

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: P308436

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-RDP-CA125-W2A-U-5700K**

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: P308436
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
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-RDP-CA125-W2A-U-5700K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 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: 1785.0 lumens
Efficiency: N/A
Efficacy: 77.6 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

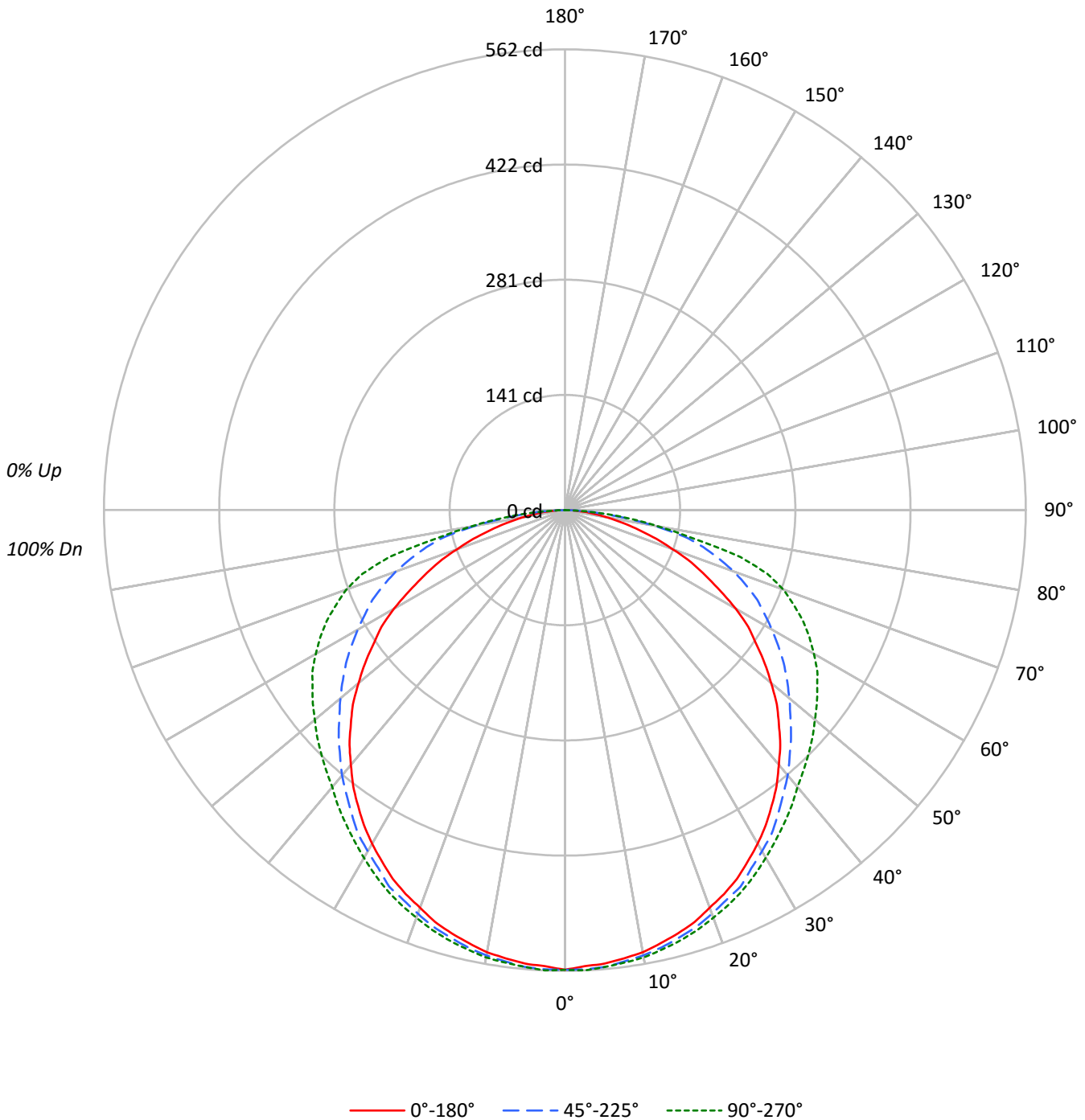
Input Watts (W): 23
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P308436

