

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: P308165

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-HRP-CA125-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: P308165  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22FCZ2-29HE-UNV-L82765-HRP-CA125-W2A-U-5500K  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. 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: 2067.0 lumens  
Efficiency: N/A  
Efficacy: 89.9 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

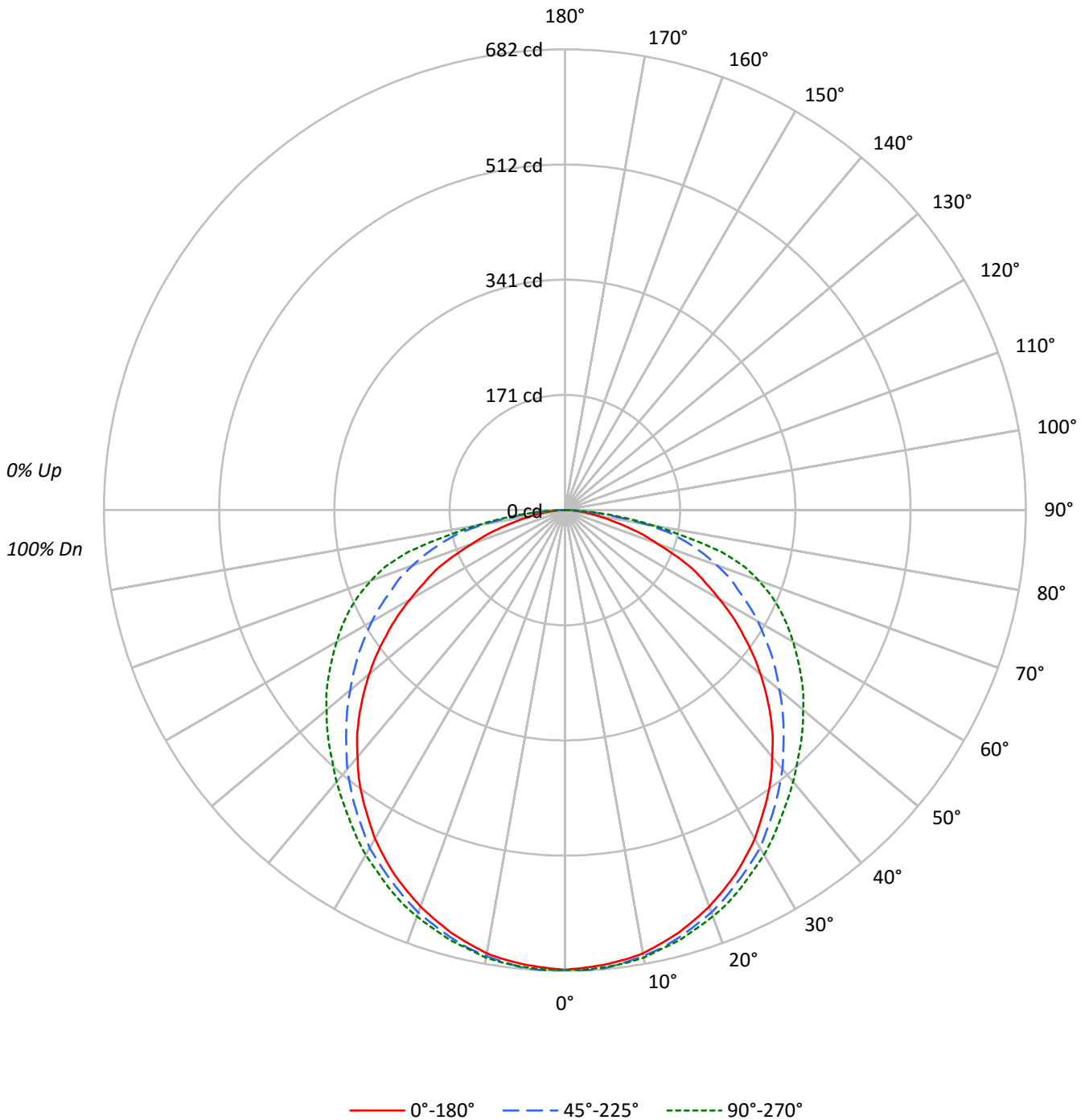
Input Watts (W): 23  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P308165

