

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: P308703

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-CA125-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: P308703  
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: 22FCZ2-29HE-UNV-L82765-CA125-W2A-U-4500K  
Description: 2'X2' TROFFER LED MODULE, RIBBED 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**

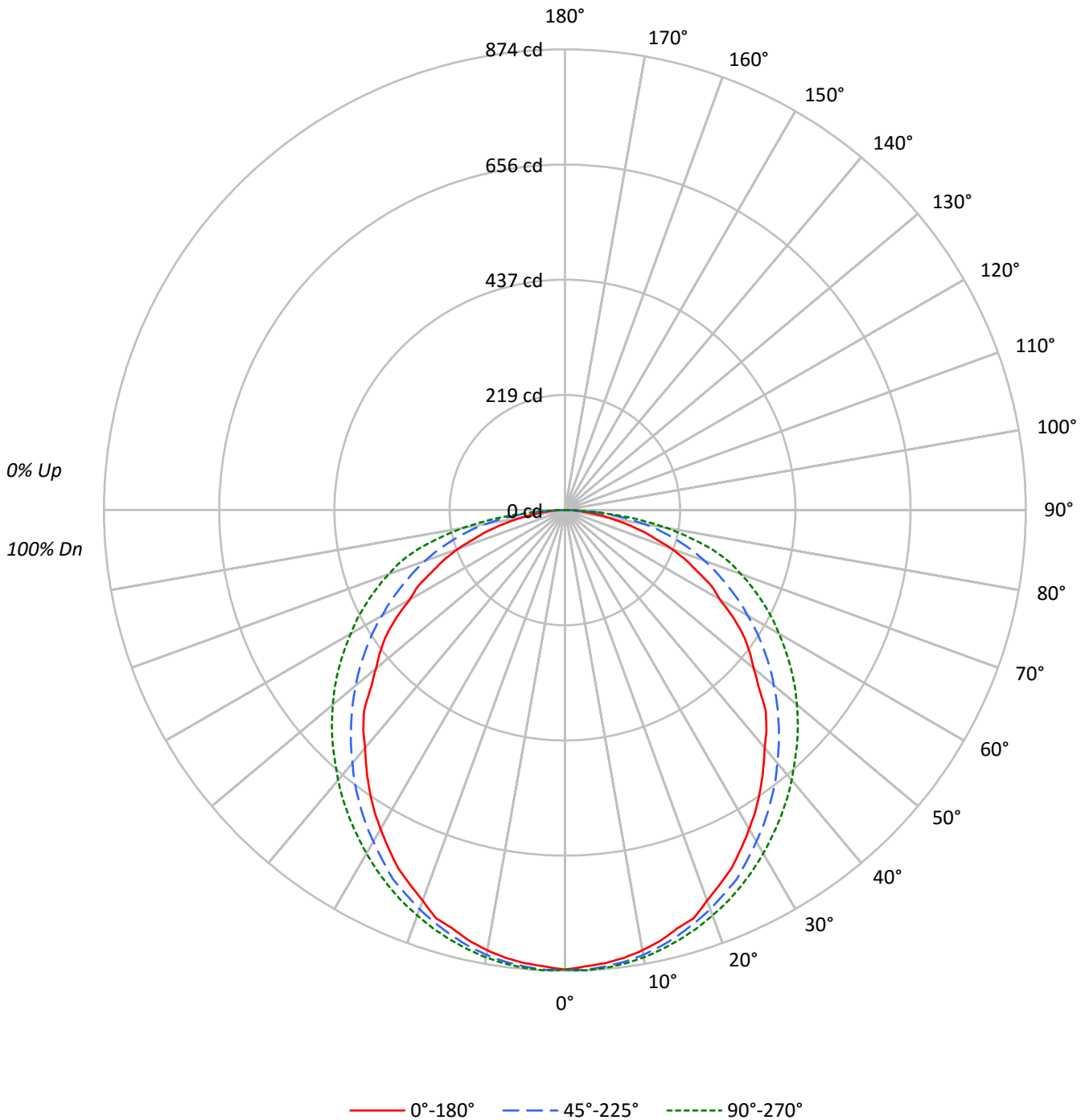
Lumens per Lamp: N/A  
Luminaire Lumens: 2598.0 lumens  
Efficiency: N/A  
Efficacy: 113.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 22.8  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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°	2346	2346	2346
5°	2331	2348	2355
10°	2317	2341	2355
15°	2290	2324	2349
20°	2257	2307	2343
25°	2223	2293	2341
30°	2171	2257	2338
35°	2124	2230	2341
40°	2070	2201	2350
45°	2049	2181	2371
50°	1957	2166	2405
55°	1937	2159	2456
60°	1827	2155	2523
65°	1773	2169	2637
70°	1703	2221	2798
75°	1551	2288	3012
80°	1330	2369	3045
85°	1074	2266	2612



