

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: P311878

Luminaire Tested: **14FCZ2-25-UNV-L83050-HRP-CP125-W2A-U-4500K**

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: P311878
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-CP125-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB SHEET
Light Source: (168) 4500K 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: 1842.0 lumens
Efficiency: N/A
Efficacy: 89.4 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

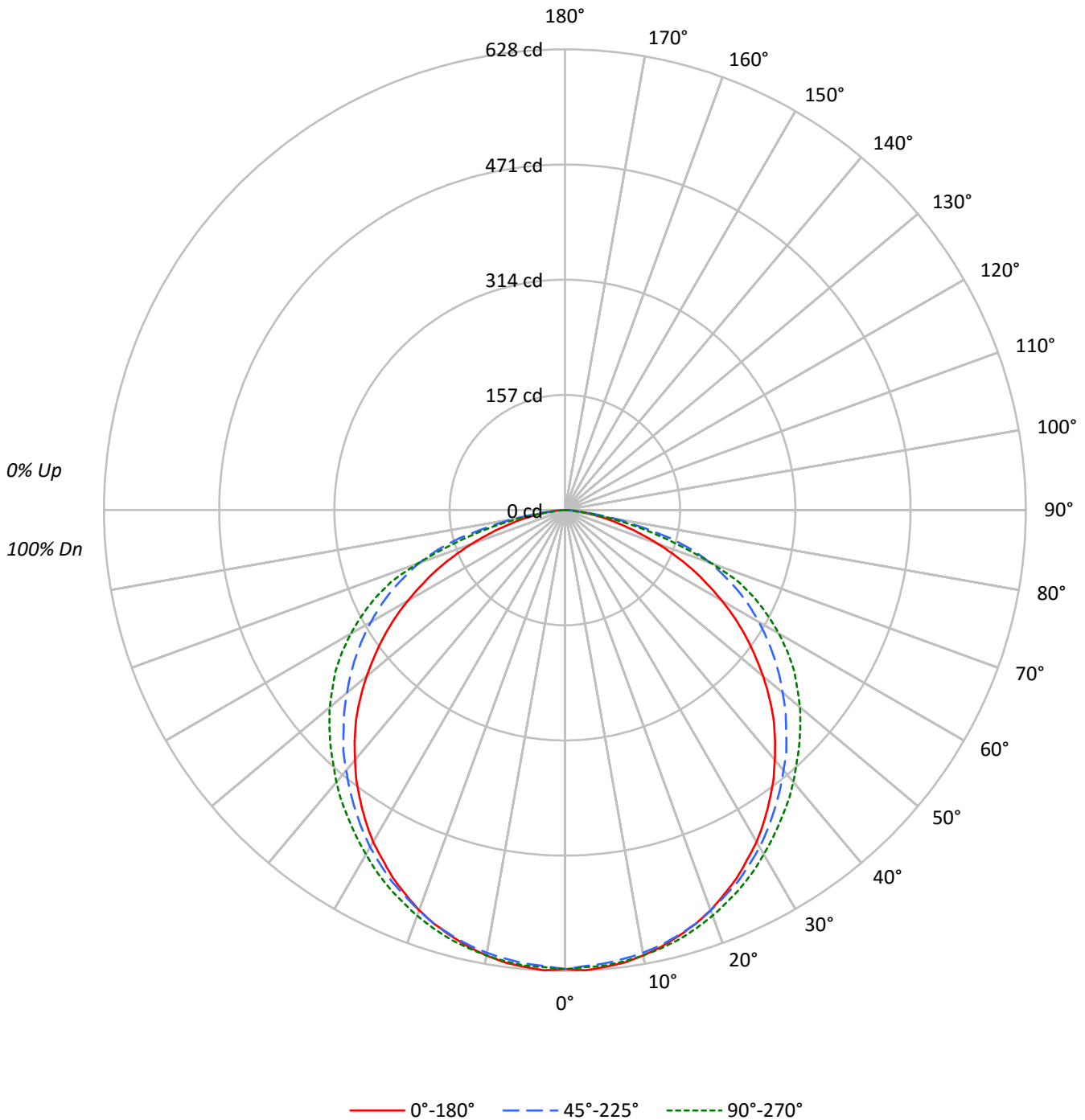
Input Watts (W): 20.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1683	1683	1683
5°	1688	1676	1683
10°	1684	1674	1684
15°	1673	1670	1686
20°	1662	1664	1685
25°	1644	1658	1685
30°	1624	1649	1684
35°	1595	1636	1688
40°	1563	1628	1701
45°	1530	1622	1719
50°	1477	1622	1751
55°	1413	1630	1788
60°	1328	1643	1811
65°	1224	1659	1822
70°	1066	1663	1677
75°	880	1548	1355
80°	691	1113	907
85°	537	429	216



