

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: P312447

Luminaire Tested: **22FCZ2-20HE-UNV-L83050-HRP-CA125-W2A-U-4000K**

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: P312447
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-20HE-UNV-L83050-HRP-CA125-W2A-U-4000K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 4000K 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: 1639.0 lumens
Efficiency: N/A
Efficacy: 95.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

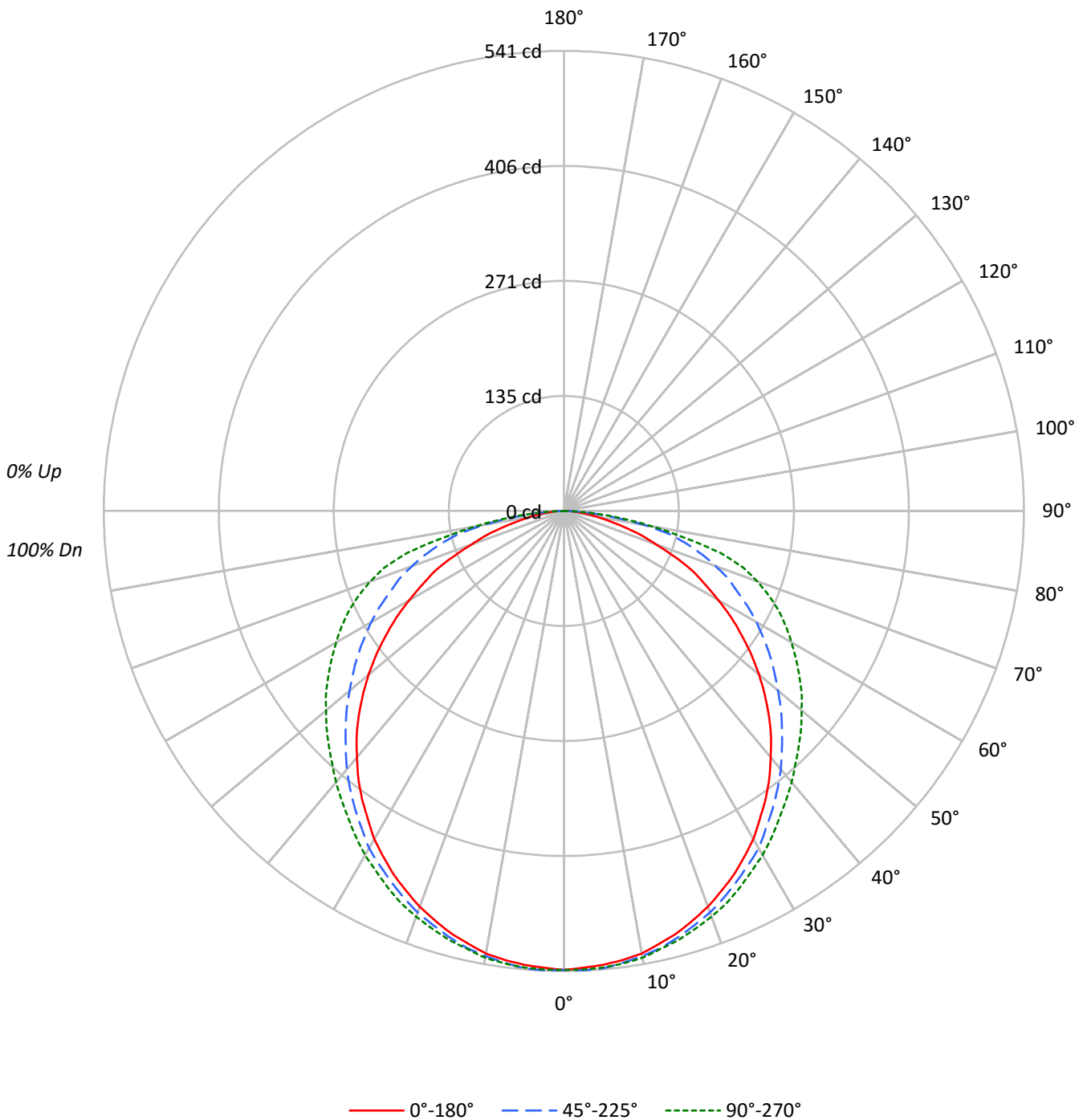
Input Watts (W): 17.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1452	1452	1452
5°	1447	1458	1455
10°	1444	1452	1458
15°	1432	1446	1455
20°	1418	1439	1454
25°	1403	1428	1452
30°	1385	1423	1452
35°	1359	1406	1450
40°	1329	1395	1464
45°	1298	1381	1487
50°	1255	1376	1528
55°	1198	1387	1586
60°	1130	1408	1664
65°	1067	1435	1778
70°	911	1496	1903
75°	763	1559	1978
80°	625	1506	1650
85°	543	1118	1213



