

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: P308883

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-S-CA125-W2A-U-4500K**

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: P308883
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
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-S-CA125-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH 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: 2077.0 lumens
Efficiency: N/A
Efficacy: 122.2 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

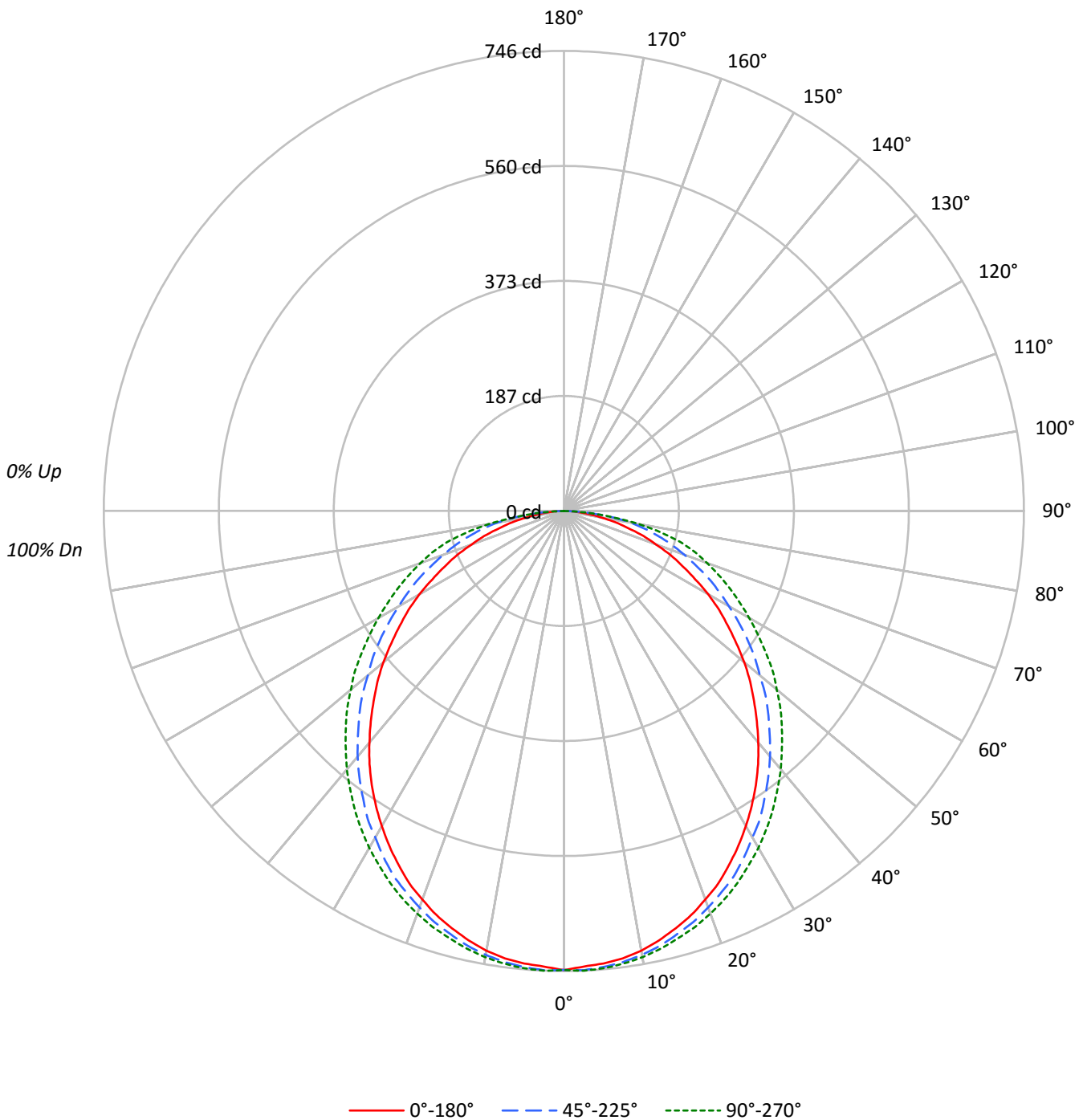
Input Watts (W): 17
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P308883

