

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: P308618

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-CP125-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: P308618  
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-CP125-W2A-U-2700K  
Description: 2'X2' TROFFER LED MODULE, RIBBED 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: 1744.0 lumens  
Efficiency: N/A  
Efficacy: 104.4 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

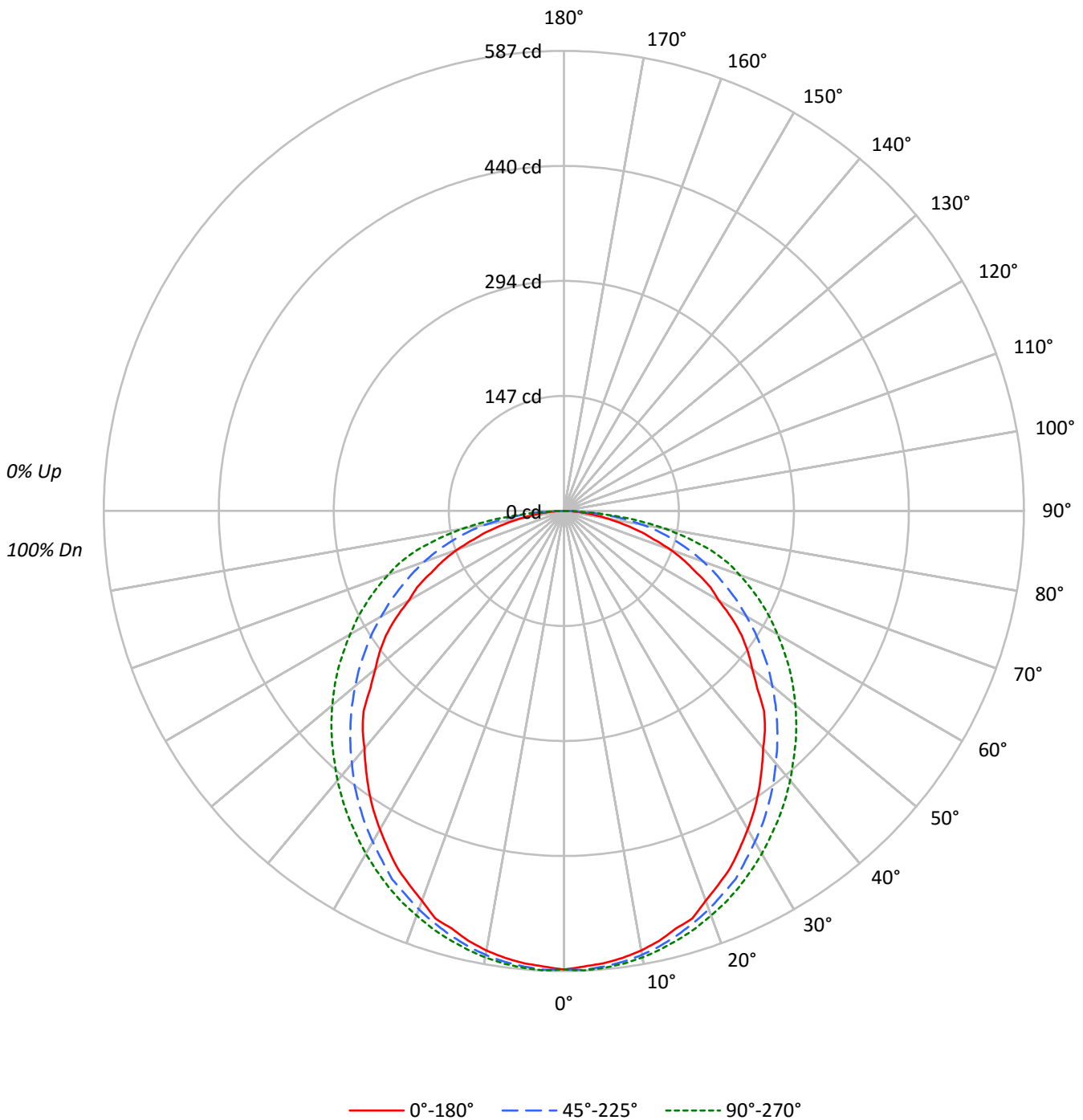
Input Watts (W): 16.7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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CATALOG NUMBER: 22FC22-20HE-UNV-L82765-CP125-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°	1574	1574	1574
5°	1565	1576	1581
10°	1556	1571	1580
15°	1537	1560	1577
20°	1515	1549	1573
25°	1492	1539	1571
30°	1458	1515	1569
35°	1426	1497	1571
40°	1390	1478	1578
45°	1375	1464	1592
50°	1314	1454	1614
55°	1300	1449	1649
60°	1227	1447	1694
65°	1191	1456	1770
70°	1142	1491	1878
75°	1042	1536	2022
80°	893	1592	2044
85°	722	1519	1754



