

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: P307070

Luminaire Tested: **14FCZ2-29-UNV-L82765-HRP-CA08-W2A-U-2700K**

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: P307070
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-2700K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 2700K 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: 1950.0 lumens
Efficiency: N/A
Efficacy: 81.9 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

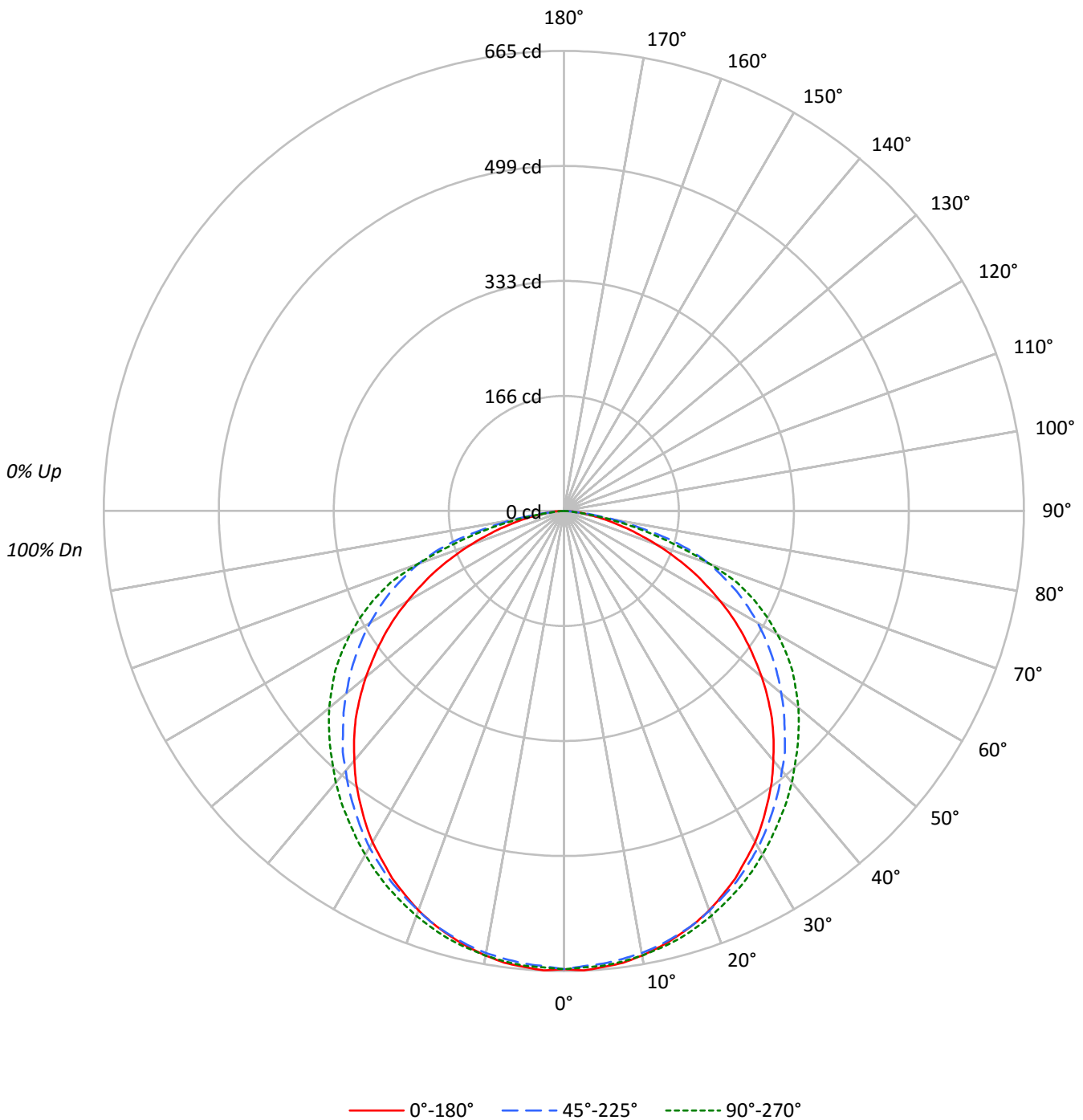
Input Watts (W): 23.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P307070

