

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: P308076

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-HRP-CA125-W2A-U-5700K**

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: P308076
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-L82765-HRP-CA125-W2A-U-5700K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" 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: 1570.0 lumens
Efficiency: N/A
Efficacy: 91.3 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

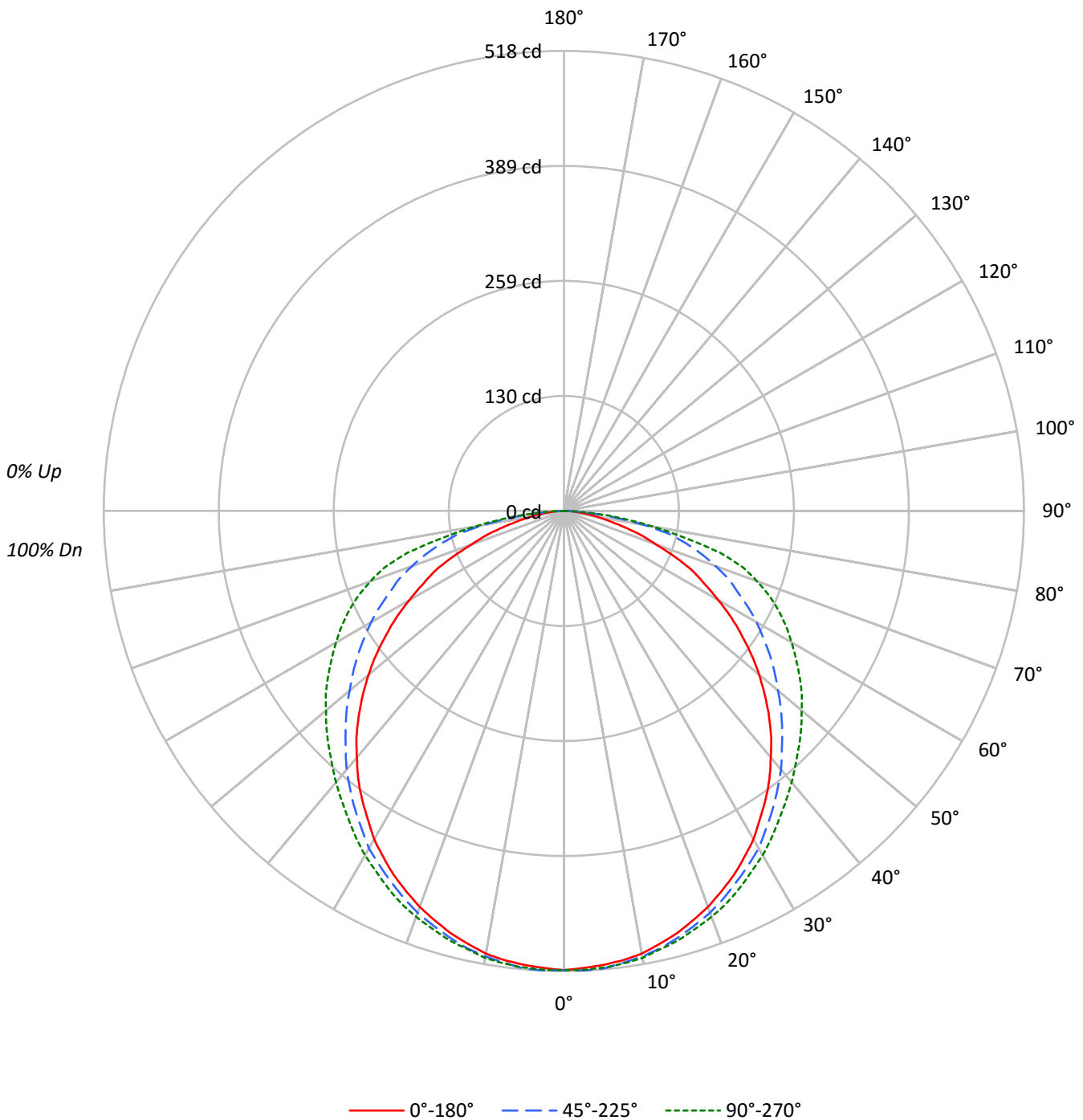
Input Watts (W): 17.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1391	1391	1391
5°	1386	1397	1394
10°	1383	1391	1396
15°	1371	1385	1393
20°	1359	1378	1393
25°	1344	1367	1391
30°	1326	1363	1391
35°	1302	1347	1389
40°	1273	1336	1402
45°	1244	1323	1425
50°	1202	1318	1464
55°	1148	1329	1520
60°	1082	1349	1594
65°	1021	1375	1703
70°	873	1434	1824
75°	731	1493	1894
80°	598	1443	1581
85°	519	1071	1161



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.0	3.1
10°-20°	140.2	8.9
20°-30°	212.4	13.5
30°-40°	256.5	16.3
40°-50°	269.5	17.2
50°-60°	253.6	16.2
60°-70°	211.4	13.5
70°-80°	140.1	8.9
80°-90°	37.3	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°	401.6	25.6
0°-40°	658.1	41.9
0°-60°	1181.1	75.2
0°-90°	1570.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1570.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	517	517	517	517	517	
5°	513	514	517	517	516	49
15°	492	494	497	499	500	139
25°	453	456	460	466	468	208
35°	396	400	410	419	423	248
45°	327	332	348	366	374	252
55°	245	256	283	312	324	219
65°	160	174	216	252	267	156
75°	70	98	144	173	182	76
85°	17	26	35	38	38	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	517.0	517.0	517.0	517.0	517.0
2.5°	515.0	516.0	518.0	518.0	517.0
5°	513.0	514.0	517.0	517.0	516.0
7.5°	510.1	511.0	513.0	515.0	514.0
10°	506.1	507.1	509.1	511.0	511.0
12.5°	499.2	500.1	504.1	505.1	505.1
15°	492.2	494.2	497.2	499.2	500.1
17.5°	483.3	485.3	489.3	493.2	493.2
20°	474.4	476.4	481.3	485.3	486.3
22.5°	463.5	466.5	471.4	476.4	478.4
25°	452.6	455.6	460.5	466.5	468.5
27.5°	439.7	442.7	449.6	456.6	457.6
30°	426.9	429.8	438.7	444.7	447.7
32.5°	411.0	415.0	423.9	432.8	435.8
35°	396.2	400.1	410.0	418.9	422.9
37.5°	380.3	384.3	395.2	406.1	411.0
40°	362.5	367.4	380.3	392.2	399.1
42.5°	345.6	350.6	363.5	379.3	386.3
45°	326.8	331.8	347.6	365.5	374.4
47.5°	307.0	313.0	331.8	353.6	362.5
50°	287.2	294.1	314.9	339.7	349.6
52.5°	266.4	275.3	299.1	325.8	337.7
55°	244.6	255.5	283.3	312.0	323.9
57.5°	223.8	233.7	266.4	297.1	310.0
60°	201.0	213.9	250.6	282.3	296.1
62.5°	179.3	193.1	233.7	267.4	282.3
65°	160.4	174.3	215.9	251.6	267.4
67.5°	135.7	154.5	201.0	234.7	250.6
70°	110.9	136.7	182.2	216.9	231.8
72.5°	92.1	116.9	163.4	198.1	211.9
75°	70.3	98.0	143.6	173.3	182.2
77.5°	52.5	81.2	122.8	137.7	138.7
80°	38.6	62.4	93.1	98.0	102.0
82.5°	26.7	43.6	60.4	66.4	68.3
85°	16.8	25.8	34.7	37.6	37.6
87.5°	8.9	9.9	11.9	11.9	11.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)