

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: P308882

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-S-CA125-W2A-U-4000K**

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: P308882
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-4000K
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: 2041.0 lumens
Efficiency: N/A
Efficacy: 120.8 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

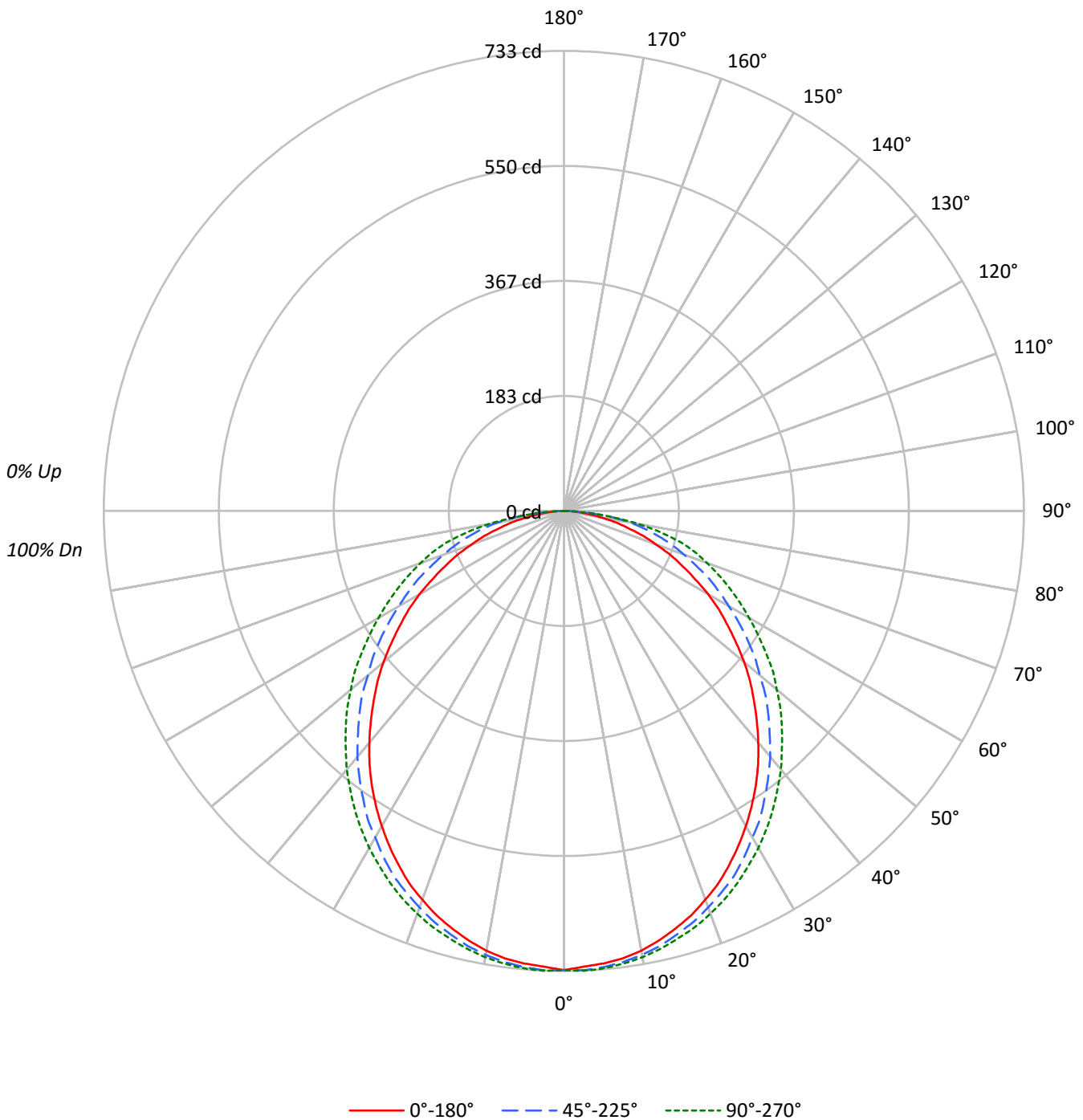
Input Watts (W): 16.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P308882

