

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: P311871

Luminaire Tested: **14FCZ2-25-UNV-L83050-HRP-CA125-W2A-U-3500K**

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: P311871
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: 14FCZ2-25-UNV-L83050-HRP-CA125-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 3500K 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: 1772.0 lumens
Efficiency: N/A
Efficacy: 90.4 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

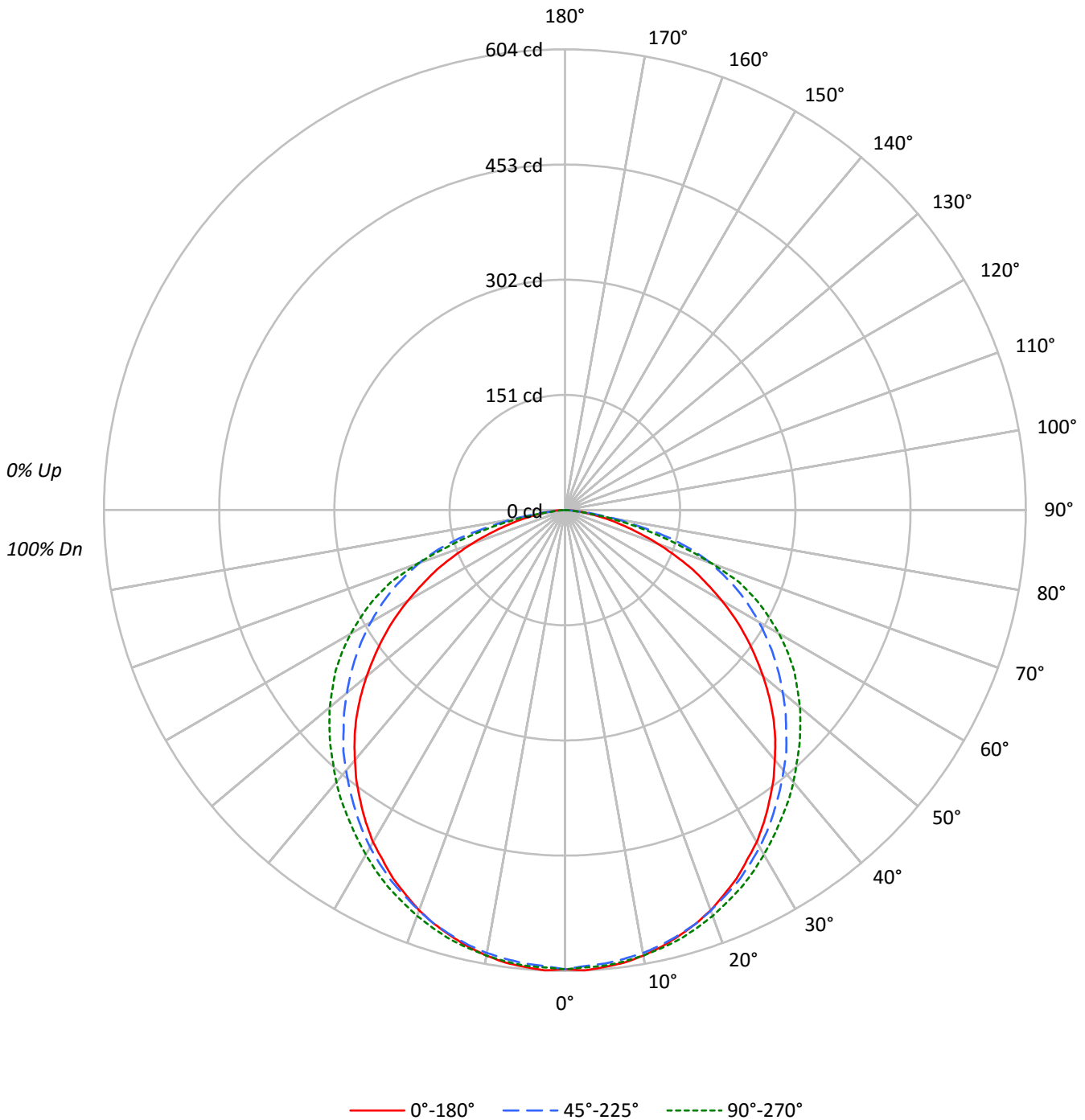
Input Watts (W): 19.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1619	1619	1619
5°	1624	1612	1620
10°	1620	1611	1620
15°	1610	1607	1622
20°	1599	1601	1621
25°	1582	1595	1621
30°	1562	1586	1620
35°	1534	1574	1623
40°	1503	1566	1636
45°	1472	1561	1654
50°	1420	1561	1684
55°	1359	1568	1720
60°	1278	1580	1742
65°	1178	1596	1753
70°	1026	1600	1614
75°	846	1489	1304
80°	665	1071	872
85°	516	414	207