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-HRP-CA125-W2A-U-5500K

### Luminous Intensity Polar Plot





TEST NUMBER: P308165

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-HRP-CA125-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	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	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	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
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	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1831	1831	1831
5°	1824	1838	1835
10°	1821	1831	1838
15°	1805	1824	1835
20°	1789	1815	1833
25°	1769	1800	1831
30°	1746	1795	1831
35°	1713	1773	1829
40°	1676	1759	1846
45°	1638	1742	1876
50°	1583	1736	1927
55°	1511	1749	2000
60°	1425	1776	2098
65°	1345	1810	2242
70°	1149	1888	2400
75°	963	1966	2494
80°	789	1900	2081
85°	685	1408	1528



TEST NUMBER: P308165

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-HRP-CA125-W2A-U-5500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.5	3.1
10°-20°	184.5	8.9
20°-30°	279.6	13.5
30°-40°	337.7	16.3
40°-50°	354.8	17.2
50°-60°	333.9	16.2
60°-70°	278.4	13.5
70°-80°	184.4	8.9
80°-90°	49.1	2.4
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°	528.7	25.6
0°-40°	866.4	41.9
0°-60°	1555.0	75.2
0°-90°	2067.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2067.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	681	681	681	681	681	
5°	675	677	681	681	679	64
15°	648	651	655	657	658	183
25°	596	600	606	614	617	274
35°	522	527	540	552	557	326
45°	430	437	458	481	493	331
55°	322	336	373	411	426	288
65°	211	230	284	331	352	206
75°	93	129	189	228	240	101
85°	22	34	46	50	50	26
90°	0	0	0	0	0	



TEST NUMBER: P308165

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-HRP-CA125-W2A-U-5500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	680.6	680.6	680.6	680.6	680.6
2.5°	678.0	679.3	681.9	681.9	680.6
5°	675.4	676.7	680.6	680.6	679.3
7.5°	671.5	672.8	675.4	678.0	676.7
10°	666.3	667.6	670.2	672.8	672.8
12.5°	657.2	658.5	663.7	665.0	665.0
15°	648.0	650.6	654.6	657.2	658.5
17.5°	636.3	638.9	644.1	649.3	649.3
20°	624.6	627.2	633.7	638.9	640.2
22.5°	610.2	614.1	620.7	627.2	629.8
25°	595.9	599.8	606.3	614.1	616.7
27.5°	578.9	582.8	592.0	601.1	602.4
30°	562.0	565.9	577.6	585.5	589.4
32.5°	541.1	546.3	558.1	569.8	573.7
35°	521.6	526.8	539.8	551.6	556.8
37.5°	500.7	505.9	520.3	534.6	541.1
40°	477.2	483.7	500.7	516.3	525.5
42.5°	455.1	461.6	478.5	499.4	508.5
45°	430.3	436.8	457.7	481.1	492.9
47.5°	404.2	412.0	436.8	465.5	477.2
50°	378.1	387.3	414.6	447.2	460.3
52.5°	350.8	362.5	393.8	429.0	444.6
55°	322.1	336.4	372.9	410.7	426.4
57.5°	294.7	307.7	350.8	391.2	408.1
60°	264.7	281.6	329.9	371.6	389.9
62.5°	236.0	254.3	307.7	352.1	371.6
65°	211.2	229.5	284.3	331.2	352.1
67.5°	178.6	203.4	264.7	309.0	329.9
70°	146.0	179.9	239.9	285.6	305.1
72.5°	121.3	153.9	215.1	260.8	279.0
75°	92.6	129.1	189.1	228.2	239.9
77.5°	69.1	106.9	161.7	181.2	182.5
80°	50.9	82.1	122.6	129.1	134.3
82.5°	35.2	57.4	79.5	87.4	90.0
85°	22.2	33.9	45.6	49.5	49.5
87.5°	11.7	13.0	15.6	15.6	15.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)