

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: P308609

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-CA125-W2A-U-2700K**

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: P308609
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)
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-CA125-W2A-U-2700K
Description: 2'X2' TROFFER LED MODULE, RIBBED 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: 1779.0 lumens
Efficiency: N/A
Efficacy: 106.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

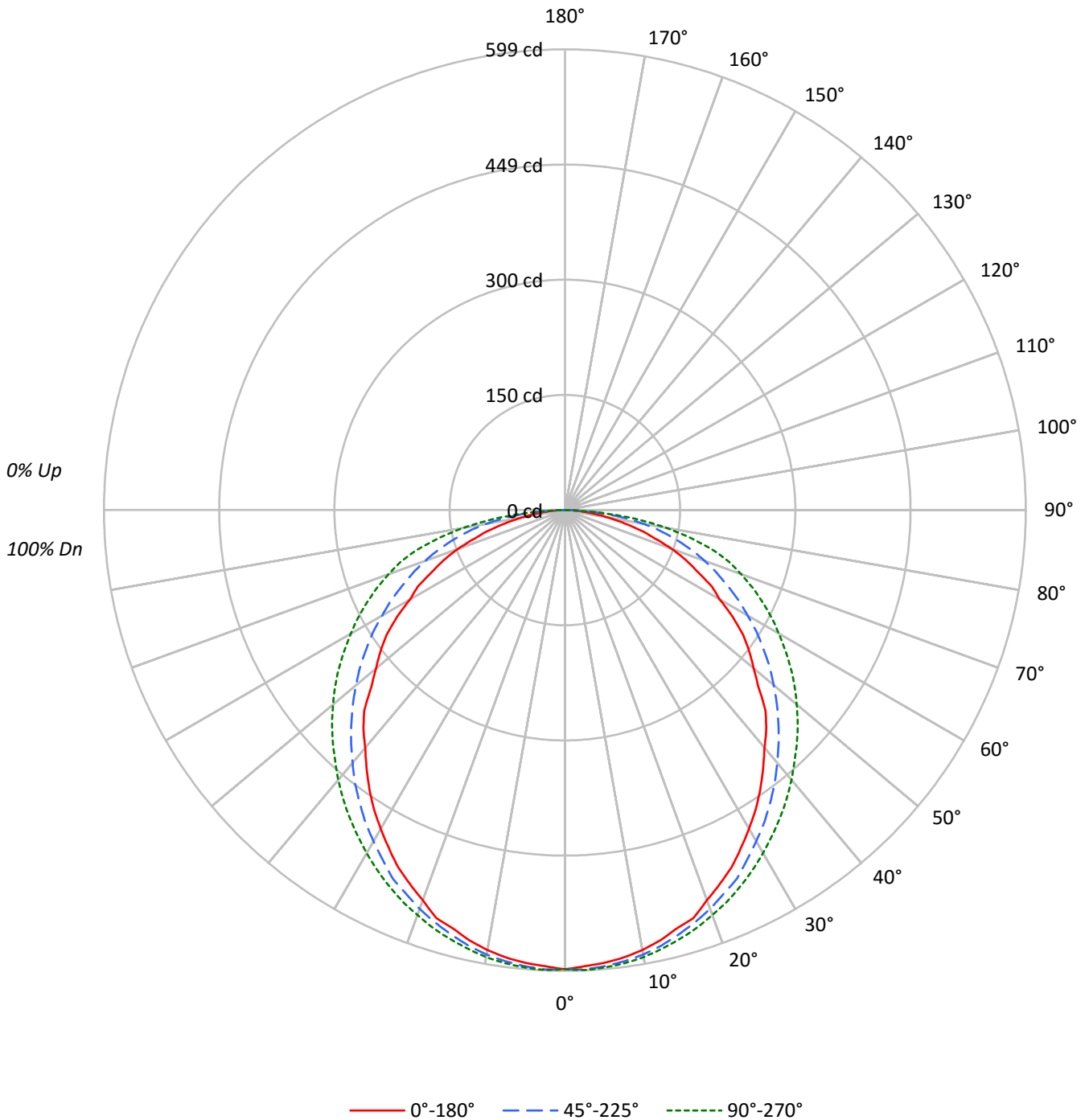
Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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CATALOG NUMBER: 22FC22-20HE-UNV-L82765-CA125-W2A-U-2700K