CATALOG NUMBER: 22FC22-20HE-UNV-L82765-S-CA125-W2A-U-4000K

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°	1968	1968	1968
5°	1955	1970	1976
10°	1944	1962	1972
15°	1918	1945	1963
20°	1887	1925	1955
25°	1849	1906	1942
30°	1802	1867	1926
35°	1752	1833	1908
40°	1693	1796	1890
45°	1631	1754	1870
50°	1571	1706	1854
55°	1497	1675	1841
60°	1430	1635	1835
65°	1334	1625	1855
70°	1229	1611	1910
75°	1109	1633	2010
80°	959	1683	1889
85°	794	1411	1411



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.2	3.4
10°-20°	196.8	9.6
20°-30°	294.5	14.4
30°-40°	348.8	17.1
40°-50°	355.4	17.4
50°-60°	318.6	15.6
60°-70°	249.4	12.2
70°-80°	160.8	7.9
80°-90°	47.5	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°	560.5	27.5
0°-40°	909.2	44.5
0°-60°	1583.2	77.6
0°-90°	2041.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2041.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	731	731	731	731	731	
5°	724	726	729	730	731	69
15°	688	692	698	704	705	194
25°	623	628	642	650	654	287
35°	533	540	558	575	581	333
45°	428	438	461	485	491	331
55°	319	330	357	382	392	286
65°	210	222	255	280	291	208
75°	107	123	157	184	193	114
85°	26	35	46	46	46	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	731.4	731.4	731.4	731.4	731.4
2.5°	726.6	728.5	732.3	733.3	733.3
5°	723.7	725.6	729.4	730.4	731.4
7.5°	719.0	719.9	724.7	726.6	727.5
10°	711.4	713.3	718.0	720.9	721.8
12.5°	700.9	703.7	709.5	713.3	714.2
15°	688.5	692.3	698.0	703.7	704.7
17.5°	675.2	679.0	686.6	693.3	695.2
20°	659.0	663.7	672.3	679.9	682.8
22.5°	642.8	646.6	657.1	666.6	669.5
25°	622.8	628.5	641.8	650.4	654.2
27.5°	601.8	608.5	621.8	633.3	637.1
30°	579.9	586.6	600.9	615.2	619.9
32.5°	557.1	564.7	581.8	596.1	600.9
35°	533.3	539.9	558.0	575.2	580.9
37.5°	508.5	514.2	535.2	553.3	559.0
40°	481.9	489.5	511.4	532.3	538.0
42.5°	455.2	463.8	485.7	508.5	514.2
45°	428.5	438.1	460.9	484.7	491.4
47.5°	402.8	410.4	436.1	459.0	468.5
50°	375.2	382.8	407.6	433.3	442.8
52.5°	346.6	357.1	383.8	408.5	420.0
55°	319.0	329.5	357.1	381.9	392.3
57.5°	293.3	301.9	330.4	356.2	366.6
60°	265.7	273.3	303.8	331.4	340.9
62.5°	236.2	247.6	279.0	304.7	316.2
65°	209.5	221.9	255.2	280.0	291.4
67.5°	184.7	196.2	228.5	255.2	267.6
70°	156.2	171.4	204.7	231.4	242.8
72.5°	133.3	146.7	180.9	207.6	220.0
75°	106.7	122.8	157.1	183.8	193.3
77.5°	84.8	100.9	133.3	154.3	159.0
80°	61.9	78.1	108.6	119.0	121.9
82.5°	41.9	57.1	78.1	80.9	81.9
85°	25.7	35.2	45.7	45.7	45.7
87.5°	12.4	14.3	16.2	15.2	15.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)