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.2	3.1
10°-20°	146.3	8.9
20°-30°	221.7	13.5
30°-40°	267.8	16.3
40°-50°	281.3	17.2
50°-60°	264.7	16.2
60°-70°	220.7	13.5
70°-80°	146.2	8.9
80°-90°	39.0	2.4
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°	419.2	25.6
0°-40°	687.0	41.9
0°-60°	1233.0	75.2
0°-90°	1639.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1639.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	540	540	540	540	540	
5°	536	537	540	540	539	51
15°	514	516	519	521	522	145
25°	472	476	481	487	489	218
35°	414	418	428	437	442	259
45°	341	346	363	382	391	263
55°	255	267	296	326	338	228
65°	168	182	225	263	279	163
75°	73	102	150	181	190	80
85°	18	27	36	39	39	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	539.7	539.7	539.7	539.7	539.7
2.5°	537.6	538.7	540.7	540.7	539.7
5°	535.6	536.6	539.7	539.7	538.7
7.5°	532.5	533.5	535.6	537.6	536.6
10°	528.3	529.4	531.4	533.5	533.5
12.5°	521.1	522.1	526.3	527.3	527.3
15°	513.9	515.9	519.0	521.1	522.1
17.5°	504.6	506.6	510.8	514.9	514.9
20°	495.2	497.3	502.5	506.6	507.7
22.5°	483.9	487.0	492.1	497.3	499.4
25°	472.5	475.6	480.8	487.0	489.0
27.5°	459.1	462.2	469.4	476.6	477.7
30°	445.6	448.7	458.0	464.2	467.3
32.5°	429.1	433.2	442.5	451.8	454.9
35°	413.6	417.7	428.0	437.3	441.5
37.5°	397.0	401.2	412.5	423.9	429.1
40°	378.4	383.6	397.0	409.4	416.7
42.5°	360.8	366.0	379.4	396.0	403.2
45°	341.2	346.4	362.9	381.5	390.8
47.5°	320.5	326.7	346.4	369.1	378.4
50°	299.8	307.1	328.8	354.6	365.0
52.5°	278.1	287.4	312.2	340.2	352.6
55°	255.4	266.8	295.7	325.7	338.1
57.5°	233.7	244.0	278.1	310.2	323.6
60°	209.9	223.3	261.6	294.7	309.1
62.5°	187.1	201.6	244.0	279.2	294.7
65°	167.5	182.0	225.4	262.6	279.2
67.5°	141.6	161.3	209.9	245.0	261.6
70°	115.8	142.7	190.2	226.4	241.9
72.5°	96.2	122.0	170.6	206.8	221.3
75°	73.4	102.4	149.9	180.9	190.2
77.5°	54.8	84.8	128.2	143.7	144.7
80°	40.3	65.1	97.2	102.4	106.5
82.5°	27.9	45.5	63.1	69.3	71.3
85°	17.6	26.9	36.2	39.3	39.3
87.5°	9.3	10.3	12.4	12.4	12.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)