

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: P308982

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-S-CP125-W2A-U-4500K**

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: P308982  
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-4500K  
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**

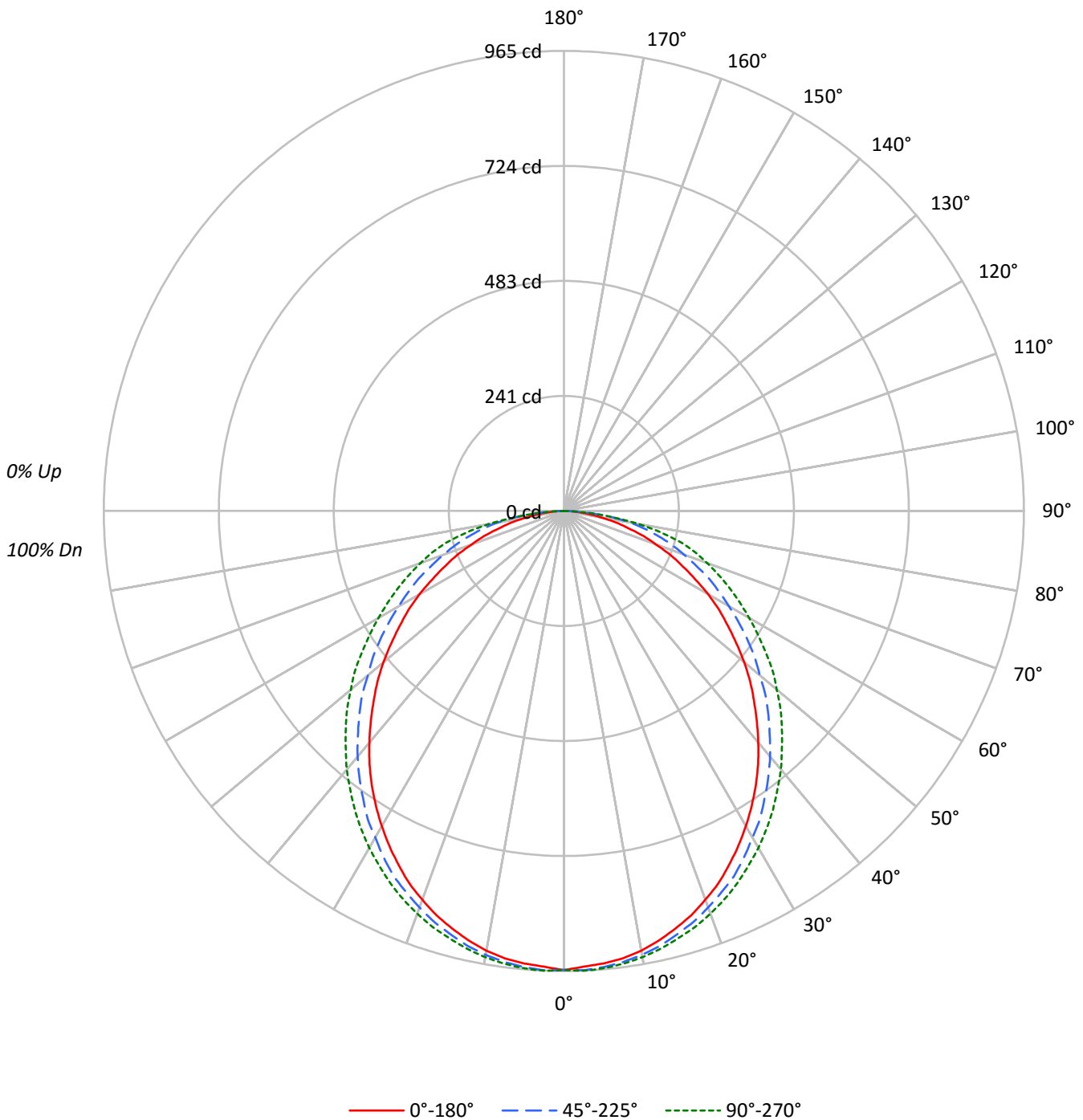
Lumens per Lamp: N/A  
Luminaire Lumens: 2687.0 lumens  
Efficiency: N/A  
Efficacy: 117.9 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 22.8  
Input Voltage (V): NR  
Input Current (A<sub>in</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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**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°	2591	2591	2591
5°	2574	2594	2601
10°	2559	2583	2597
15°	2525	2560	2584
20°	2485	2535	2574
25°	2434	2509	2557
30°	2372	2458	2536
35°	2306	2414	2512
40°	2229	2365	2488
45°	2147	2309	2462
50°	2068	2246	2441
55°	1970	2206	2423
60°	1883	2152	2415
65°	1756	2139	2443
70°	1618	2120	2515
75°	1460	2151	2646
80°	1263	2214	2487
85°	1044	1859	1859



