

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: P311848

Luminaire Tested: **14FCZ2-20-UNV-L83050-HRP-CA125-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: P311848
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: 14FCZ2-20-UNV-L83050-HRP-CA125-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC 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: 1610.0 lumens
Efficiency: N/A
Efficacy: 93.1 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

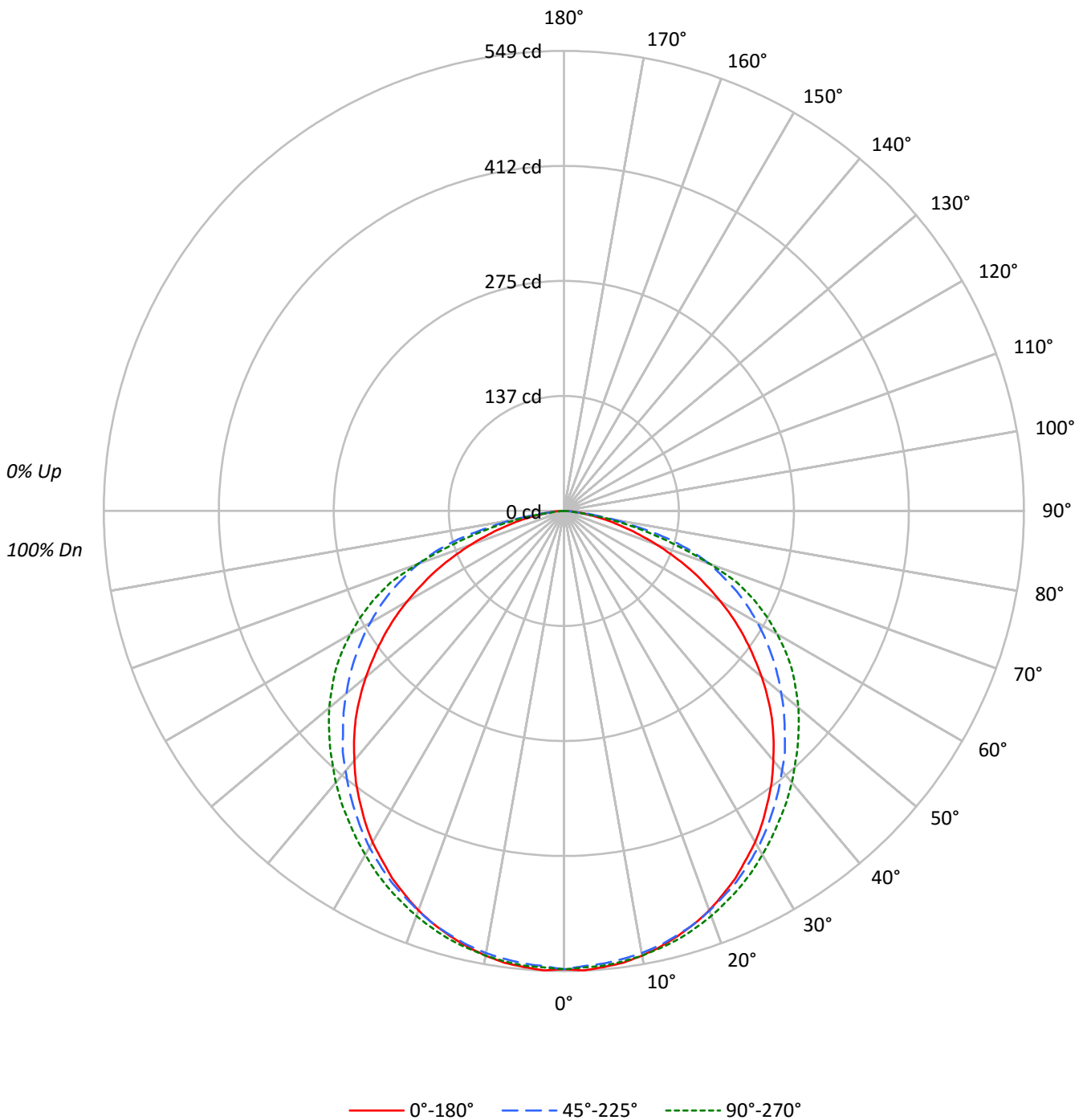
Input Watts (W): 17.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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CATALOG NUMBER: 14FC22-20-UNV-L83050-HRP-CA125-W2A-U-4500K

