

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: P307071

Luminaire Tested: **14FCZ2-29-UNV-L82765-HRP-CA08-W2A-U-3000K**

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: P307071
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-29-UNV-L82765-HRP-CA08-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 3000K 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: 2007.0 lumens
Efficiency: N/A
Efficacy: 85.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

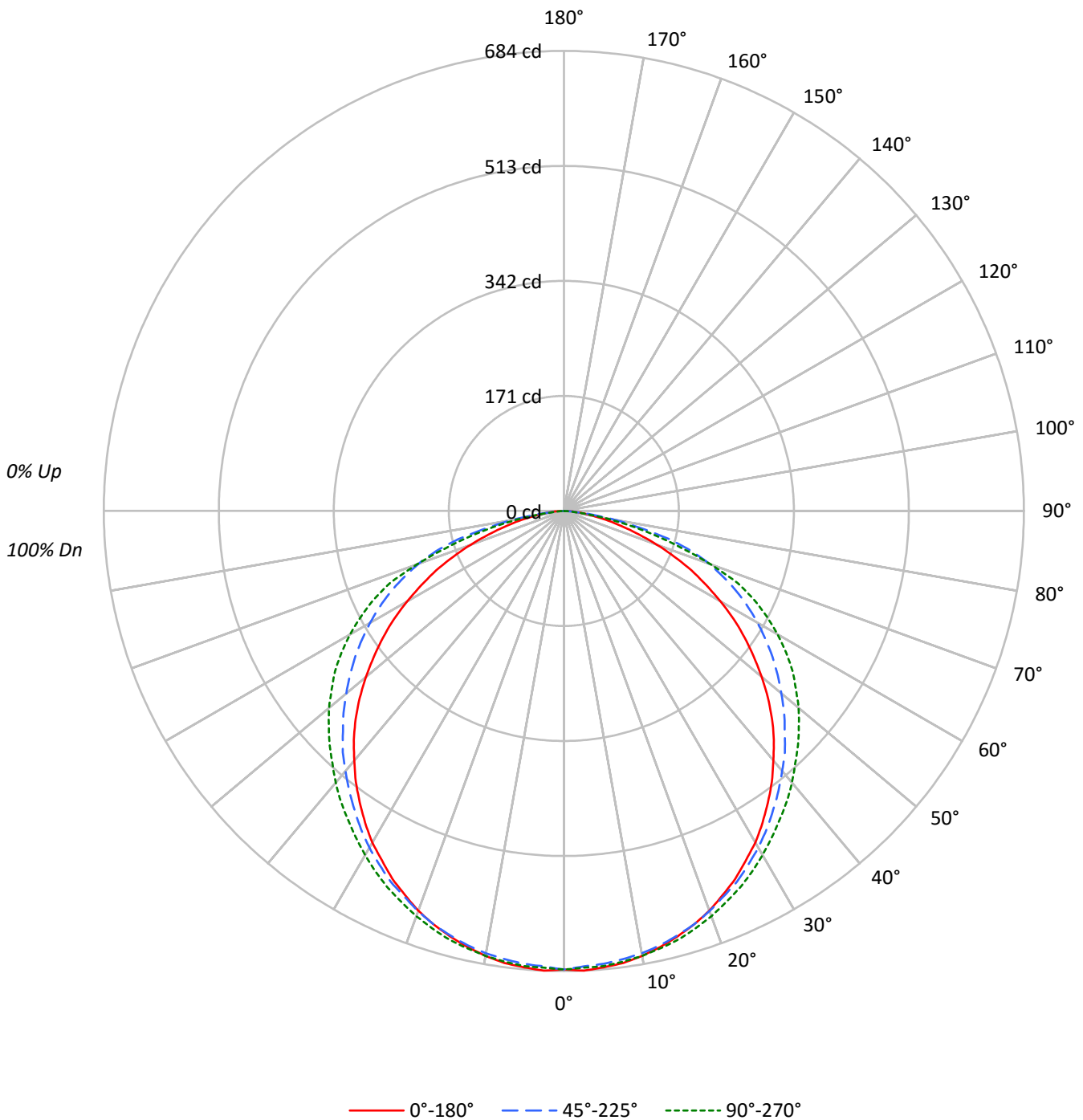
Input Watts (W): 23.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	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	38	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1834	1834	1834
5°	1840	1826	1834
10°	1835	1824	1835
15°	1823	1820	1837
20°	1811	1813	1836
25°	1791	1806	1836
30°	1769	1796	1835
35°	1737	1783	1839
40°	1703	1774	1853
45°	1667	1768	1874
50°	1609	1768	1908
55°	1540	1777	1948
60°	1447	1790	1974
65°	1334	1808	1985
70°	1162	1813	1827
75°	958	1686	1476
80°	753	1213	987
85°	584	466	235