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.4	3.2
10°-20°	157.9	9.1
20°-30°	237.7	13.6
30°-40°	285.3	16.4
40°-50°	298.2	17.1
50°-60°	277.9	15.9
60°-70°	227.9	13.1
70°-80°	153.6	8.8
80°-90°	50.0	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°	451.0	25.9
0°-40°	736.3	42.2
0°-60°	1312.4	75.3
0°-90°	1744.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1744.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	585	585	585	585	585	
5°	579	581	584	584	585	55
15°	552	555	560	565	566	156
25°	502	506	518	526	529	231
35°	434	440	456	472	478	271
45°	361	364	385	408	418	276
55°	277	282	309	338	351	246
65°	187	195	229	262	278	186
75°	100	111	148	181	194	105
85°	23	33	49	58	57	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	585.1	585.1	585.1	585.1	585.1
2.5°	581.8	583.5	586.0	586.8	586.8
5°	579.3	581.0	583.5	584.3	585.1
7.5°	575.1	576.8	580.1	581.8	582.6
10°	569.3	570.9	575.1	577.6	578.4
12.5°	561.8	563.4	568.4	571.8	572.6
15°	551.7	555.1	560.1	565.1	565.9
17.5°	545.1	544.2	550.9	556.7	558.4
20°	529.2	533.4	540.9	547.6	549.2
22.5°	515.8	519.2	529.2	536.7	540.1
25°	502.5	505.8	518.4	525.9	529.2
27.5°	485.8	490.8	502.5	513.3	517.5
30°	469.1	474.1	487.5	500.0	505.0
32.5°	452.4	458.3	472.4	485.8	491.6
35°	434.0	439.9	455.7	471.6	478.3
37.5°	414.8	422.4	439.1	456.6	464.1
40°	395.6	403.2	420.7	440.7	449.1
42.5°	379.8	383.1	403.2	424.9	433.2
45°	361.4	363.9	384.8	408.2	418.2
47.5°	334.7	343.9	366.4	392.3	402.3
50°	313.8	323.9	347.2	374.8	385.6
52.5°	296.3	303.0	328.9	356.4	368.9
55°	277.1	282.1	308.8	338.1	351.4
57.5°	253.7	262.9	289.6	319.7	333.0
60°	227.9	239.6	268.8	301.3	314.7
62.5°	211.2	217.9	249.6	282.1	297.2
65°	187.0	195.3	228.7	262.1	278.0
67.5°	166.9	175.3	209.5	242.9	258.8
70°	145.2	153.6	189.5	222.9	238.7
72.5°	120.2	131.9	169.4	202.8	219.5
75°	100.2	111.0	147.7	181.1	194.5
77.5°	77.6	91.8	126.0	153.6	163.6
80°	57.6	71.8	102.7	122.7	131.9
82.5°	39.2	53.4	76.8	91.8	96.8
85°	23.4	33.4	49.2	57.6	56.8
87.5°	10.9	14.2	20.0	20.0	19.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)