

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: P311853

Luminaire Tested: **14FCZ2-20-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: P311853
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-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: 1578.0 lumens
Efficiency: N/A
Efficacy: 91.2 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

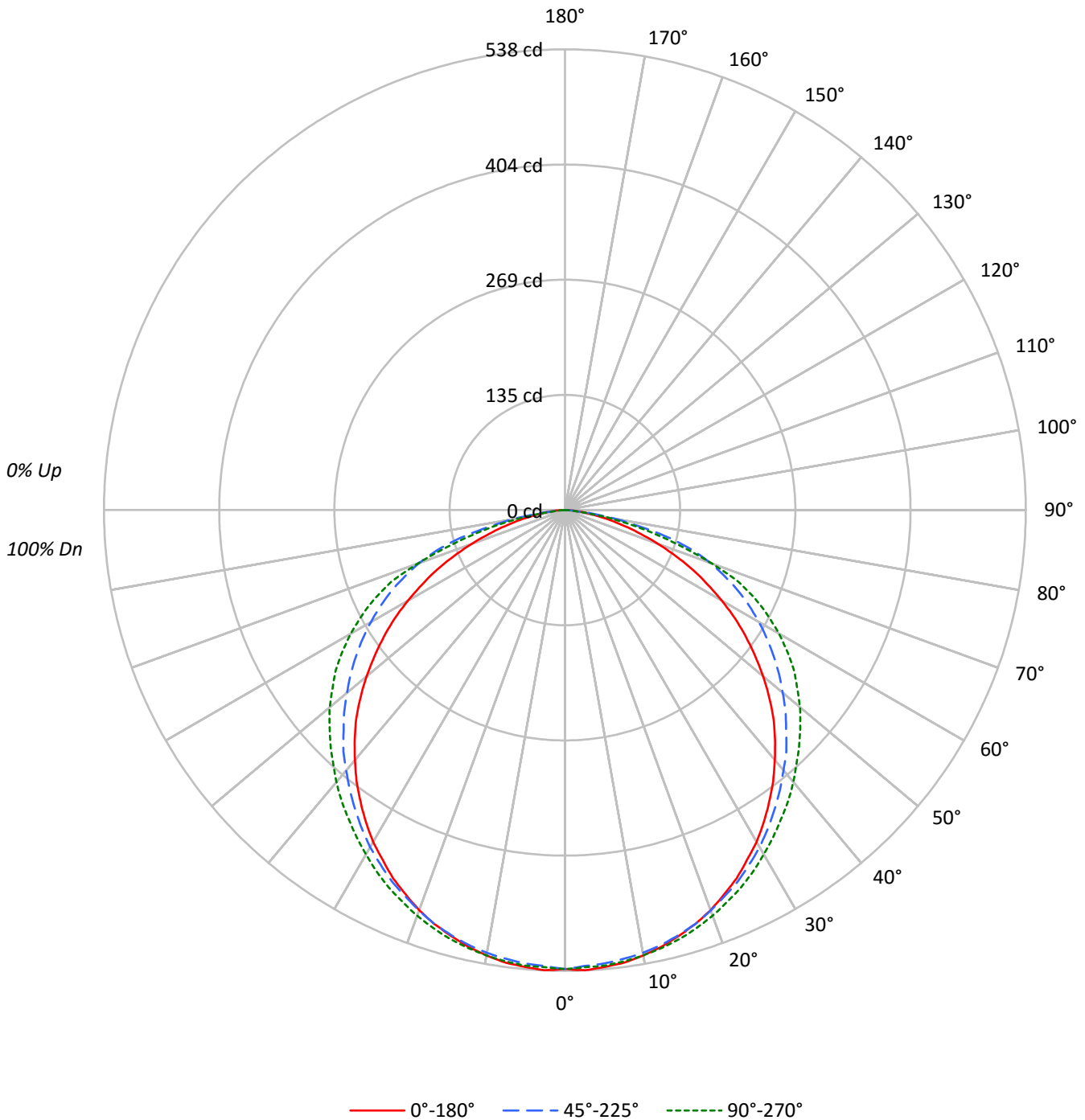
Input Watts (W): 17.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1442	1442	1442
5°	1446	1435	1442
10°	1443	1435	1443
15°	1434	1431	1444
20°	1424	1425	1444
25°	1409	1420	1444
30°	1391	1412	1443
35°	1366	1402	1446
40°	1339	1395	1457
45°	1311	1390	1473
50°	1265	1390	1500
55°	1210	1397	1532
60°	1138	1407	1552
65°	1049	1422	1561
70°	913	1425	1437
75°	753	1326	1160
80°	592	953	776
85°	460	367	185



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.7	3.2
10°-20°	145.6	9.2
20°-30°	221.1	14.0
30°-40°	267.9	17.0
40°-50°	282.3	17.9
50°-60°	263.5	16.7
60°-70°	210.6	13.3
70°-80°	115.9	7.3
80°-90°	20.5	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°	417.4	26.5
0°-40°	685.3	43.4
0°-60°	1231.1	78.0
0°-90°	1578.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1578.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	536	536	536	536	536	
5°	535	534	531	535	534	51
15°	515	515	514	518	518	145
25°	474	475	478	485	486	218
35°	416	420	427	438	440	260
45°	344	351	365	382	387	265
55°	258	271	298	319	326	230
65°	165	186	223	242	245	162
75°	72	104	128	115	112	78
85°	15	19	12	7	6	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	535.9	535.9	535.9	535.9	535.9
2.5°	537.9	536.4	532.9	535.9	534.4
5°	535.4	533.9	531.4	534.9	533.9
7.5°	532.9	530.9	528.5	532.4	531.4
10°	528.0	526.5	525.0	528.5	528.0
12.5°	522.0	521.5	520.0	524.0	523.5
15°	514.6	514.6	513.6	518.5	518.5
17.5°	506.6	506.1	506.6	512.1	511.6
20°	497.2	497.2	497.7	504.1	504.1
22.5°	485.8	486.3	487.8	495.7	495.2
25°	474.4	475.4	478.3	485.3	486.3
27.5°	460.5	463.0	466.4	474.9	475.9
30°	447.6	449.1	454.5	462.5	464.4
32.5°	432.2	435.2	441.1	450.1	452.5
35°	415.8	419.8	426.7	437.6	440.1
37.5°	399.4	402.9	412.3	423.8	428.2
40°	381.1	387.0	397.0	409.9	414.8
42.5°	363.2	369.2	382.6	396.0	400.4
45°	344.4	350.8	365.2	381.6	387.0
47.5°	323.5	331.0	349.3	366.7	372.6
50°	302.2	311.6	332.0	351.3	358.3
52.5°	279.9	291.8	315.1	335.4	341.9
55°	258.0	270.9	297.7	318.6	326.5
57.5°	235.7	249.6	279.9	303.7	308.1
60°	211.4	228.3	261.5	282.3	288.3
62.5°	187.6	206.9	242.6	262.5	267.5
65°	164.7	185.6	223.3	241.6	245.1
67.5°	139.9	164.7	202.0	218.8	219.8
70°	116.1	144.9	181.1	189.1	182.6
72.5°	92.8	123.6	156.8	150.3	144.9
75°	72.4	103.7	127.5	114.6	111.6
77.5°	53.6	84.9	91.3	84.4	78.9
80°	38.2	67.0	61.5	52.6	50.1
82.5°	26.3	42.2	33.7	26.3	22.8
85°	14.9	18.9	11.9	7.4	6.0
87.5°	6.5	4.5	2.5	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)