

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: P308983

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-S-CP125-W2A-U-5000K**

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: P308983  
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: 22FCZ2-29HE-UNV-L82765-S-CP125-W2A-U-5000K  
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**

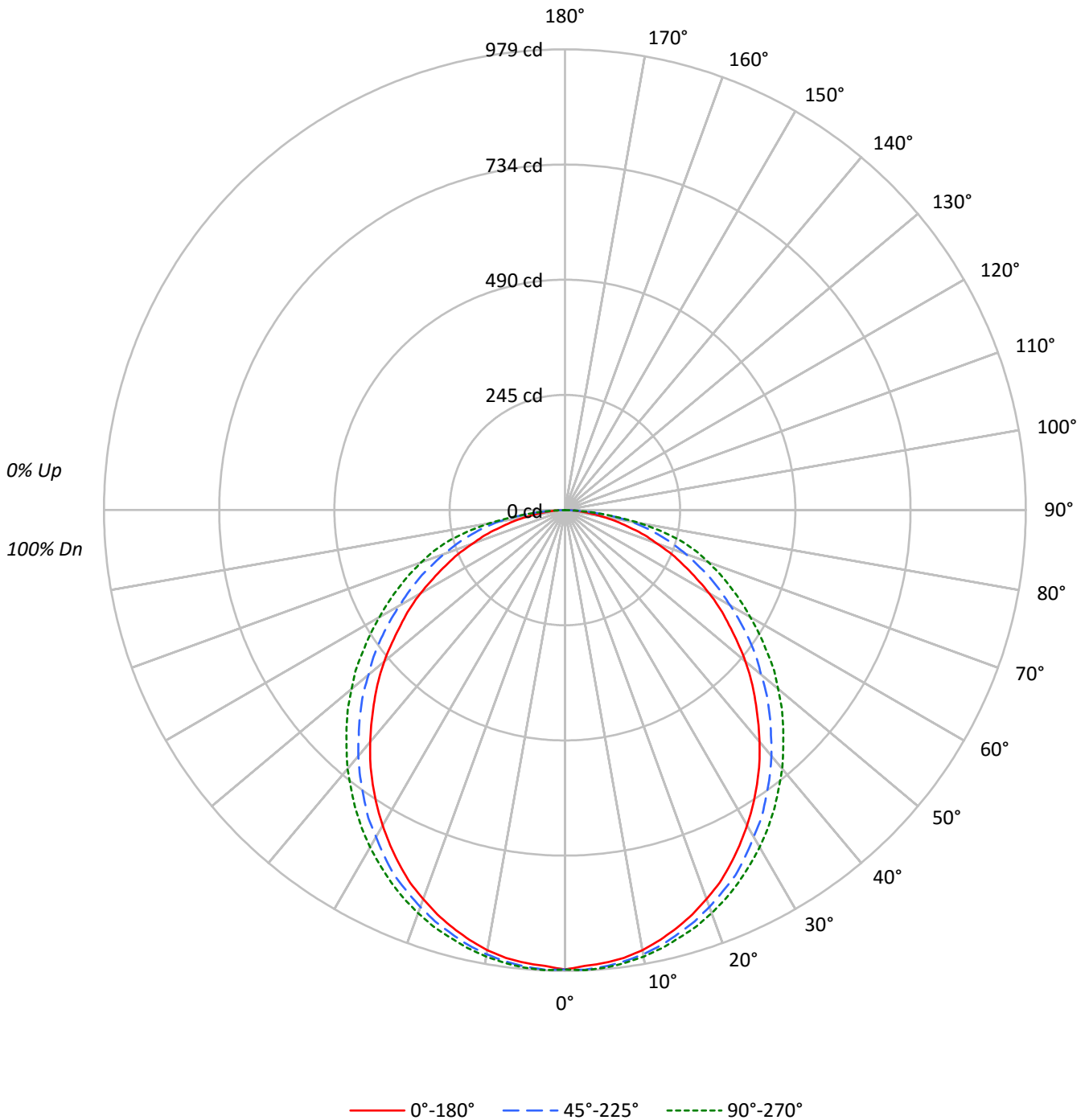
Lumens per Lamp: N/A  
Luminaire Lumens: 2724.0 lumens  
Efficiency: N/A  
Efficacy: 119.0 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 22.9  
Input Voltage (V): NR  
Input Current (A<sub>in</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



