

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: P308894

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-S-CP125-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: P308894
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-CP125-W2A-U-5500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB 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: 2085.0 lumens
Efficiency: N/A
Efficacy: 121.2 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

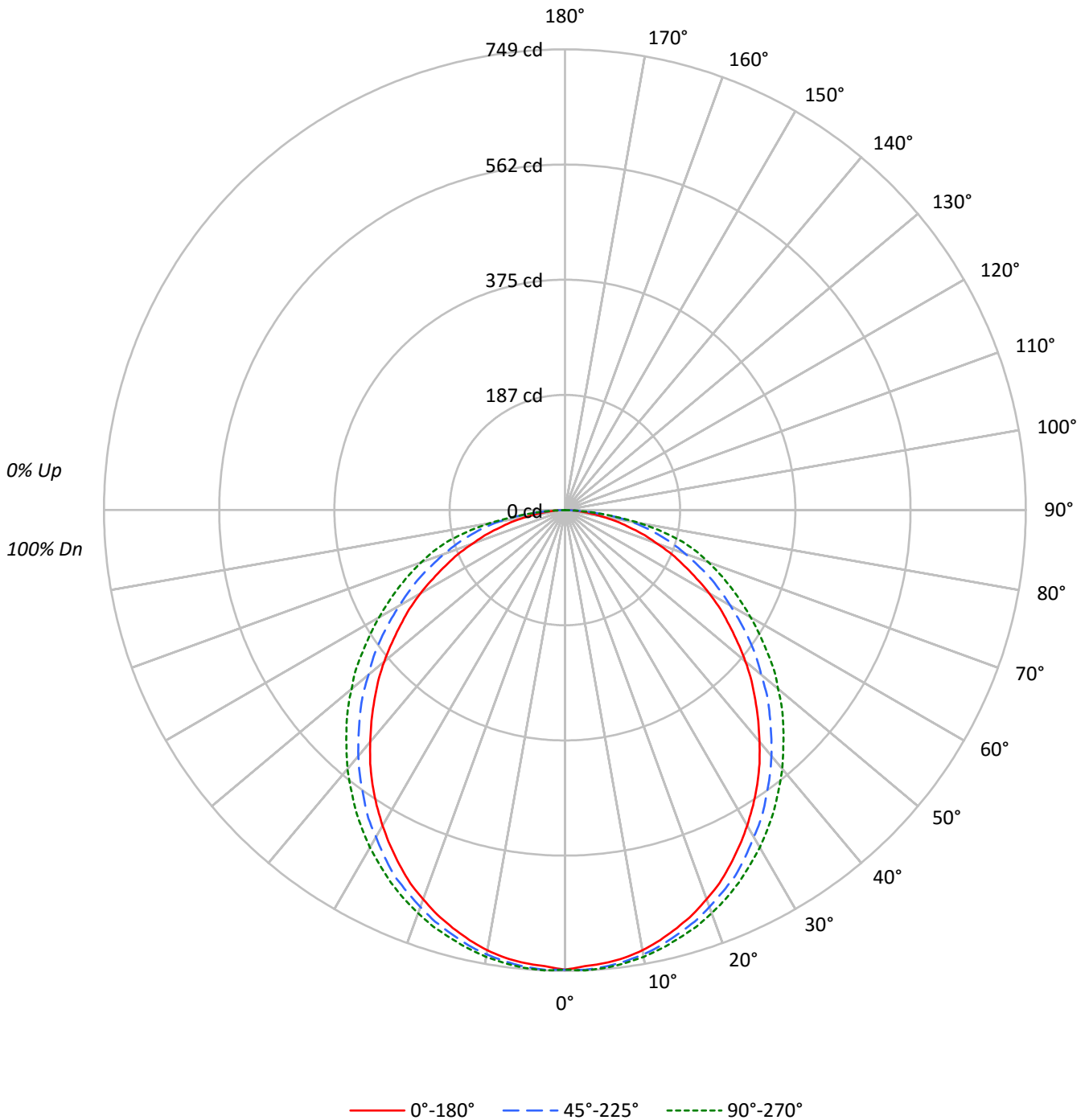
Input Watts (W): 17.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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CATALOG NUMBER: 22FC22-20HE-UNV-L82765-S-CP125-W2A-U-5500K