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-RDP-CA125-W2A-U-5700K

Luminous Intensity Polar Plot





TEST NUMBER: P308436

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-RDP-CA125-W2A-U-5700K

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	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	100	100	100	100	100		
	1	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82	82	82	82	82	82		
	2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67	67	67	67	67	67		
	3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55	55	55	55	55	55		
	4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47	47	47	47	47	47		
	5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40	40	40	40	40	40		
	6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35	35	35	35	35	35		
	7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31	31	31	31	31	31		
	8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27	27	27	27	27	27		
	9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24	24	24	24	24	24		
	10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22	22	22	22	22	22		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1509	1509	1509
5°	1500	1511	1511
10°	1496	1507	1514
15°	1489	1504	1514
20°	1478	1500	1515
25°	1474	1505	1521
30°	1461	1493	1522
35°	1445	1488	1532
40°	1426	1485	1550
45°	1404	1484	1599
50°	1374	1495	1666
55°	1337	1528	1762
60°	1293	1569	1887
65°	1204	1647	2040
70°	1105	1725	2231
75°	969	1815	2307
80°	834	1729	1812
85°	729	1257	1377



TEST NUMBER: P308436

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-RDP-CA125-W2A-U-5700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.0	3.0
10°-20°	152.3	8.5
20°-30°	232.3	13.0
30°-40°	283.7	15.9
40°-50°	303.3	17.0
50°-60°	292.8	16.4
60°-70°	252.0	14.1
70°-80°	170.5	9.6
80°-90°	45.0	2.5
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°	437.7	24.5
0°-40°	721.4	40.4
0°-60°	1317.5	73.8
0°-90°	1785.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1785.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	561	561	561	561	561	
5°	555	557	559	559	559	53
15°	534	536	540	542	544	151
25°	496	499	507	510	512	228
35°	440	444	453	462	466	275
45°	369	376	390	410	420	285
55°	285	294	326	358	376	255
65°	189	208	259	299	320	188
75°	93	123	175	210	222	100
85°	24	33	41	42	45	27
90°	0	0	0	0	0	



TEST NUMBER: P308436

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-RDP-CA125-W2A-U-5700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	560.7	560.7	560.7	560.7	560.7
2.5°	556.8	558.1	560.7	560.7	562.0
5°	555.4	556.8	559.4	559.4	559.4
7.5°	551.5	552.8	555.4	556.8	556.8
10°	547.6	548.9	551.5	552.8	554.1
12.5°	541.0	542.3	546.3	548.9	548.9
15°	534.4	535.8	539.7	542.3	543.6
17.5°	526.6	529.2	533.1	535.8	537.1
20°	516.1	518.7	523.9	527.9	529.2
22.5°	506.9	509.5	514.7	518.7	521.3
25°	496.4	499.0	506.9	509.5	512.1
27.5°	483.2	485.9	492.4	497.7	501.6
30°	470.1	472.7	480.6	487.2	489.8
32.5°	455.7	459.6	468.8	474.0	478.0
35°	439.9	443.8	453.0	462.2	466.2
37.5°	424.1	428.1	437.3	449.1	454.3
40°	405.8	411.0	422.8	438.6	441.2
42.5°	388.7	395.2	405.8	424.1	430.7
45°	369.0	375.6	390.0	409.7	420.2
47.5°	350.6	357.2	372.9	396.6	409.7
50°	328.3	337.5	357.2	384.7	397.9
52.5°	307.3	315.1	341.4	371.6	387.4
55°	284.9	294.1	325.7	358.5	375.6
57.5°	265.2	273.1	308.6	345.3	365.0
60°	240.3	250.8	291.5	330.9	350.6
62.5°	214.0	229.8	274.4	315.1	336.2
65°	189.1	207.5	258.7	299.4	320.4
67.5°	166.8	186.5	239.0	282.3	302.0
70°	140.5	165.5	219.3	261.3	283.6
72.5°	116.9	144.4	197.0	239.0	258.7
75°	93.2	123.4	174.6	210.1	221.9
77.5°	72.2	101.1	149.7	160.2	161.5
80°	53.8	80.1	111.6	112.9	116.9
82.5°	36.8	56.5	72.2	78.8	80.1
85°	23.6	32.8	40.7	42.0	44.6
87.5°	10.5	11.8	14.4	13.1	13.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)