

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: P312070

Luminaire Tested: **14FCZ2-35-UNV-L83050-RDP-CA125-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: P312070
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-CA125-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.125" 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: 2036.0 lumens
Efficiency: N/A
Efficacy: 69.3 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

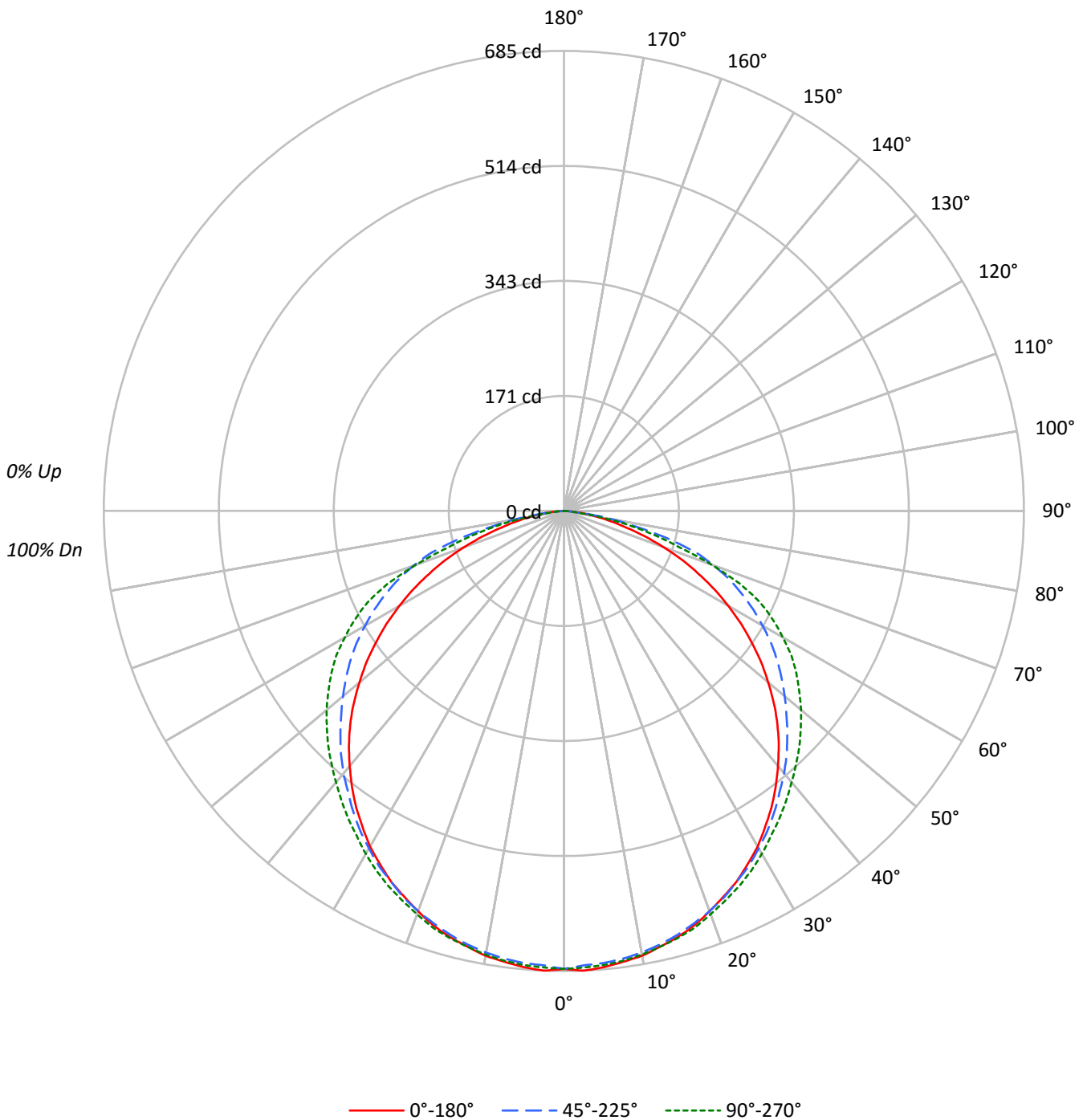
Input Watts (W): 29.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1835	1835	1835
5°	1842	1825	1833
10°	1837	1824	1833
15°	1829	1820	1833
20°	1816	1816	1830
25°	1808	1808	1831
30°	1793	1803	1832
35°	1770	1796	1838
40°	1742	1792	1854
45°	1712	1791	1887
50°	1664	1797	1930
55°	1603	1819	1984
60°	1523	1839	2027
65°	1407	1862	2055
70°	1251	1876	1839
75°	1009	1685	1471
80°	789	1182	961
85°	540	343	244



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.5	3.2
10°-20°	185.2	9.1
20°-30°	282.0	13.8
30°-40°	343.4	16.9
40°-50°	364.4	17.9
50°-60°	343.9	16.9
60°-70°	277.6	13.6
70°-80°	150.6	7.4
80°-90°	24.4	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°	531.7	26.1
0°-40°	875.1	43.0
0°-60°	1583.4	77.8
0°-90°	2036.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2036.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	682	682	682	682	682	
5°	682	680	676	680	679	65
15°	656	655	653	658	658	185
25°	609	607	609	615	617	280
35°	539	542	547	558	560	337
45°	450	456	470	488	496	346
55°	342	356	388	413	423	305
65°	221	248	292	316	323	219
75°	97	142	162	146	142	106
85°	18	19	11	10	8	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	681.9	681.9	681.9	681.9	681.9
2.5°	685.1	681.9	677.1	681.9	680.3
5°	681.9	680.3	675.6	680.3	678.7
7.5°	677.1	677.1	672.4	675.6	675.6
10°	672.4	670.8	667.6	672.4	670.8
12.5°	664.4	662.8	661.2	666.0	664.4
15°	656.5	654.9	653.3	658.1	658.1
17.5°	646.9	645.3	643.8	650.1	650.1
20°	634.2	634.2	634.2	640.6	639.0
22.5°	621.5	621.5	623.1	629.5	627.9
25°	608.8	607.2	608.8	615.1	616.7
27.5°	592.9	594.5	596.1	602.4	604.0
30°	577.0	578.6	580.2	588.1	589.7
32.5°	557.9	561.1	564.3	573.8	573.8
35°	538.9	542.0	546.8	557.9	559.5
37.5°	518.2	521.4	527.7	540.4	543.6
40°	495.9	500.7	510.2	523.0	527.7
42.5°	473.7	480.0	491.2	505.5	511.8
45°	449.8	456.2	470.5	488.0	495.9
47.5°	424.4	432.4	449.8	472.1	478.4
50°	397.4	408.5	429.2	453.0	461.0
52.5°	370.4	383.1	408.5	433.9	441.9
55°	341.7	356.1	387.8	413.3	422.8
57.5°	313.1	329.0	365.6	392.6	402.2
60°	282.9	302.0	341.7	368.8	376.7
62.5°	252.7	275.0	317.9	344.9	351.3
65°	220.9	248.0	292.5	316.3	322.7
67.5°	190.7	222.5	267.0	284.5	284.5
70°	159.0	193.9	238.4	243.2	233.7
72.5°	127.2	166.9	206.6	189.2	181.2
75°	97.0	141.5	162.1	146.2	141.5
77.5°	73.1	114.4	114.4	104.9	101.7
80°	50.9	87.4	76.3	66.8	62.0
82.5°	33.4	49.3	39.7	31.8	27.0
85°	17.5	19.1	11.1	9.5	7.9
87.5°	6.4	3.2	1.6	3.2	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)