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.0	3.2
10°-20°	163.5	9.2
20°-30°	248.3	14.0
30°-40°	300.8	17.0
40°-50°	317.0	17.9
50°-60°	295.9	16.7
60°-70°	236.5	13.3
70°-80°	130.1	7.3
80°-90°	23.0	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°	468.7	26.5
0°-40°	769.5	43.4
0°-60°	1382.4	78.0
0°-90°	1772.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1772.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	602	602	602	602	602	
5°	601	600	597	601	600	57
15°	578	578	577	582	582	163
25°	533	534	537	545	546	245
35°	467	471	479	492	494	292
45°	387	394	410	428	435	298
55°	290	304	334	358	367	259
65°	185	208	251	271	275	182
75°	81	116	143	129	125	88
85°	17	21	13	8	7	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	601.8	601.8	601.8	601.8	601.8
2.5°	604.0	602.3	598.4	601.8	600.1
5°	601.2	599.6	596.8	600.7	599.6
7.5°	598.4	596.2	593.4	597.9	596.8
10°	592.9	591.2	589.5	593.4	592.9
12.5°	586.2	585.6	583.9	588.4	587.9
15°	577.8	577.8	576.7	582.3	582.3
17.5°	568.9	568.3	568.9	575.0	574.5
20°	558.3	558.3	558.9	566.1	566.1
22.5°	545.5	546.1	547.7	556.6	556.1
25°	532.7	533.8	537.1	544.9	546.1
27.5°	517.1	519.9	523.8	533.2	534.4
30°	502.6	504.3	510.4	519.3	521.5
32.5°	485.3	488.7	495.4	505.4	508.2
35°	466.9	471.4	479.2	491.5	494.2
37.5°	448.5	452.4	463.0	475.9	480.9
40°	427.9	434.6	445.8	460.3	465.8
42.5°	407.9	414.6	429.6	444.6	449.7
45°	386.7	393.9	410.1	428.5	434.6
47.5°	363.3	371.7	392.3	411.8	418.5
50°	339.3	349.9	372.8	394.5	402.3
52.5°	314.3	327.6	353.8	376.7	383.9
55°	289.7	304.2	334.3	357.7	366.6
57.5°	264.7	280.3	314.3	341.0	346.0
60°	237.4	256.3	293.6	317.0	323.7
62.5°	210.6	232.4	272.5	294.8	300.3
65°	185.0	208.4	250.7	271.4	275.3
67.5°	157.1	185.0	226.8	245.7	246.8
70°	130.4	162.7	203.4	212.3	205.1
72.5°	104.2	138.7	176.1	168.8	162.7
75°	81.4	116.5	143.2	128.7	125.4
77.5°	60.2	95.3	102.5	94.7	88.6
80°	42.9	75.2	69.1	59.1	56.3
82.5°	29.5	47.4	37.9	29.5	25.6
85°	16.7	21.2	13.4	8.4	6.7
87.5°	7.2	5.0	2.8	2.2	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)