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°	1471	1471	1471
5°	1476	1465	1471
10°	1472	1464	1472
15°	1463	1460	1474
20°	1453	1454	1473
25°	1437	1449	1473
30°	1419	1441	1473
35°	1394	1430	1475
40°	1366	1423	1487
45°	1337	1418	1503
50°	1291	1418	1530
55°	1235	1425	1563
60°	1161	1436	1583
65°	1070	1450	1592
70°	932	1454	1466
75°	768	1353	1184
80°	604	973	792
85°	469	377	188



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.8	3.2
10°-20°	148.5	9.2
20°-30°	225.6	14.0
30°-40°	273.3	17.0
40°-50°	288.0	17.9
50°-60°	268.9	16.7
60°-70°	214.9	13.3
70°-80°	118.2	7.3
80°-90°	20.9	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°	425.9	26.5
0°-40°	699.2	43.4
0°-60°	1256.0	78.0
0°-90°	1610.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1610.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	547	547	547	547	547	
5°	546	545	542	546	545	52
15°	525	525	524	529	529	148
25°	484	485	488	495	496	223
35°	424	428	435	446	449	265
45°	351	358	373	389	395	270
55°	263	276	304	325	333	235
65°	168	189	228	247	250	166
75°	74	106	130	117	114	80
85°	15	19	12	8	6	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	546.8	546.8	546.8	546.8	546.8
2.5°	548.8	547.3	543.7	546.8	545.2
5°	546.3	544.7	542.2	545.8	544.7
7.5°	543.7	541.7	539.2	543.2	542.2
10°	538.7	537.1	535.6	539.2	538.7
12.5°	532.6	532.1	530.6	534.6	534.1
15°	525.0	525.0	524.0	529.0	529.0
17.5°	516.9	516.4	516.9	522.5	522.0
20°	507.3	507.3	507.8	514.4	514.4
22.5°	495.6	496.1	497.7	505.8	505.3
25°	484.0	485.0	488.0	495.1	496.1
27.5°	469.8	472.3	475.9	484.5	485.5
30°	456.6	458.2	463.7	471.8	473.9
32.5°	441.0	444.0	450.1	459.2	461.7
35°	424.2	428.3	435.4	446.5	449.1
37.5°	407.5	411.1	420.7	432.3	436.9
40°	388.8	394.9	405.0	418.2	423.2
42.5°	370.6	376.7	390.3	404.0	408.6
45°	351.3	357.9	372.6	389.3	394.9
47.5°	330.1	337.7	356.4	374.1	380.2
50°	308.3	317.9	338.7	358.4	365.5
52.5°	285.5	297.7	321.5	342.2	348.8
55°	263.3	276.4	303.8	325.0	333.1
57.5°	240.5	254.7	285.5	309.8	314.4
60°	215.7	232.9	266.8	288.1	294.1
62.5°	191.4	211.1	247.6	267.8	272.9
65°	168.1	189.3	227.8	246.6	250.1
67.5°	142.8	168.1	206.0	223.3	224.3
70°	118.5	147.8	184.8	192.9	186.3
72.5°	94.7	126.1	160.0	153.4	147.8
75°	73.9	105.8	130.1	116.9	113.9
77.5°	54.7	86.6	93.2	86.1	80.5
80°	39.0	68.3	62.8	53.7	51.1
82.5°	26.8	43.0	34.4	26.8	23.3
85°	15.2	19.2	12.2	7.6	6.1
87.5°	6.6	4.6	2.5	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)