

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: P308605

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-CA08-W2A-U-5000K**

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: P308605
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-CA08-W2A-U-5000K
Description: 2'X2' TROFFER LED MODULE, RIBBED 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: 2003.0 lumens
Efficiency: N/A
Efficacy: 117.1 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

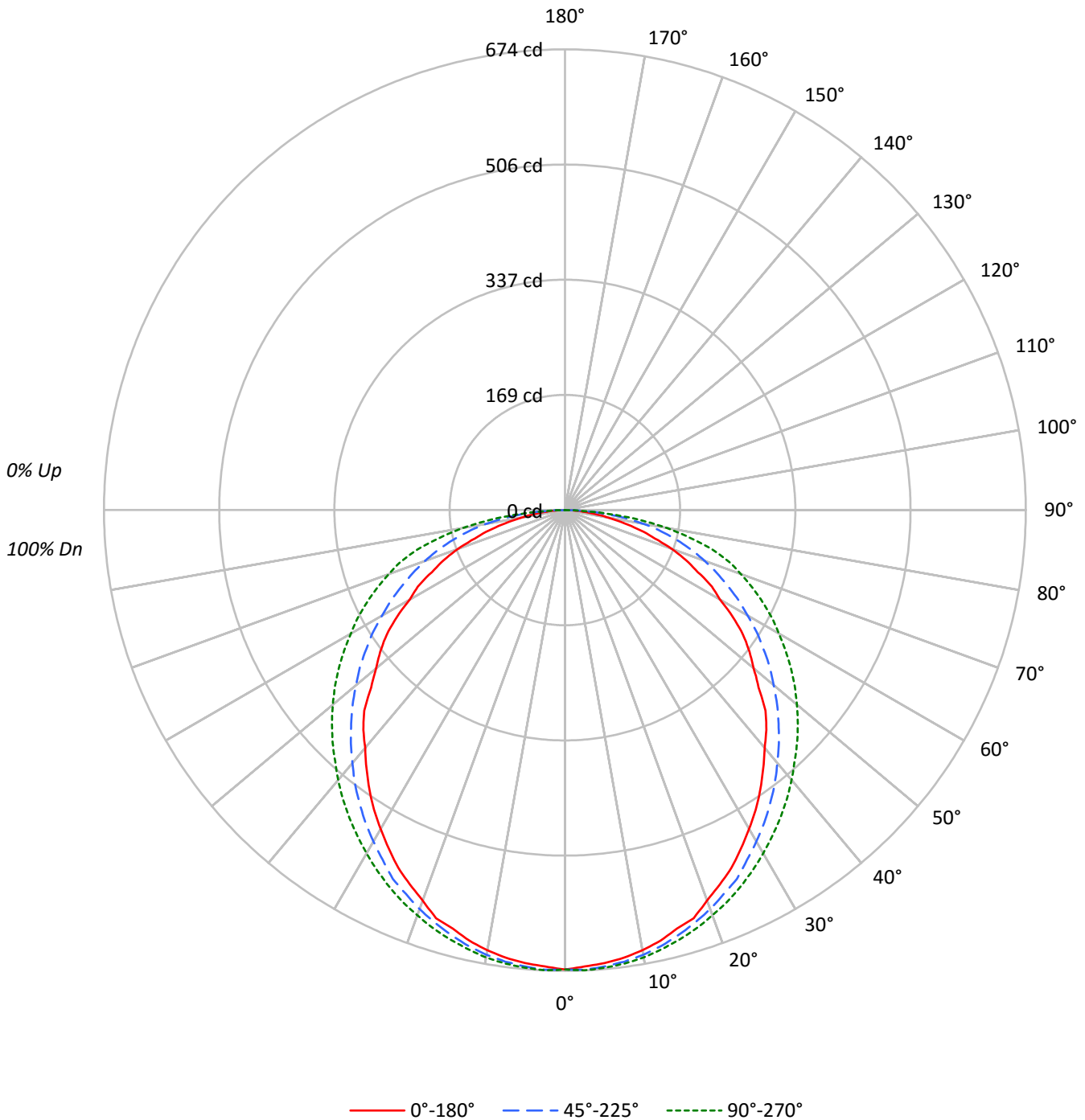
Input Watts (W): 17.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P308605