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.1	3.4
10°-20°	259.1	9.6
20°-30°	387.7	14.4
30°-40°	459.2	17.1
40°-50°	467.9	17.4
50°-60°	419.4	15.6
60°-70°	328.4	12.2
70°-80°	211.7	7.9
80°-90°	62.6	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°	737.9	27.5
0°-40°	1197.0	44.5
0°-60°	2084.4	77.6
0°-90°	2687.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2687.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	963	963	963	963	963	
5°	953	955	960	962	963	90
15°	906	911	919	926	928	256
25°	820	827	845	856	861	377
35°	702	711	735	757	765	439
45°	564	577	607	638	647	436
55°	420	434	470	503	516	377
65°	276	292	336	369	384	274
75°	140	162	207	242	254	151
85°	34	46	60	60	60	40
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	962.8	962.8	962.8	962.8	962.8
2.5°	956.6	959.1	964.1	965.3	965.3
5°	952.8	955.3	960.3	961.6	962.8
7.5°	946.5	947.8	954.1	956.6	957.8
10°	936.5	939.0	945.3	949.0	950.3
12.5°	922.7	926.5	934.0	939.0	940.3
15°	906.4	911.4	919.0	926.5	927.7
17.5°	888.9	893.9	903.9	912.7	915.2
20°	867.6	873.8	885.1	895.1	898.9
22.5°	846.2	851.3	865.0	877.6	881.3
25°	819.9	827.4	845.0	856.3	861.3
27.5°	792.3	801.1	818.7	833.7	838.7
30°	763.5	772.3	791.1	809.9	816.2
32.5°	733.4	743.4	766.0	784.8	791.1
35°	702.1	710.8	734.7	757.2	764.8
37.5°	669.5	677.0	704.6	728.4	735.9
40°	634.4	644.4	673.2	700.8	708.3
42.5°	599.3	610.5	639.4	669.5	677.0
45°	564.2	576.7	606.8	638.1	646.9
47.5°	530.3	540.3	574.2	604.3	616.8
50°	494.0	504.0	536.6	570.4	583.0
52.5°	456.3	470.1	505.2	537.8	552.9
55°	420.0	433.8	470.1	502.7	516.5
57.5°	386.1	397.4	435.0	468.9	482.7
60°	349.8	359.8	399.9	436.3	448.8
62.5°	310.9	326.0	367.3	401.2	416.2
65°	275.8	292.1	336.0	368.6	383.6
67.5°	243.2	258.3	300.9	336.0	352.3
70°	205.6	225.7	269.5	304.6	319.7
72.5°	175.5	193.1	238.2	273.3	289.6
75°	140.4	161.7	206.9	242.0	254.5
77.5°	111.6	132.9	175.5	203.1	209.4
80°	81.5	102.8	142.9	156.7	160.5
82.5°	55.2	75.2	102.8	106.6	107.8
85°	33.8	46.4	60.2	60.2	60.2
87.5°	16.3	18.8	21.3	20.1	20.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)