

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: P312085

Luminaire Tested: **14FCZ2-35-UNV-L83050-RDP-CP250-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: P312085
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-CP250-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.250" POLYCARB 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: 1896.0 lumens
Efficiency: N/A
Efficacy: 64.5 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

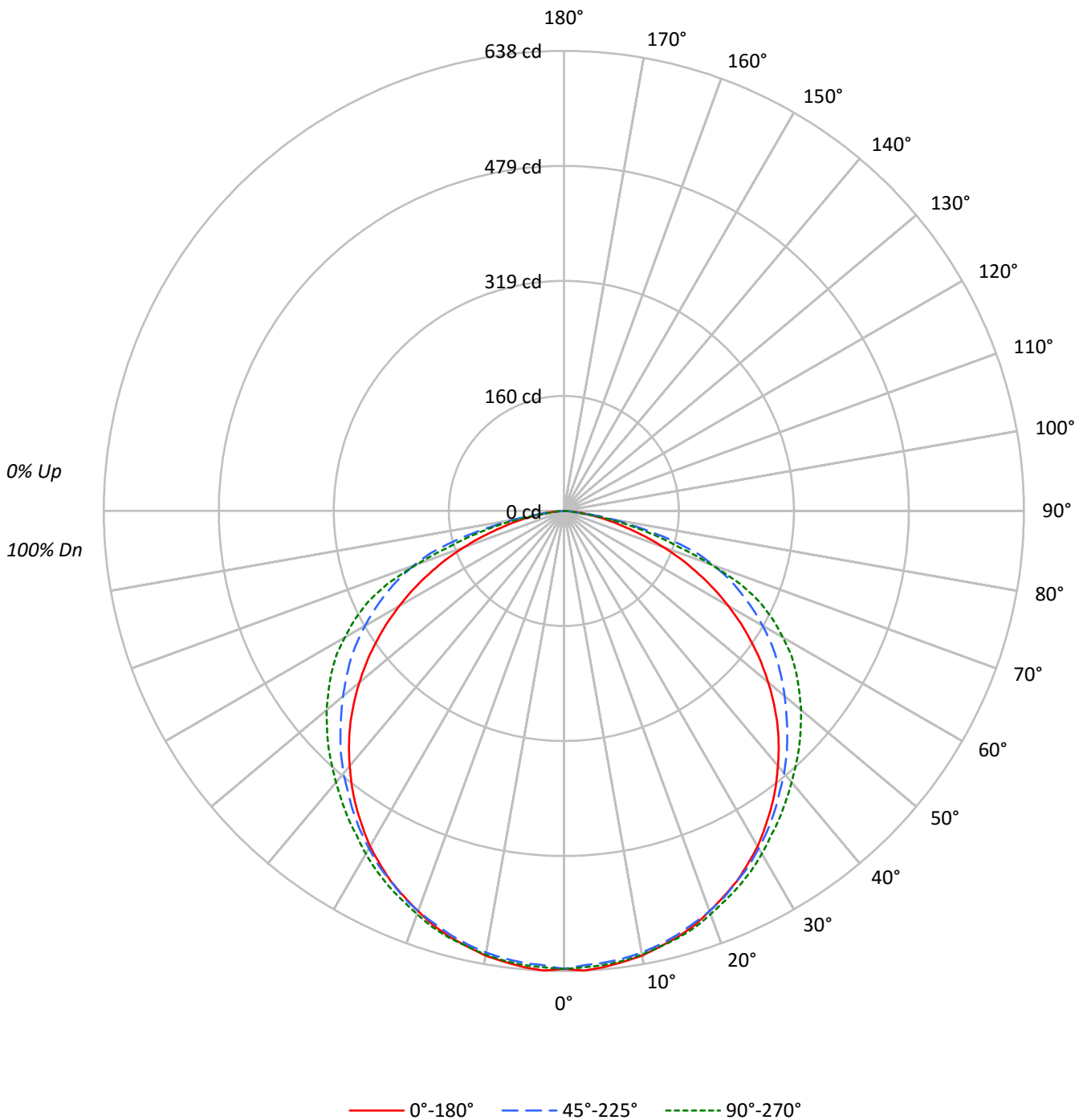
Input Watts (W): 29.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1709	1709	1709
5°	1715	1699	1707
10°	1711	1699	1707
15°	1703	1695	1707
20°	1691	1691	1704
25°	1683	1683	1705
30°	1670	1679	1707
35°	1648	1673	1712
40°	1622	1669	1726
45°	1594	1667	1757
50°	1549	1673	1797
55°	1493	1695	1847
60°	1418	1713	1888
65°	1310	1734	1913
70°	1164	1747	1712
75°	939	1570	1369
80°	735	1102	894
85°	503	321	228



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.1	3.2
10°-20°	172.4	9.1
20°-30°	262.6	13.8
30°-40°	319.8	16.9
40°-50°	339.3	17.9
50°-60°	320.2	16.9
60°-70°	258.6	13.6
70°-80°	140.3	7.4
80°-90°	22.7	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°	495.1	26.1
0°-40°	815.0	43.0
0°-60°	1474.5	77.8
0°-90°	1896.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1896.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	635	635	635	635	635	
5°	635	634	629	634	632	60
15°	611	610	608	613	613	172
25°	567	565	567	573	574	261
35°	502	505	509	520	521	314
45°	419	425	438	454	462	323
55°	318	332	361	385	394	284
65°	206	231	272	295	300	204
75°	90	132	151	136	132	99
85°	16	18	10	9	7	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	635.0	635.0	635.0	635.0	635.0
2.5°	638.0	635.0	630.6	635.0	633.5
5°	635.0	633.5	629.1	633.5	632.1
7.5°	630.6	630.6	626.1	629.1	629.1
10°	626.1	624.7	621.7	626.1	624.7
12.5°	618.7	617.3	615.8	620.2	618.7
15°	611.3	609.9	608.4	612.8	612.8
17.5°	602.5	601.0	599.5	605.4	605.4
20°	590.6	590.6	590.6	596.5	595.1
22.5°	578.8	578.8	580.3	586.2	584.7
25°	566.9	565.4	566.9	572.8	574.3
27.5°	552.1	553.6	555.1	561.0	562.5
30°	537.3	538.8	540.3	547.7	549.2
32.5°	519.6	522.5	525.5	534.4	534.4
35°	501.8	504.8	509.2	519.6	521.0
37.5°	482.6	485.5	491.4	503.3	506.2
40°	461.8	466.3	475.2	487.0	491.4
42.5°	441.1	447.0	457.4	470.7	476.6
45°	418.9	424.8	438.1	454.4	461.8
47.5°	395.2	402.6	418.9	439.6	445.5
50°	370.1	380.4	399.7	421.9	429.3
52.5°	344.9	356.7	380.4	404.1	411.5
55°	318.2	331.6	361.2	384.9	393.7
57.5°	291.6	306.4	340.5	365.6	374.5
60°	263.5	281.2	318.2	343.4	350.8
62.5°	235.4	256.1	296.0	321.2	327.1
65°	205.8	230.9	272.4	294.6	300.5
67.5°	177.6	207.2	248.7	265.0	265.0
70°	148.0	180.6	222.0	226.5	217.6
72.5°	118.4	155.4	192.4	176.1	168.7
75°	90.3	131.7	151.0	136.2	131.7
77.5°	68.1	106.6	106.6	97.7	94.7
80°	47.4	81.4	71.1	62.2	57.7
82.5°	31.1	45.9	37.0	29.6	25.2
85°	16.3	17.8	10.4	8.9	7.4
87.5°	5.9	3.0	1.5	3.0	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)