CATALOG NUMBER: 22FCZ2-20HE-UNV-L82765-S-CA125-W2A-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P308883

CATALOG NUMBER: 22FCZ2-20HE-UNV-L82765-S-CA125-W2A-U-4500K

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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2003	2003	2003
5°	1989	2005	2011
10°	1978	1997	2007
15°	1952	1979	1998
20°	1920	1959	1990
25°	1882	1939	1977
30°	1834	1900	1960
35°	1783	1866	1942
40°	1723	1828	1923
45°	1660	1785	1903
50°	1598	1737	1886
55°	1523	1705	1873
60°	1455	1664	1867
65°	1358	1654	1888
70°	1250	1640	1944
75°	1128	1663	2045
80°	976	1712	1922
85°	809	1436	1436



TEST NUMBER: P308883

CATALOG NUMBER: 22FCZ2-20HE-UNV-L82765-S-CA125-W2A-U-4500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.4	3.4
10°-20°	200.3	9.6
20°-30°	299.7	14.4
30°-40°	354.9	17.1
40°-50°	361.7	17.4
50°-60°	324.2	15.6
60°-70°	253.8	12.2
70°-80°	163.7	7.9
80°-90°	48.3	2.3
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°	570.4	27.5
0°-40°	925.3	44.5
0°-60°	1611.2	77.6
0°-90°	2077.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2077.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	744	744	744	744	744	
5°	736	738	742	743	744	70
15°	701	704	710	716	717	198
25°	634	640	653	662	666	292
35°	543	550	568	585	591	339
45°	436	446	469	493	500	337
55°	325	335	363	389	399	291
65°	213	226	260	285	296	212
75°	108	125	160	187	197	116
85°	26	36	46	46	46	31
90°	0	0	0	0	0	



TEST NUMBER: P308883

CATALOG NUMBER: 22FCZ2-20HE-UNV-L82765-S-CA125-W2A-U-4500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	744.3	744.3	744.3	744.3	744.3
2.5°	739.4	741.3	745.2	746.2	746.2
5°	736.5	738.4	742.3	743.3	744.3
7.5°	731.7	732.6	737.5	739.4	740.4
10°	723.9	725.8	730.7	733.6	734.6
12.5°	713.2	716.2	722.0	725.8	726.8
15°	700.6	704.5	710.3	716.2	717.1
17.5°	687.1	691.0	698.7	705.5	707.4
20°	670.6	675.4	684.2	691.9	694.8
22.5°	654.1	658.0	668.7	678.4	681.3
25°	633.8	639.6	653.2	661.9	665.8
27.5°	612.5	619.2	632.8	644.4	648.3
30°	590.2	597.0	611.5	626.0	630.9
32.5°	566.9	574.7	592.1	606.6	611.5
35°	542.7	549.5	567.9	585.3	591.1
37.5°	517.5	523.3	544.6	563.0	568.9
40°	490.4	498.1	520.4	541.7	547.5
42.5°	463.2	471.9	494.2	517.5	523.3
45°	436.1	445.8	469.0	493.3	500.0
47.5°	409.9	417.7	443.8	467.1	476.8
50°	381.8	389.6	414.8	440.9	450.6
52.5°	352.7	363.4	390.5	415.7	427.4
55°	324.6	335.3	363.4	388.6	399.3
57.5°	298.5	307.2	336.3	362.4	373.1
60°	270.4	278.1	309.1	337.2	346.9
62.5°	240.3	252.0	283.9	310.1	321.7
65°	213.2	225.8	259.7	284.9	296.5
67.5°	188.0	199.6	232.6	259.7	272.3
70°	158.9	174.4	208.4	235.5	247.1
72.5°	135.7	149.2	184.1	211.3	223.9
75°	108.5	125.0	159.9	187.0	196.7
77.5°	86.2	102.7	135.7	157.0	161.8
80°	63.0	79.5	110.5	121.1	124.0
82.5°	42.6	58.1	79.5	82.4	83.3
85°	26.2	35.9	46.5	46.5	46.5
87.5°	12.6	14.5	16.5	15.5	15.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)