

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: P312067

Luminaire Tested: **14FCZ2-35-UNV-L83050-RDP-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: P312067
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-35-UNV-L83050-RDP-CA08-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 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: 2270.0 lumens
Efficiency: N/A
Efficacy: 75.2 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

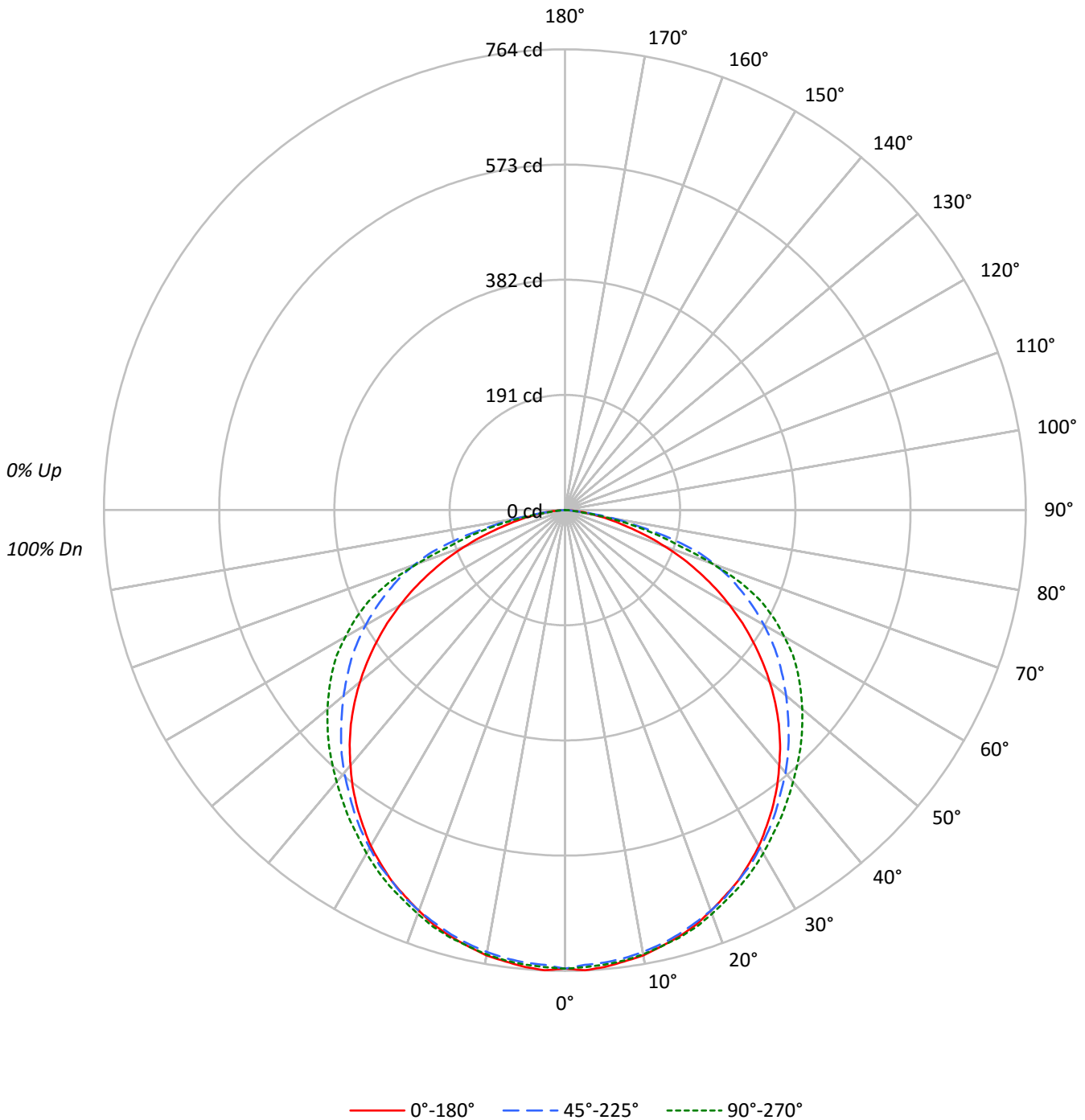
Input Watts (W): 30.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	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	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2046	2046	2046
5°	2054	2035	2044
10°	2048	2034	2044
15°	2039	2029	2044
20°	2025	2025	2040
25°	2015	2015	2042
30°	1999	2010	2043
35°	1974	2003	2049
40°	1942	1998	2067
45°	1909	1996	2104
50°	1855	2003	2151
55°	1787	2029	2212
60°	1698	2051	2260
65°	1568	2076	2291
70°	1394	2091	2050
75°	1124	1880	1640
80°	879	1319	1071
85°	602	383	275



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.0	3.2
10°-20°	206.5	9.1
20°-30°	314.4	13.8
30°-40°	382.9	16.9
40°-50°	406.2	17.9
50°-60°	383.4	16.9
60°-70°	309.6	13.6
70°-80°	167.9	7.4
80°-90°	27.2	1.2
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°	592.8	26.1
0°-40°	975.7	43.0
0°-60°	1765.3	77.8
0°-90°	2270.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2270.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	760	760	760	760	760	
5°	760	758	753	758	757	72
15°	732	730	728	734	734	207
25°	679	677	679	686	688	312
35°	601	604	610	622	624	376
45°	502	509	525	544	553	386
55°	381	397	432	461	471	340
65°	246	276	326	353	360	244
75°	108	158	181	163	158	118
85°	20	21	12	11	9	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	760.3	760.3	760.3	760.3	760.3
2.5°	763.8	760.3	755.0	760.3	758.5
5°	760.3	758.5	753.2	758.5	756.7
7.5°	755.0	755.0	749.6	753.2	753.2
10°	749.6	747.9	744.3	749.6	747.9
12.5°	740.8	739.0	737.2	742.6	740.8
15°	731.9	730.2	728.4	733.7	733.7
17.5°	721.3	719.5	717.7	724.8	724.8
20°	707.1	707.1	707.1	714.2	712.4
22.5°	692.9	692.9	694.7	701.8	700.0
25°	678.8	677.0	678.8	685.8	687.6
27.5°	661.0	662.8	664.6	671.7	673.4
30°	643.3	645.1	646.9	655.7	657.5
32.5°	622.0	625.6	629.1	639.8	639.8
35°	600.8	604.3	609.6	622.0	623.8
37.5°	577.7	581.3	588.4	602.6	606.1
40°	552.9	558.2	568.9	583.1	588.4
42.5°	528.1	535.2	547.6	563.6	570.7
45°	501.5	508.6	524.6	544.1	552.9
47.5°	473.2	482.0	501.5	526.3	533.4
50°	443.1	455.5	478.5	505.1	513.9
52.5°	412.9	427.1	455.5	483.8	492.7
55°	381.0	397.0	432.4	460.8	471.4
57.5°	349.1	366.8	407.6	437.7	448.4
60°	315.5	336.7	381.0	411.2	420.0
62.5°	281.8	306.6	354.4	384.6	391.7
65°	246.3	276.5	326.1	352.7	359.8
67.5°	212.7	248.1	297.7	317.2	317.2
70°	177.2	216.2	265.8	271.1	260.5
72.5°	141.8	186.1	230.4	210.9	202.0
75°	108.1	157.7	180.8	163.0	157.7
77.5°	81.5	127.6	127.6	117.0	113.4
80°	56.7	97.5	85.1	74.4	69.1
82.5°	37.2	54.9	44.3	35.4	30.1
85°	19.5	21.3	12.4	10.6	8.9
87.5°	7.1	3.5	1.8	3.5	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)