CATALOG NUMBER: 14FCZ2-29-UNV-L82765-HRP-CA08-W2A-U-2700K

Luminous Intensity Polar Plot





TEST NUMBER: P307070

CATALOG NUMBER: 14FCZ2-29-UNV-L82765-HRP-CA08-W2A-U-2700K

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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84				84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69				69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58				58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49				49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42				42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37				37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33				33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29				29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26				26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24				24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1782	1782	1782
5°	1787	1774	1782
10°	1783	1773	1783
15°	1772	1768	1785
20°	1759	1761	1784
25°	1741	1755	1784
30°	1719	1745	1783
35°	1688	1732	1787
40°	1654	1723	1801
45°	1619	1717	1820
50°	1563	1717	1853
55°	1496	1726	1893
60°	1406	1739	1918
65°	1296	1757	1929
70°	1129	1761	1775
75°	931	1639	1435
80°	731	1178	959
85°	568	454	228



TEST NUMBER: P307070

CATALOG NUMBER: 14FCZ2-29-UNV-L82765-HRP-CA08-W2A-U-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.7	3.2
10°-20°	179.9	9.2
20°-30°	273.2	14.0
30°-40°	331.0	17.0
40°-50°	348.8	17.9
50°-60°	325.7	16.7
60°-70°	260.2	13.3
70°-80°	143.2	7.3
80°-90°	25.3	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°	515.8	26.5
0°-40°	846.8	43.4
0°-60°	1521.3	78.0
0°-90°	1950.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1950.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	662	662	662	662	662	
5°	662	660	657	661	660	63
15°	636	636	635	641	641	179
25°	586	587	591	600	601	270
35°	514	519	527	541	544	322
45°	426	434	451	472	478	327
55°	319	335	368	394	404	285
65°	204	229	276	299	303	200
75°	90	128	158	142	138	96
85°	18	23	15	9	7	22
90°	0	0	0	0	0	



TEST NUMBER: P307070

CATALOG NUMBER: 14FCZ2-29-UNV-L82765-HRP-CA08-W2A-U-2700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	662.2	662.2	662.2	662.2	662.2
2.5°	664.7	662.8	658.6	662.2	660.4
5°	661.6	659.8	656.7	661.0	659.8
7.5°	658.6	656.1	653.0	657.9	656.7
10°	652.4	650.6	648.7	653.0	652.4
12.5°	645.1	644.4	642.6	647.5	646.9
15°	635.9	635.9	634.6	640.8	640.8
17.5°	626.1	625.4	626.1	632.8	632.2
20°	614.4	614.4	615.0	623.0	623.0
22.5°	600.3	600.9	602.8	612.6	611.9
25°	586.2	587.4	591.1	599.7	600.9
27.5°	569.0	572.1	576.4	586.8	588.0
30°	553.1	554.9	561.7	571.5	573.9
32.5°	534.1	537.8	545.1	556.2	559.2
35°	513.8	518.7	527.3	540.8	543.9
37.5°	493.6	497.9	509.5	523.7	529.2
40°	470.9	478.3	490.5	506.5	512.6
42.5°	448.8	456.2	472.8	489.3	494.8
45°	425.5	433.5	451.3	471.5	478.3
47.5°	399.8	409.0	431.7	453.1	460.5
50°	373.4	385.1	410.2	434.1	442.7
52.5°	345.8	360.5	389.4	414.5	422.5
55°	318.9	334.8	367.9	393.7	403.5
57.5°	291.3	308.4	345.8	375.3	380.8
60°	261.2	282.1	323.1	348.9	356.3
62.5°	231.8	255.7	299.8	324.4	330.5
65°	203.6	229.3	275.9	298.6	302.9
67.5°	172.9	203.6	249.6	270.4	271.6
70°	143.5	179.0	223.8	233.6	225.6
72.5°	114.7	152.7	193.8	185.8	179.0
75°	89.5	128.2	157.6	141.6	138.0
77.5°	66.2	104.9	112.8	104.2	97.5
80°	47.2	82.8	76.0	65.0	61.9
82.5°	32.5	52.1	41.7	32.5	28.2
85°	18.4	23.3	14.7	9.2	7.4
87.5°	8.0	5.5	3.1	2.5	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)