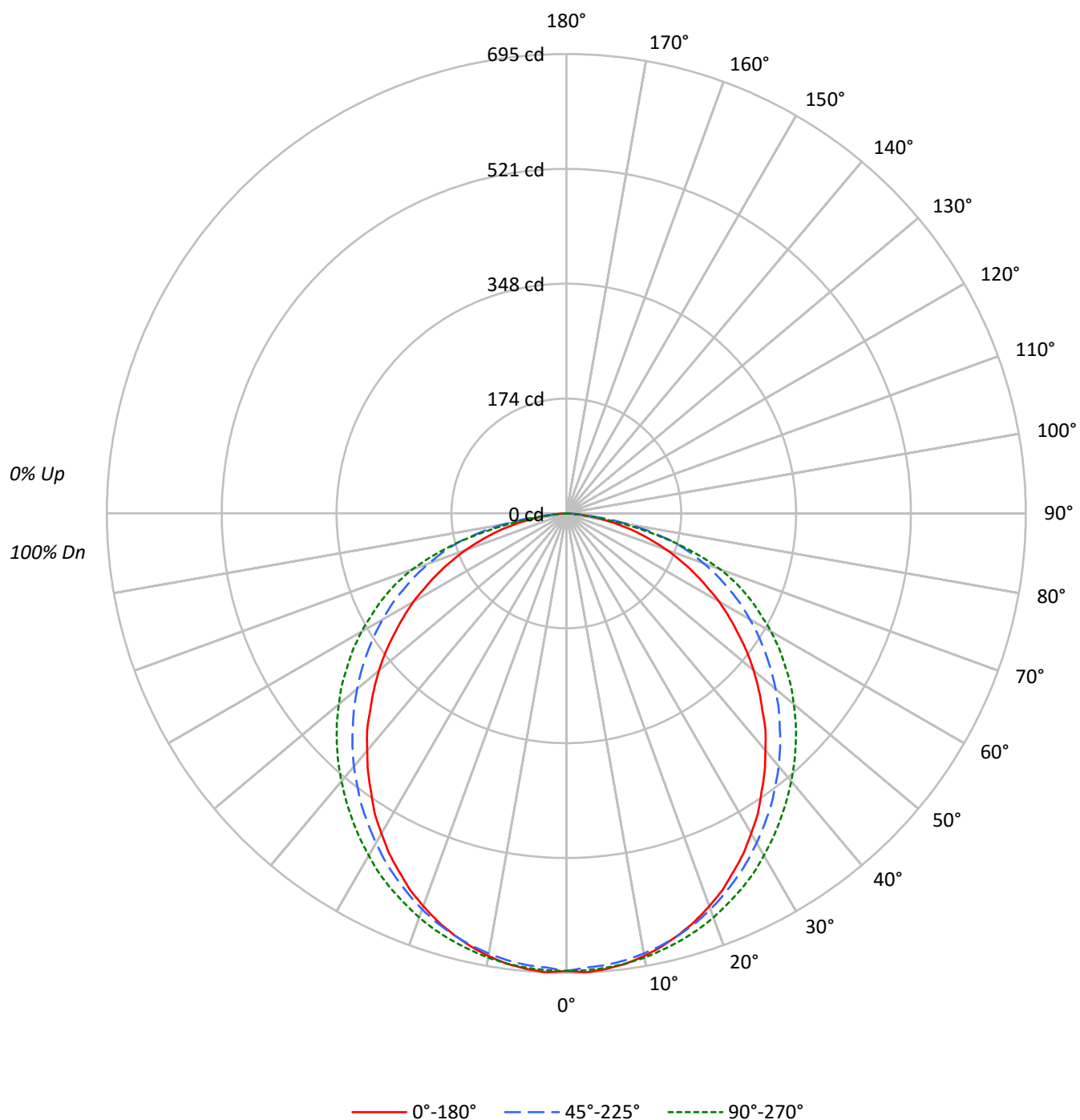
Input Watts (W): 16.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	109	104	99	95	106	101	97	94	97	94	91		93	90	88		83
2	98	90	83	77	96	88	82	76	84	79	74		81	77	73		69
3	90	79	70	64	87	77	69	63	74	67	62		71	66	61		58
4	82	70	61	54	79	68	60	53	66	58	53		63	57	52		49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		32
8	60	46	37	32	58	45	37	31	44	37	31		43	36	31		29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		26
10	52	39	31	26	51	39	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1862	1862	1862
5°	1868	1853	1864
10°	1857	1847	1864
15°	1837	1838	1863
20°	1810	1826	1863
25°	1776	1808	1861
30°	1737	1789	1857
35°	1691	1773	1856
40°	1646	1756	1858
45°	1596	1737	1869
50°	1549	1729	1881
55°	1490	1723	1898
60°	1437	1726	1924
65°	1363	1731	1954
70°	1279	1744	1953
75°	1159	1760	1765
80°	951	1520	1257
85°	704	719	290



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.5	3.3
10°-20°	187.1	9.3
20°-30°	281.8	14.0
30°-40°	338.2	16.8
40°-50°	352.5	17.5
50°-60°	326.3	16.2
60°-70°	263.7	13.1
70°-80°	160.7	8.0
80°-90°	33.2	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°	534.4	26.6
0°-40°	872.6	43.4
0°-60°	1551.4	77.2
0°-90°	2009.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2009.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	692	692	692	692	692	
5°	692	690	686	691	690	66
15°	659	660	660	669	669	186
25°	598	602	609	624	627	276