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	100	96	92	96	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	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	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
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	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1606	1606	1606
5°	1596	1608	1612
10°	1587	1603	1612
15°	1568	1592	1608
20°	1546	1580	1605
25°	1522	1570	1603
30°	1487	1545	1601
35°	1455	1527	1603
40°	1418	1507	1609
45°	1403	1494	1623
50°	1340	1483	1647
55°	1326	1478	1682
60°	1251	1476	1728
65°	1214	1486	1805
70°	1166	1521	1916
75°	1063	1567	2063
80°	911	1623	2084
85°	735	1550	1788



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.5	3.2
10°-20°	161.1	9.1
20°-30°	242.5	13.6
30°-40°	291.0	16.4
40°-50°	304.2	17.1
50°-60°	283.5	15.9
60°-70°	232.5	13.1
70°-80°	156.7	8.8
80°-90°	51.0	2.9
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°	460.1	25.9
0°-40°	751.1	42.2
0°-60°	1338.8	75.3
0°-90°	1779.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1779.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	597	597	597	597	597	
5°	591	593	595	596	597	56
15°	563	566	571	576	577	159
25°	513	516	529	536	540	236
35°	443	449	465	481	488	277
45°	369	371	392	416	427	282
55°	283	288	315	345	358	250
65°	191	199	233	267	284	190
75°	102	113	151	185	198	107
85°	24	34	50	59	58	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	596.9	596.9	596.9	596.9	596.9
2.5°	593.5	595.2	597.7	598.6	598.6
5°	590.9	592.6	595.2	596.0	596.9
7.5°	586.7	588.4	591.8	593.5	594.3
10°	580.7	582.4	586.7	589.2	590.1
12.5°	573.0	574.7	579.8	583.2	584.1
15°	562.8	566.2	571.3	576.4	577.3
17.5°	556.0	555.1	562.0	567.9	569.6
20°	539.8	544.1	551.7	558.6	560.3
22.5°	526.2	529.6	539.8	547.5	550.9
25°	512.6	516.0	528.8	536.4	539.8
27.5°	495.5	500.7	512.6	523.6	527.9
30°	478.5	483.6	497.2	510.0	515.1
32.5°	461.5	467.4	481.9	495.5	501.5
35°	442.8	448.7	464.9	481.1	487.9
37.5°	423.2	430.8	447.9	465.7	473.4
40°	403.6	411.3	429.1	449.6	458.1
42.5°	387.4	390.8	411.3	433.4	441.9
45°	368.7	371.2	392.5	416.4	426.6
47.5°	341.4	350.8	373.8	400.2	410.4
50°	320.1	330.4	354.2	382.3	393.4
52.5°	302.3	309.1	335.5	363.6	376.3
55°	282.7	287.8	315.0	344.8	358.5
57.5°	258.8	268.2	295.5	326.1	339.7
60°	232.4	244.4	274.2	307.4	321.0
62.5°	215.4	222.2	254.6	287.8	303.1
65°	190.7	199.2	233.3	267.4	283.5
67.5°	170.3	178.8	213.7	247.8	264.0
70°	148.2	156.7	193.3	227.3	243.5
72.5°	122.6	134.5	172.8	206.9	223.9
75°	102.2	113.2	150.7	184.8	198.4
77.5°	79.2	93.7	128.6	156.7	166.9
80°	58.8	73.2	104.7	125.2	134.5
82.5°	40.0	54.5	78.3	93.7	98.8
85°	23.8	34.1	50.2	58.8	57.9
87.5°	11.1	14.5	20.4	20.4	19.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)