

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: P307385

Luminaire Tested: **14FCZ2-35-UNV-L82765-RDP-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: P307385
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-L82765-RDP-CA08-W2A-U-2700K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 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: 1984.0 lumens
Efficiency: N/A
Efficacy: 67.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

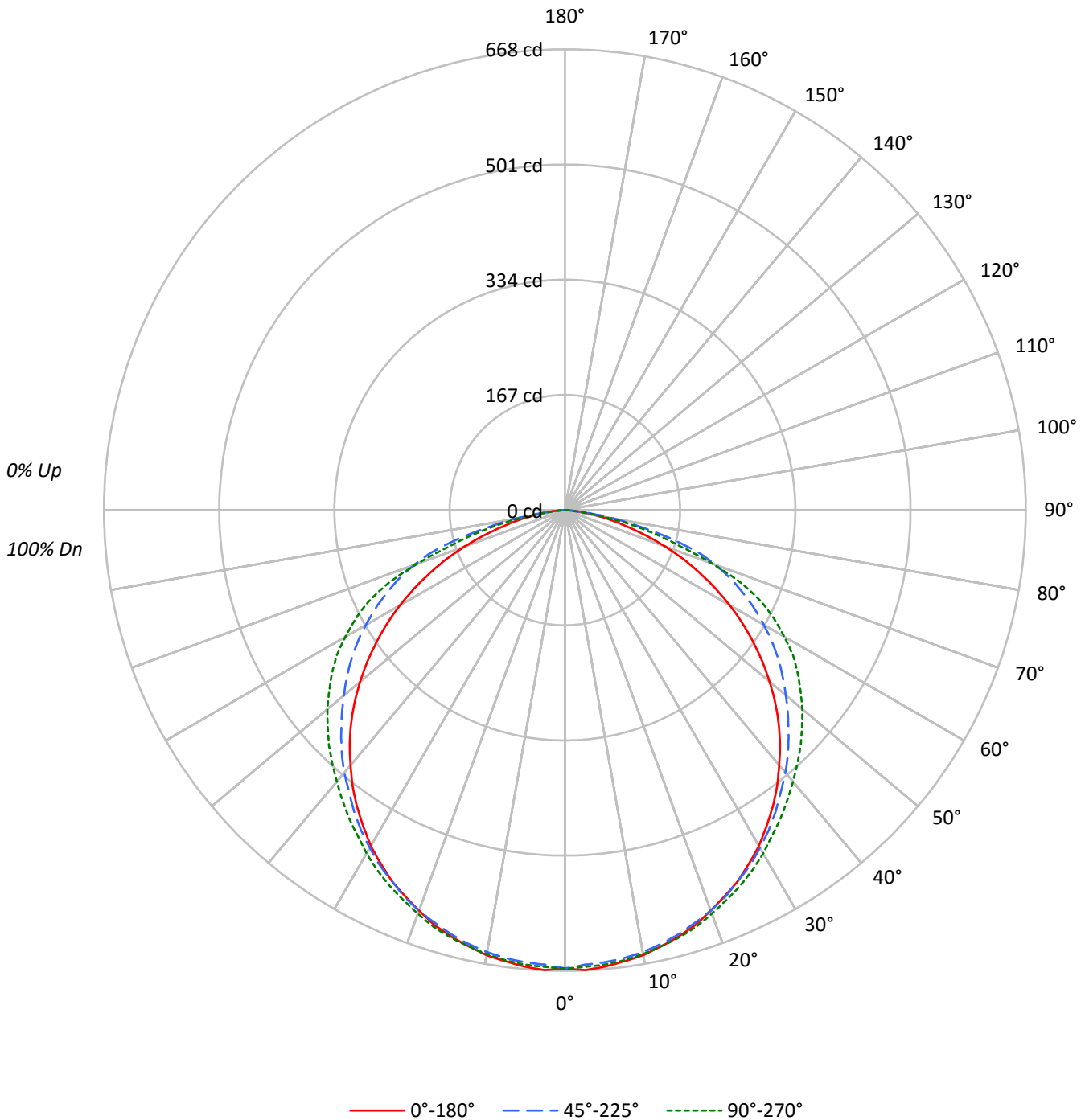
Input Watts (W): 29.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1788	1788	1788
5°	1795	1778	1787
10°	1790	1778	1786
15°	1782	1774	1787
20°	1770	1770	1783
25°	1761	1761	1784
30°	1747	1757	1786
35°	1725	1750	1791
40°	1698	1747	1806
45°	1668	1745	1839
50°	1621	1751	1881
55°	1562	1773	1933
60°	1484	1792	1976
65°	1371	1815	2002
70°	1219	1828	1792
75°	983	1643	1434
80°	769	1151	936
85°	525	333	238



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.9	3.2
10°-20°	180.5	9.1
20°-30°	274.8	13.8
30°-40°	334.7	16.9
40°-50°	355.0	17.9
50°-60°	335.1	16.9
60°-70°	270.6	13.6
70°-80°	146.8	7.4
80°-90°	23.7	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°	518.1	26.1
0°-40°	852.8	43.0
0°-60°	1542.9	77.8
0°-90°	1984.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1984.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	664	664	664	664	664	
5°	664	663	658	663	661	63
15°	640	638	637	641	641	180
25°	593	592	593	599	601	273
35°	525	528	533	544	545	328
45°	438	444	458	476	483	338
55°	333	347	378	403	412	297
65°	215	242	285	308	314	213
75°	94	138	158	142	138	103
85°	17	19	11	9	8	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	664.5	664.5	664.5	664.5	664.5
2.5°	667.6	664.5	659.8	664.5	662.9
5°	664.5	662.9	658.3	662.9	661.4
7.5°	659.8	659.8	655.2	658.3	658.3
10°	655.2	653.6	650.6	655.2	653.6
12.5°	647.5	645.9	644.4	649.0	647.5
15°	639.7	638.2	636.6	641.3	641.3
17.5°	630.4	628.9	627.3	633.5	633.5
20°	618.0	618.0	618.0	624.2	622.7
22.5°	605.6	605.6	607.2	613.4	611.8
25°	593.2	591.7	593.2	599.4	601.0
27.5°	577.8	579.3	580.8	587.0	588.6
30°	562.3	563.8	565.4	573.1	574.7
32.5°	543.7	546.8	549.9	559.2	559.2
35°	525.1	528.2	532.8	543.7	545.2
37.5°	505.0	508.1	514.2	526.6	529.7
40°	483.3	487.9	497.2	509.6	514.2
42.5°	461.6	467.8	478.6	492.6	498.8
45°	438.3	444.5	458.5	475.5	483.3
47.5°	413.6	421.3	438.3	460.0	466.2
50°	387.2	398.1	418.2	441.4	449.2
52.5°	360.9	373.3	398.1	422.9	430.6
55°	333.0	347.0	377.9	402.7	412.0
57.5°	305.1	320.6	356.3	382.6	391.9
60°	275.7	294.3	333.0	359.4	367.1
62.5°	246.3	268.0	309.8	336.1	342.3
65°	215.3	241.6	285.0	308.2	314.4
67.5°	185.9	216.9	260.2	277.3	277.3
70°	154.9	189.0	232.3	237.0	227.7
72.5°	123.9	162.6	201.4	184.3	176.6
75°	94.5	137.9	158.0	142.5	137.9
77.5°	71.3	111.5	111.5	102.2	99.1
80°	49.6	85.2	74.3	65.1	60.4
82.5°	32.5	48.0	38.7	31.0	26.3
85°	17.0	18.6	10.8	9.3	7.7
87.5°	6.2	3.1	1.5	3.1	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)