35°	515	523	540	560	565	322
45°	419	432	456	482	491	324
55°	318	334	367	396	404	285
65°	214	235	272	299	307	212
75°	112	136	169	172	170	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°	692.1	692.1	692.1	692.1	692.1
2.5°	694.8	692.6	687.6	692.6	691.7
5°	691.7	689.9	685.8	690.8	689.9
7.5°	687.2	685.4	681.8	687.6	686.7
10°	679.6	678.7	676.0	682.7	682.3
12.5°	670.6	670.2	668.8	676.4	676.0
15°	659.4	659.9	659.9	668.8	668.8
17.5°	646.9	647.8	649.6	659.4	660.7
20°	632.1	633.9	637.5	648.7	650.4
22.5°	616.8	618.2	623.6	637.0	638.8
25°	598.0	601.6	608.8	624.0	626.7
27.5°	580.1	583.3	593.1	608.8	613.3
30°	559.1	564.0	575.6	592.7	597.6
32.5°	538.9	544.3	557.7	577.4	581.9
35°	514.7	522.8	539.8	559.5	564.9
37.5°	492.8	500.4	519.6	541.1	547.4
40°	468.6	478.0	499.9	522.8	529.0
42.5°	446.2	455.1	478.9	502.2	510.7
45°	419.3	431.8	456.5	482.0	491.0
47.5°	394.7	407.2	435.4	462.7	470.8
50°	370.0	383.5	413.0	441.2	449.3
52.5°	344.5	358.8	390.6	418.8	428.3
55°	317.6	334.2	367.3	396.0	404.5
57.5°	292.1	309.1	344.5	373.6	382.1
60°	267.0	284.5	320.7	348.5	357.5
62.5°	239.2	259.8	297.4	324.8	331.5
65°	214.1	235.2	271.9	299.2	306.9
67.5°	187.7	210.5	247.3	272.4	279.5
70°	162.6	186.4	221.7	245.0	248.2
72.5°	135.7	159.9	195.8	210.5	210.5
75°	111.5	136.2	169.3	172.0	169.8
77.5°	85.1	112.4	133.9	128.6	123.2
80°	61.4	88.2	98.1	88.2	81.1
82.5°	41.2	64.1	59.1	47.0	41.7
85°	22.8	34.0	23.3	13.0	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)