

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: P311865

Luminaire Tested: **14FCZ2-25-UNV-L83050-HRP-CA08-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: P311865
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-CA08-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" 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: 1680.0 lumens
Efficiency: N/A
Efficacy: 85.7 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

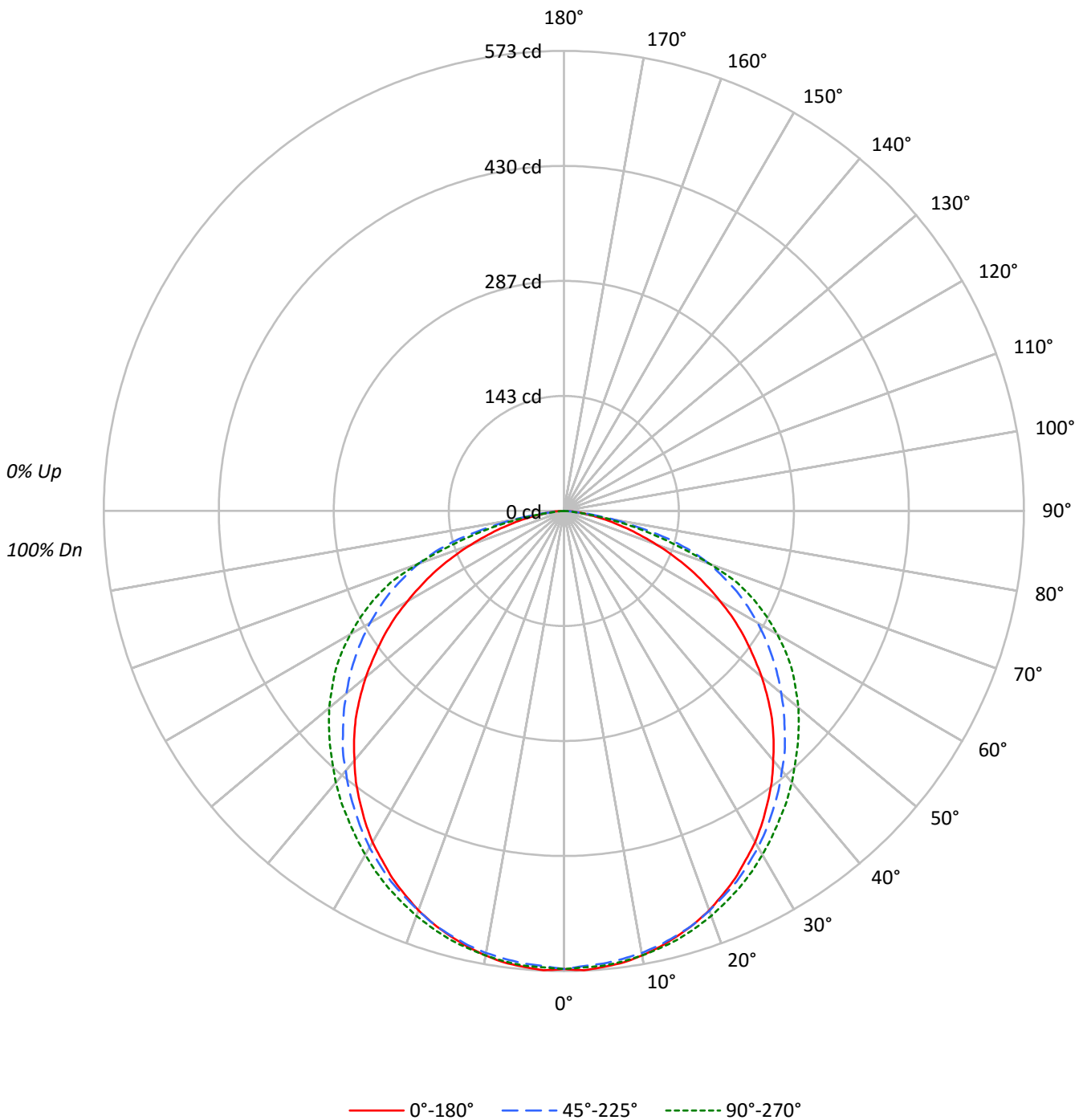
Input Watts (W): 19.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1535	1535	1535
5°	1540	1528	1535
10°	1536	1527	1536
15°	1526	1523	1538
20°	1516	1517	1537
25°	1499	1512	1537
30°	1481	1504	1537
35°	1454	1492	1539
40°	1425	1485	1551
45°	1395	1480	1568
50°	1347	1479	1597
55°	1289	1487	1631
60°	1211	1498	1652
65°	1117	1514	1662
70°	972	1517	1530
75°	802	1412	1236
80°	631	1015	828
85°	488	392	195



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.0	3.2
10°-20°	155.0	9.2
20°-30°	235.4	14.0
30°-40°	285.2	17.0
40°-50°	300.5	17.9
50°-60°	280.6	16.7
60°-70°	224.2	13.3
70°-80°	123.4	7.3
80°-90°	21.8	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°	444.4	26.5
0°-40°	729.6	43.4
0°-60°	1310.6	78.0
0°-90°	1680.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1680.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	570	570	570	570	570	
5°	570	568	566	570	568	54
15°	548	548	547	552	552	155
25°	505	506	509	517	518	232
35°	443	447	454	466	469	277
45°	367	374	389	406	412	282
55°	275	288	317	339	348	245
65°	175	198	238	257	261	173
75°	77	110	136	122	119	83
85°	16	20	13	8	6	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	570.5	570.5	570.5	570.5	570.5
2.5°	572.6	571.1	567.4	570.5	569.0
5°	570.0	568.4	565.8	569.5	568.4
7.5°	567.4	565.3	562.6	566.8	565.8
10°	562.1	560.5	558.9	562.6	562.1
12.5°	555.7	555.2	553.6	557.9	557.3
15°	547.8	547.8	546.8	552.0	552.0
17.5°	539.4	538.8	539.4	545.2	544.7
20°	529.3	529.3	529.9	536.7	536.7
22.5°	517.2	517.7	519.3	527.7	527.2
25°	505.0	506.1	509.3	516.7	517.7
27.5°	490.2	492.9	496.6	505.6	506.6
30°	476.5	478.1	483.9	492.4	494.5
32.5°	460.1	463.3	469.6	479.1	481.8
35°	442.7	446.9	454.3	465.9	468.6
37.5°	425.3	429.0	439.0	451.1	455.9
40°	405.7	412.1	422.6	436.4	441.6
42.5°	386.7	393.0	407.3	421.6	426.3
45°	366.6	373.5	388.8	406.2	412.1
47.5°	344.4	352.4	371.9	390.4	396.7
50°	321.7	331.8	353.4	374.0	381.4
52.5°	297.9	310.6	335.5	357.1	364.0
55°	274.7	288.4	317.0	339.2	347.6
57.5°	250.9	265.7	297.9	323.3	328.1
60°	225.0	243.0	278.4	300.6	306.9
62.5°	199.7	220.3	258.3	279.5	284.7
65°	175.4	197.6	237.7	257.3	261.0
67.5°	149.0	175.4	215.0	233.0	234.0
70°	123.6	154.3	192.8	201.3	194.4
72.5°	98.8	131.5	166.9	160.1	154.3
75°	77.1	110.4	135.8	122.0	118.9
77.5°	57.1	90.3	97.2	89.8	84.0
80°	40.7	71.3	65.5	56.0	53.4
82.5°	28.0	44.9	35.9	28.0	24.3
85°	15.8	20.1	12.7	7.9	6.3
87.5°	6.9	4.8	2.6	2.1	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)