

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: P308066

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-HRP-CA08-W2A-U-5500K**

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: P308066
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-CA08-W2A-U-5500K
Description: 2'X2' 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: 1572.0 lumens
Efficiency: N/A
Efficacy: 91.4 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

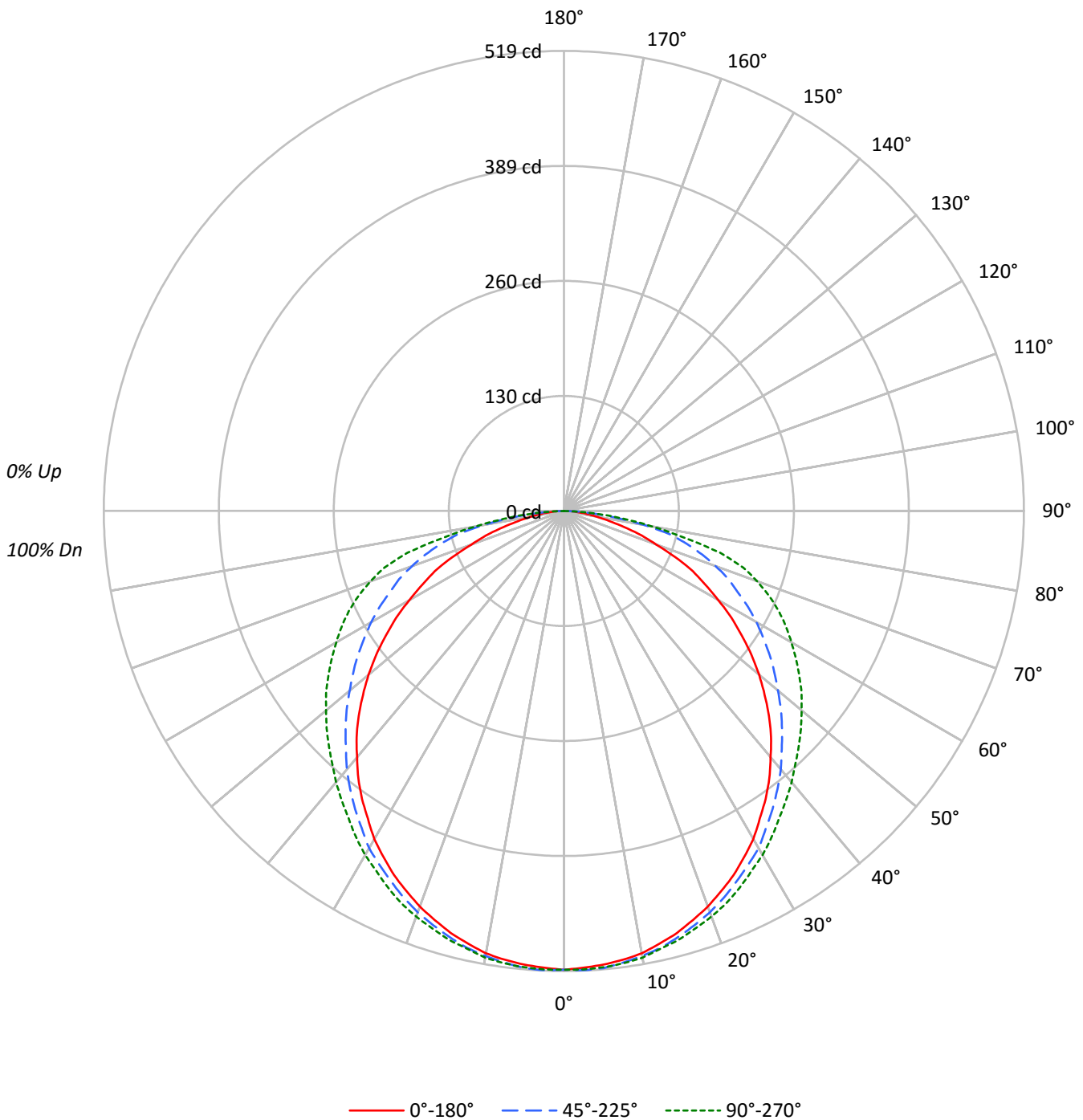
Input Watts (W): 17.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1393	1393	1393
5°	1388	1398	1396
10°	1385	1393	1398
15°	1373	1387	1395
20°	1360	1380	1394
25°	1346	1369	1393
30°	1328	1365	1393
35°	1303	1349	1391
40°	1275	1338	1404
45°	1245	1325	1426
50°	1204	1320	1466
55°	1149	1331	1521
60°	1083	1350	1596
65°	1023	1377	1705
70°	874	1436	1825
75°	732	1495	1897
80°	600	1444	1582
85°	522	1071	1164



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.1	3.1
10°-20°	140.3	8.9
20°-30°	212.7	13.5
30°-40°	256.8	16.3
40°-50°	269.8	17.2
50°-60°	253.9	16.2
60°-70°	211.7	13.5
70°-80°	140.3	8.9
80°-90°	37.4	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°	402.1	25.6
0°-40°	658.9	41.9
0°-60°	1182.6	75.2
0°-90°	1572.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1572.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	518	518	518	518	518	
5°	514	515	518	518	517	49
15°	493	495	498	500	501	139
25°	453	456	461	467	469	209
35°	397	401	410	420	423	248
45°	327	332	348	366	375	252
55°	245	256	284	312	324	219
65°	161	174	216	252	268	156
75°	70	98	144	174	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°	517.6	517.6	517.6	517.6	517.6
2.5°	515.7	516.7	518.6	518.6	517.6
5°	513.7	514.7	517.6	517.6	516.7
7.5°	510.7	511.7	513.7	515.7	514.7
10°	506.7	507.7	509.7	511.7	511.7
12.5°	499.8	500.8	504.8	505.7	505.7
15°	492.9	494.8	497.8	499.8	500.8
17.5°	483.9	485.9	489.9	493.8	493.8
20°	475.0	477.0	481.9	485.9	486.9
22.5°	464.1	467.1	472.0	477.0	479.0
25°	453.2	456.2	461.1	467.1	469.1
27.5°	440.3	443.3	450.2	457.2	458.1
30°	427.4	430.4	439.3	445.3	448.2
32.5°	411.5	415.5	424.4	433.4	436.3
35°	396.7	400.6	410.5	419.5	423.4
37.5°	380.8	384.8	395.7	406.6	411.5
40°	362.9	367.9	380.8	392.7	399.6
42.5°	346.1	351.0	363.9	379.8	386.7
45°	327.2	332.2	348.1	365.9	374.8
47.5°	307.4	313.4	332.2	354.0	362.9
50°	287.6	294.5	315.3	340.1	350.1
52.5°	266.8	275.7	299.5	326.3	338.2
55°	244.9	255.8	283.6	312.4	324.3
57.5°	224.1	234.0	266.8	297.5	310.4
60°	201.3	214.2	250.9	282.6	296.5
62.5°	179.5	193.4	234.0	267.7	282.6
65°	160.6	174.5	216.2	251.9	267.7
67.5°	135.9	154.7	201.3	235.0	250.9
70°	111.1	136.8	182.5	217.2	232.0
72.5°	92.2	117.0	163.6	198.3	212.2
75°	70.4	98.2	143.8	173.5	182.5
77.5°	52.6	81.3	123.0	137.8	138.8
80°	38.7	62.5	93.2	98.2	102.1
82.5°	26.8	43.6	60.5	66.4	68.4
85°	16.9	25.8	34.7	37.7	37.7
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)