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.2	3.2
10°-20°	169.9	9.2
20°-30°	258.1	14.0
30°-40°	312.7	17.0
40°-50°	329.5	17.9
50°-60°	307.6	16.7
60°-70°	245.8	13.3
70°-80°	135.3	7.3
80°-90°	23.9	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°	487.2	26.5
0°-40°	799.9	43.4
0°-60°	1437.0	78.0
0°-90°	1842.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1842.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	626	626	626	626	626	
5°	625	623	620	624	623	59
15°	601	601	600	605	605	170
25°	554	555	558	566	568	255
35°	485	490	498	511	514	304
45°	402	410	426	445	452	309
55°	301	316	348	372	381	269
65°	192	217	261	282	286	189
75°	85	121	149	134	130	91
85°	17	22	14	9	7	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	625.6	625.6	625.6	625.6	625.6
2.5°	627.9	626.1	622.1	625.6	623.8
5°	625.0	623.2	620.3	624.4	623.2
7.5°	622.1	619.8	616.9	621.5	620.3
10°	616.3	614.5	612.8	616.9	616.3
12.5°	609.3	608.8	607.0	611.7	611.1
15°	600.6	600.6	599.5	605.3	605.3
17.5°	591.4	590.8	591.4	597.8	597.2
20°	580.4	580.4	581.0	588.5	588.5
22.5°	567.1	567.6	569.4	578.6	578.1
25°	553.7	554.9	558.4	566.5	567.6
27.5°	537.5	540.4	544.5	554.3	555.5
30°	522.5	524.2	530.6	539.8	542.1
32.5°	504.5	508.0	514.9	525.3	528.2
35°	485.4	490.0	498.1	510.9	513.8
37.5°	466.3	470.3	481.3	494.6	499.9
40°	444.8	451.8	463.4	478.4	484.2
42.5°	424.0	430.9	446.6	462.2	467.4
45°	402.0	409.5	426.3	445.4	451.8
47.5°	377.6	386.3	407.8	428.0	435.0
50°	352.7	363.7	387.5	410.1	418.2
52.5°	326.7	340.6	367.8	391.5	399.1
55°	301.2	316.3	347.5	371.9	381.1
57.5°	275.1	291.3	326.7	354.5	359.7
60°	246.7	266.4	305.2	329.6	336.5
62.5°	218.9	241.5	283.2	306.4	312.2
65°	192.3	216.6	260.6	282.1	286.1
67.5°	163.3	192.3	235.7	255.4	256.6
70°	135.5	169.1	211.4	220.7	213.2
72.5°	108.3	144.2	183.0	175.5	169.1
75°	84.6	121.1	148.9	133.8	130.3
77.5°	62.6	99.0	106.6	98.5	92.1
80°	44.6	78.2	71.8	61.4	58.5
82.5°	30.7	49.2	39.4	30.7	26.6
85°	17.4	22.0	13.9	8.7	7.0
87.5°	7.5	5.2	2.9	2.3	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)