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	82.5	3.2
10°-20°	235.3	9.1
20°-30°	354.1	13.6
30°-40°	425.0	16.4
40°-50°	444.2	17.1
50°-60°	414.0	15.9
60°-70°	339.5	13.1
70°-80°	228.8	8.8
80°-90°	74.5	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°	671.9	25.9
0°-40°	1096.9	42.2
0°-60°	1955.1	75.3
0°-90°	2598.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2598.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	872	872	872	872	872	
5°	863	865	869	870	872	82
15°	822	827	834	842	843	232
25°	749	754	772	783	788	344
35°	647	655	679	702	712	404
45°	538	542	573	608	623	411
55°	413	420	460	504	524	366
65°	278	291	341	390	414	277
75°	149	165	220	270	290	157
85°	35	50	73	86	85	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	871.7	871.7	871.7	871.7	871.7
2.5°	866.7	869.2	872.9	874.1	874.1
5°	862.9	865.4	869.2	870.4	871.7
7.5°	856.7	859.2	864.2	866.7	867.9
10°	848.0	850.5	856.7	860.5	861.7
12.5°	836.8	839.3	846.8	851.8	853.0
15°	821.9	826.9	834.3	841.8	843.1
17.5°	812.0	810.7	820.7	829.4	831.9
20°	788.3	794.6	805.7	815.7	818.2
22.5°	768.4	773.4	788.3	799.5	804.5
25°	748.6	753.5	772.2	783.4	788.3
27.5°	723.7	731.1	748.6	764.7	770.9
30°	698.8	706.3	726.2	744.8	752.3
32.5°	673.9	682.6	703.8	723.7	732.4
35°	646.6	655.3	678.9	702.5	712.5
37.5°	618.0	629.2	654.0	680.2	691.4
40°	589.4	600.6	626.7	656.5	669.0
42.5°	565.8	570.7	600.6	632.9	645.3
45°	538.4	542.1	573.2	608.0	623.0
47.5°	498.6	512.3	545.9	584.4	599.3
50°	467.5	482.5	517.3	558.3	574.5
52.5°	441.4	451.4	489.9	530.9	549.6
55°	412.8	420.3	460.1	503.6	523.5
57.5°	378.0	391.7	431.5	476.2	496.1
60°	339.5	356.9	400.4	448.9	468.8
62.5°	314.6	324.5	371.8	420.3	442.7
65°	278.5	291.0	340.7	390.4	414.1
67.5°	248.7	261.1	312.1	361.8	385.5
70°	216.4	228.8	282.3	332.0	355.6
72.5°	179.1	196.5	252.4	302.2	327.0
75°	149.2	165.4	220.1	269.8	289.7
77.5°	115.6	136.8	187.8	228.8	243.7
80°	85.8	106.9	152.9	182.8	196.5
82.5°	58.4	79.6	114.4	136.8	144.2
85°	34.8	49.7	73.4	85.8	84.6
87.5°	16.2	21.1	29.8	29.8	28.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)