CATALOG NUMBER: 22FCZ2-20HE-UNV-L82765-CA08-W2A-U-5000K

Luminous Intensity Polar Plot





TEST NUMBER: P308605

CATALOG NUMBER: 22FCZ2-20HE-UNV-L82765-CA08-W2A-U-5000K

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°	1808	1808	1808
5°	1797	1810	1815
10°	1787	1805	1815
15°	1765	1792	1811
20°	1741	1779	1806
25°	1714	1768	1805
30°	1674	1740	1802
35°	1638	1719	1804
40°	1596	1697	1812
45°	1580	1682	1828
50°	1509	1670	1854
55°	1493	1664	1894
60°	1408	1661	1945
65°	1367	1673	2032
70°	1312	1712	2157
75°	1196	1764	2323
80°	1024	1827	2348
85°	827	1748	2013



TEST NUMBER: P308605

CATALOG NUMBER: 22FCZ2-20HE-UNV-L82765-CA08-W2A-U-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.6	3.2
10°-20°	181.4	9.1
20°-30°	273.0	13.6
30°-40°	327.7	16.4
40°-50°	342.5	17.1
50°-60°	319.2	15.9
60°-70°	261.8	13.1
70°-80°	176.4	8.8
80°-90°	57.5	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°	518.0	25.9
0°-40°	845.7	42.2
0°-60°	1507.4	75.3
0°-90°	2003.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2003.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	672	672	672	672	672	
5°	665	667	670	671	672	63
15°	634	638	643	649	650	179
25°	577	581	595	604	608	265
35°	498	505	523	542	549	312
45°	415	418	442	469	480	317
55°	318	324	355	388	404	282
65°	215	224	263	301	319	214
75°	115	128	170	208	223	121
85°	27	38	57	66	65	32
90°	0	0	0	0	0	



TEST NUMBER: P308605

CATALOG NUMBER: 22FCZ2-20HE-UNV-L82765-CA08-W2A-U-5000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	672.0	672.0	672.0	672.0	672.0
2.5°	668.2	670.1	673.0	673.9	673.9
5°	665.3	667.2	670.1	671.1	672.0
7.5°	660.5	662.4	666.3	668.2	669.1
10°	653.8	655.7	660.5	663.4	664.4
12.5°	645.2	647.1	652.9	656.7	657.6
15°	633.7	637.5	643.3	649.0	650.0
17.5°	626.0	625.0	632.7	639.4	641.3
20°	607.8	612.6	621.2	628.9	630.8
22.5°	592.5	596.3	607.8	616.4	620.3
25°	577.1	581.0	595.3	604.0	607.8
27.5°	557.9	563.7	577.1	589.6	594.4
30°	538.8	544.5	559.9	574.2	580.0
32.5°	519.6	526.3	542.6	557.9	564.7
35°	498.5	505.2	523.4	541.6	549.3
37.5°	476.5	485.1	504.3	524.4	533.0
40°	454.4	463.0	483.2	506.2	515.8
42.5°	436.2	440.0	463.0	488.0	497.5
45°	415.1	418.0	441.9	468.8	480.3
47.5°	384.4	395.0	420.9	450.6	462.1
50°	360.5	372.0	398.8	430.4	442.9
52.5°	340.3	348.0	377.7	409.3	423.7
55°	318.3	324.0	354.7	388.3	403.6
57.5°	291.4	302.0	332.7	367.2	382.5
60°	261.7	275.1	308.7	346.1	361.4
62.5°	242.5	250.2	286.6	324.0	341.3
65°	214.7	224.3	262.7	301.0	319.2
67.5°	191.7	201.3	240.6	279.0	297.2
70°	166.8	176.4	217.6	256.0	274.2
72.5°	138.0	151.5	194.6	233.0	252.1
75°	115.0	127.5	169.7	208.0	223.4
77.5°	89.2	105.5	144.8	176.4	187.9
80°	66.1	82.4	117.9	140.9	151.5
82.5°	45.1	61.4	88.2	105.5	111.2
85°	26.8	38.3	56.6	66.1	65.2
87.5°	12.5	16.3	23.0	23.0	22.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)