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°	2010	2010	2010
5°	1997	2013	2018
10°	1986	2004	2015
15°	1959	1987	2006
20°	1928	1967	1997
25°	1889	1947	1984
30°	1841	1907	1968
35°	1790	1873	1949
40°	1729	1835	1931
45°	1666	1792	1910
50°	1605	1743	1894
55°	1529	1711	1880
60°	1461	1670	1875
65°	1363	1660	1896
70°	1255	1646	1952
75°	1133	1669	2053
80°	979	1719	1929
85°	812	1442	1442



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.7	3.4
10°-20°	201.1	9.6
20°-30°	300.8	14.4
30°-40°	356.3	17.1
40°-50°	363.1	17.4
50°-60°	325.4	15.6
60°-70°	254.8	12.2
70°-80°	164.3	7.9
80°-90°	48.5	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°	572.6	27.5
0°-40°	928.8	44.5
0°-60°	1617.4	77.6
0°-90°	2085.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2085.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	747	747	747	747	747	
5°	739	741	745	746	747	70
15°	703	707	713	719	720	198
25°	636	642	656	664	668	293
35°	545	552	570	588	593	340
45°	438	448	471	495	502	338
55°	326	337	365	390	401	292
65°	214	227	261	286	298	213
75°	109	126	160	188	198	117
85°	26	36	47	47	47	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	747.1	747.1	747.1	747.1	747.1
2.5°	742.3	744.2	748.1	749.1	749.1
5°	739.3	741.3	745.2	746.1	747.1
7.5°	734.5	735.4	740.3	742.3	743.2
10°	726.7	728.6	733.5	736.4	737.4
12.5°	716.0	718.9	724.7	728.6	729.6
15°	703.3	707.2	713.1	718.9	719.9
17.5°	689.7	693.6	701.4	708.2	710.2
20°	673.2	678.1	686.8	694.6	697.5
22.5°	656.6	660.5	671.2	681.0	683.9
25°	636.2	642.1	655.7	664.4	668.3
27.5°	614.8	621.6	635.2	646.9	650.8
30°	592.4	599.3	613.8	628.4	633.3
32.5°	569.1	576.9	594.4	609.0	613.8
35°	544.8	551.6	570.1	587.6	593.4
37.5°	519.5	525.3	546.7	565.2	571.0
40°	492.2	500.0	522.4	543.8	549.6
42.5°	465.0	473.8	496.1	519.5	525.3
45°	437.8	447.5	470.8	495.2	502.0
47.5°	411.5	419.3	445.5	468.9	478.6
50°	383.3	391.1	416.4	442.6	452.4
52.5°	354.1	364.8	392.0	417.3	429.0
55°	325.9	336.6	364.8	390.1	400.8
57.5°	299.6	308.4	337.6	363.8	374.5
60°	271.4	279.2	310.3	338.5	348.3
62.5°	241.3	252.9	285.0	311.3	323.0
65°	214.0	226.7	260.7	286.0	297.7
67.5°	188.7	200.4	233.5	260.7	273.4
70°	159.5	175.1	209.2	236.4	248.1
72.5°	136.2	149.8	184.8	212.1	224.7
75°	109.0	125.5	160.5	187.8	197.5
77.5°	86.6	103.1	136.2	157.6	162.5
80°	63.2	79.8	110.9	121.6	124.5
82.5°	42.8	58.4	79.8	82.7	83.7
85°	26.3	36.0	46.7	46.7	46.7
87.5°	12.6	14.6	16.5	15.6	15.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)