TEST NUMBER: P308983

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-S-CP125-W2A-U-5000K

### Luminous Intensity Polar Plot





TEST NUMBER: P308983

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-S-CP125-W2A-U-5000K

**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°	2627	2627	2627
5°	2609	2630	2637
10°	2594	2619	2632
15°	2560	2595	2620
20°	2519	2570	2610
25°	2468	2543	2592
30°	2405	2492	2571
35°	2338	2447	2547
40°	2259	2398	2523
45°	2176	2341	2496
50°	2097	2277	2474
55°	1998	2236	2457
60°	1908	2182	2449
65°	1780	2169	2476
70°	1640	2150	2550
75°	1480	2180	2682
80°	1280	2245	2521
85°	1059	1883	1883



TEST NUMBER: P308983

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-S-CP125-W2A-U-5000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	92.3	3.4
10°-20°	262.7	9.6
20°-30°	393.1	14.4
30°-40°	465.5	17.1
40°-50°	474.4	17.4
50°-60°	425.2	15.6
60°-70°	332.9	12.2
70°-80°	214.6	7.9
80°-90°	63.4	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°	748.0	27.5
0°-40°	1213.5	44.5
0°-60°	2113.1	77.6
0°-90°	2724.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2724.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	976	976	976	976	976	
5°	966	968	974	975	976	92
15°	919	924	932	939	940	259
25°	831	839	857	868	873	383
35°	712	721	745	768	775	445
45°	572	585	615	647	656	442
55°	426	440	477	510	524	382
65°	280	296	341	374	389	278
75°	142	164	210	245	258	153
85°	34	47	61	61	61	40
90°	0	0	0	0	0	



TEST NUMBER: P308983

CATALOG NUMBER: 22FC22-29HE-UNV-L82765-S-CP125-W2A-U-5000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	976.1	976.1	976.1	976.1	976.1
2.5°	969.7	972.3	977.4	978.6	978.6
5°	965.9	968.5	973.6	974.8	976.1
7.5°	959.6	960.8	967.2	969.7	971.0
10°	949.4	951.9	958.3	962.1	963.4
12.5°	935.4	939.2	946.9	951.9	953.2
15°	918.9	924.0	931.6	939.2	940.5
17.5°	901.1	906.2	916.4	925.3	927.8
20°	879.5	885.9	897.3	907.5	911.3
22.5°	857.9	863.0	877.0	889.7	893.5
25°	831.2	838.8	856.6	868.1	873.1
27.5°	803.2	812.1	829.9	845.2	850.3
30°	774.0	782.9	802.0	821.0	827.4
32.5°	743.5	753.7	776.6	795.6	802.0
35°	711.7	720.6	744.8	767.7	775.3
37.5°	678.7	686.3	714.3	738.4	746.1
40°	643.1	653.3	682.5	710.5	718.1
42.5°	607.5	619.0	648.2	678.7	686.3
45°	571.9	584.6	615.1	646.9	655.8
47.5°	537.6	547.8	582.1	612.6	625.3
50°	500.8	510.9	544.0	578.3	591.0
52.5°	462.6	476.6	512.2	545.2	560.5
55°	425.8	439.8	476.6	509.7	523.6
57.5°	391.5	402.9	441.0	475.3	489.3
60°	354.6	364.8	405.4	442.3	455.0
62.5°	315.2	330.4	372.4	406.7	422.0
65°	279.6	296.1	340.6	373.7	388.9
67.5°	246.6	261.8	305.0	340.6	357.1
70°	208.4	228.8	273.3	308.8	324.1
72.5°	177.9	195.7	241.5	277.1	293.6
75°	142.3	164.0	209.7	245.3	258.0
77.5°	113.1	134.7	177.9	205.9	212.2
80°	82.6	104.2	144.9	158.9	162.7
82.5°	55.9	76.3	104.2	108.0	109.3
85°	34.3	47.0	61.0	61.0	61.0
87.5°	16.5	19.1	21.6	20.3	20.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)