

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: P307523

Luminaire Tested: **14FCZ2-20-UNV-L82765-CA08-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: P307523
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-L82765-CA08-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.08" 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: 2005.0 lumens
Efficiency: N/A
Efficacy: 120.1 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

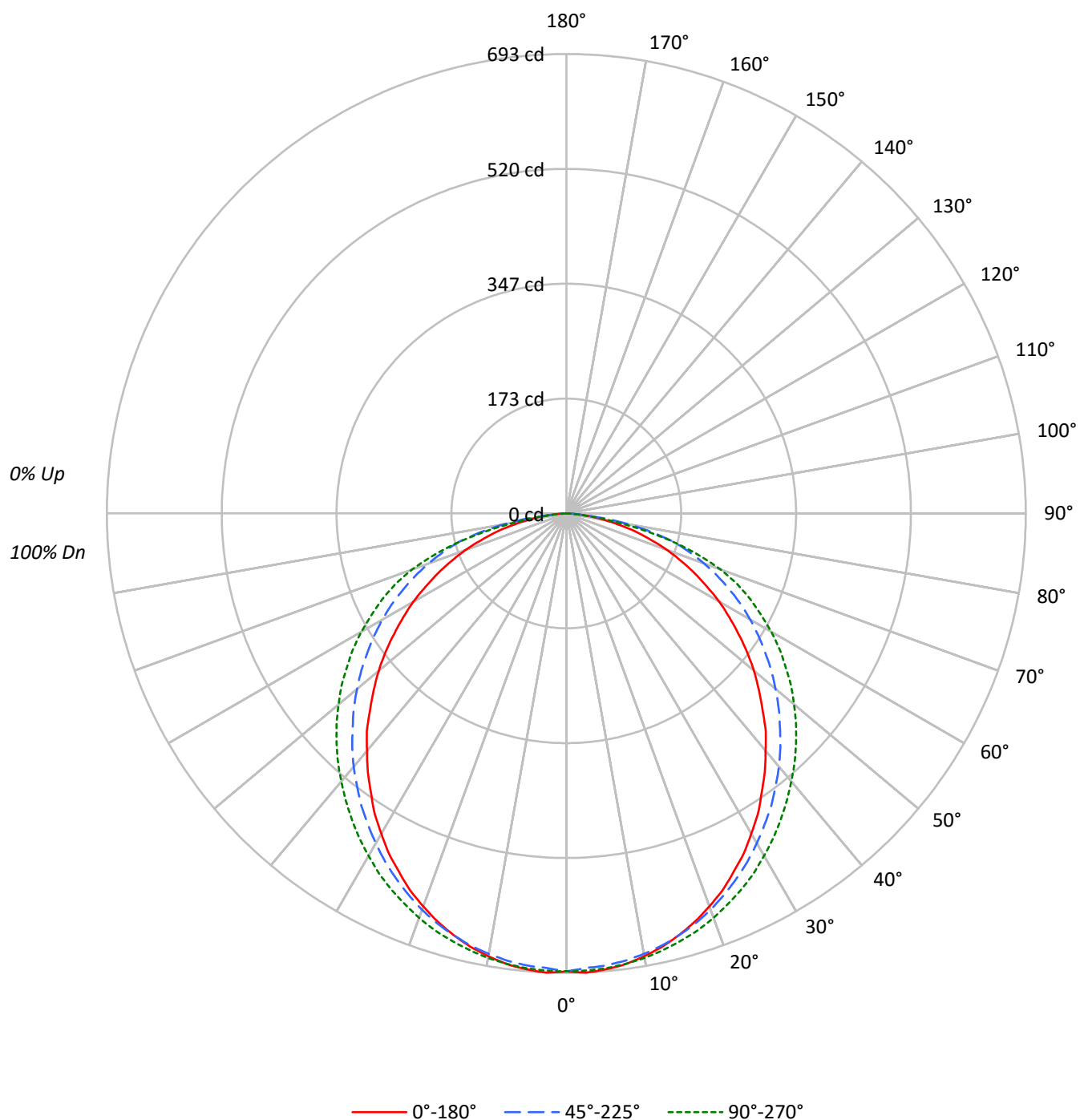
Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	89	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°	1859	1859	1859
5°	1865	1849	1860
10°	1853	1843	1861
15°	1833	1835	1860
20°	1806	1822	1859
25°	1772	1804	1857
30°	1734	1785	1853
35°	1688	1770	1852
40°	1643	1753	1855
45°	1593	1734	1865
50°	1546	1726	1877
55°	1487	1720	1894
60°	1434	1723	1920
65°	1361	1728	1950
70°	1277	1741	1949
75°	1157	1757	1761
80°	948	1517	1254
85°	704	716	290



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.4	3.3
10°-20°	186.7	9.3
20°-30°	281.3	14.0
30°-40°	337.5	16.8
40°-50°	351.8	17.5
50°-60°	325.7	16.2
60°-70°	263.1	13.1
70°-80°	160.4	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°	533.3	26.6
0°-40°	870.9	43.4
0°-60°	1548.3	77.2
0°-90°	2005.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2005.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	691	691	691	691	691	
5°	690	688	684	689	688	66
15°	658	658	658	668	668	186
25°	597	600	608	623	626	275
35°	514	522	539	558	564	322
45°	418	431	456	481	490	323
55°	317	334	367	395	404	284
65°	214	235	271	299	306	211
75°	111	136	169	172	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°	690.7	690.7	690.7	690.7	690.7
2.5°	693.4	691.2	686.3	691.2	690.3
5°	690.3	688.5	684.5	689.4	688.5
7.5°	685.8	684.0	680.4	686.3	685.4
10°	678.2	677.3	674.6	681.3	680.9
12.5°	669.3	668.8	667.5	675.1	674.6
15°	658.1	658.5	658.5	667.5	667.5
17.5°	645.6	646.5	648.3	658.1	659.4
20°	630.8	632.6	636.2	647.4	649.2
22.5°	615.6	617.0	622.3	635.7	637.5
25°	596.8	600.4	607.6	622.8	625.5
27.5°	579.0	582.1	591.9	607.6	612.0
30°	557.9	562.9	574.5	591.5	596.4
32.5°	537.8	543.2	556.6	576.3	580.7
35°	513.7	521.7	538.7	558.4	563.8
37.5°	491.8	499.4	518.6	540.1	546.3
40°	467.6	477.0	498.9	521.7	528.0
42.5°	445.3	454.2	477.9	501.2	509.7
45°	418.5	431.0	455.6	481.1	490.0
47.5°	393.9	406.4	434.6	461.8	469.9
50°	369.3	382.7	412.2	440.4	448.4
52.5°	343.8	358.1	389.8	418.0	427.4
55°	317.0	333.5	366.6	395.2	403.7
57.5°	291.5	308.5	343.8	372.9	381.4
60°	266.5	283.9	320.1	347.8	356.8
62.5°	238.7	259.3	296.9	324.1	330.8
65°	213.7	234.7	271.4	298.6	306.2
67.5°	187.3	210.1	246.8	271.8	279.0
70°	162.3	186.0	221.3	244.5	247.7
72.5°	135.5	159.6	195.4	210.1	210.1
75°	111.3	135.9	169.0	171.7	169.4
77.5°	84.9	112.2	133.7	128.3	122.9
80°	61.2	88.1	97.9	88.1	80.9
82.5°	41.1	63.9	59.0	46.9	41.6
85°	22.8	34.0	23.2	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)