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.5	3.2
10°-20°	185.2	9.2
20°-30°	281.2	14.0
30°-40°	340.7	17.0
40°-50°	359.0	17.9
50°-60°	335.2	16.7
60°-70°	267.9	13.3
70°-80°	147.4	7.3
80°-90°	26.0	1.3
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°	530.9	26.5
0°-40°	871.6	43.4
0°-60°	1565.7	78.0
0°-90°	2007.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2007.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	682	682	682	682	682	
5°	681	679	676	680	679	65
15°	654	654	653	660	660	185
25°	603	605	608	617	618	278
35°	529	534	543	557	560	331
45°	438	446	464	485	492	337
55°	328	345	379	405	415	293
65°	210	236	284	307	312	206
75°	92	132	162	146	142	99
85°	19	24	15	10	8	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	681.6	681.6	681.6	681.6	681.6
2.5°	684.1	682.2	677.8	681.6	679.7
5°	681.0	679.1	675.9	680.3	679.1
7.5°	677.8	675.3	672.1	677.2	675.9
10°	671.5	669.6	667.7	672.1	671.5
12.5°	663.9	663.3	661.4	666.4	665.8
15°	654.5	654.5	653.2	659.5	659.5
17.5°	644.4	643.7	644.4	651.3	650.7
20°	632.4	632.4	633.0	641.2	641.2
22.5°	617.8	618.5	620.4	630.5	629.8
25°	603.3	604.6	608.4	617.2	618.5
27.5°	585.7	588.8	593.2	604.0	605.2
30°	569.3	571.1	578.1	588.2	590.7
32.5°	549.7	553.5	561.0	572.4	575.6
35°	528.9	533.9	542.7	556.6	559.8
37.5°	508.0	512.5	524.4	539.0	544.6
40°	484.7	492.3	504.9	521.3	527.6
42.5°	462.0	469.5	486.6	503.6	509.3
45°	438.0	446.2	464.5	485.3	492.3
47.5°	411.5	420.9	444.3	466.4	474.0
50°	384.3	396.3	422.2	446.8	455.7
52.5°	355.9	371.1	400.7	426.6	434.8
55°	328.2	344.6	378.7	405.2	415.3
57.5°	299.8	317.4	355.9	386.2	391.9
60°	268.8	290.3	332.6	359.1	366.7
62.5°	238.6	263.2	308.6	333.9	340.2
65°	209.5	236.0	284.0	307.3	311.8
67.5°	178.0	209.5	256.9	278.3	279.6
70°	147.7	184.3	230.4	240.4	232.2
72.5°	118.0	157.1	199.4	191.2	184.3
75°	92.1	131.9	162.2	145.8	142.0
77.5°	68.2	107.9	116.1	107.3	100.3
80°	48.6	85.2	78.3	66.9	63.7
82.5°	33.4	53.6	42.9	33.4	29.0
85°	18.9	24.0	15.1	9.5	7.6
87.5°	8.2	5.7	3.2	2.5	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)