

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: P310554

Luminaire Tested: **24FCZ2-30-UNV-L82765-CP125-W2A-U-3000K**

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: P310554  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-30-UNV-L82765-CP125-W2A-U-3000K  
Description: 2'X4' TROFFER LED MODULE, RIBBED 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**

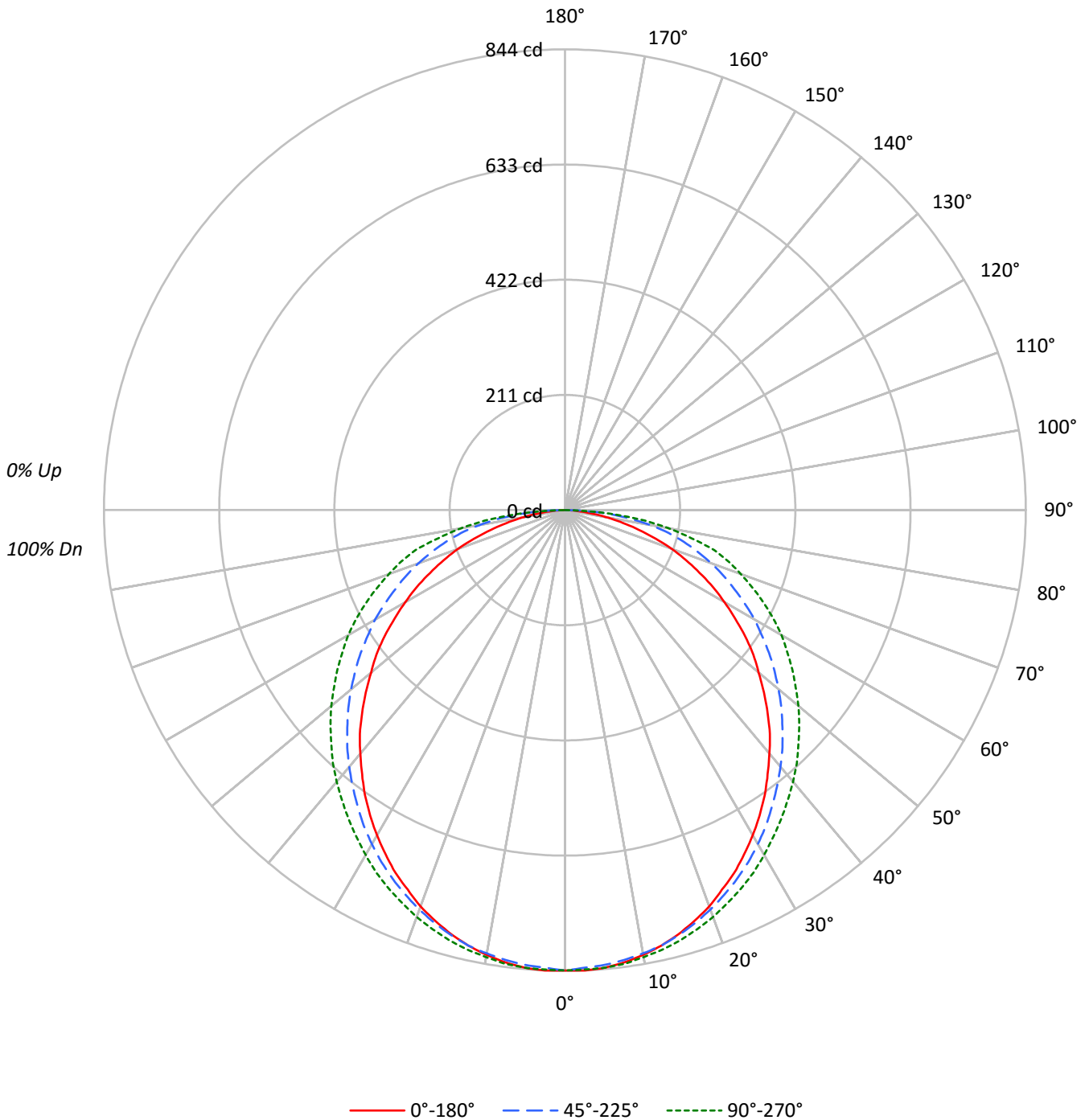
Lumens per Lamp: N/A  
Luminaire Lumens: 2557.0 lumens  
Efficiency: N/A  
Efficacy: 110.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.2  
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	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	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°	1135	1135	1135
5°	1137	1130	1137
10°	1130	1127	1136
15°	1120	1123	1137
20°	1107	1115	1136
25°	1089	1107	1135
30°	1069	1098	1134
35°	1048	1087	1134
40°	1024	1079	1141
45°	999	1072	1151
50°	970	1069	1168
55°	945	1071	1192
60°	908	1080	1233
65°	867	1091	1278
70°	821	1125	1348
75°	732	1173	1473
80°	625	1242	1506
85°	445	1230	1440



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.8	3.1
10°-20°	228.2	8.9
20°-30°	344.7	13.5
30°-40°	415.4	16.2
40°-50°	436.1	17.1
50°-60°	408.0	16.0
60°-70°	336.9	13.2
70°-80°	229.6	9.0
80°-90°	78.3	3.1
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°	652.7	25.5
0°-40°	1068.1	41.8
0°-60°	1912.2	74.8
0°-90°	2557.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2557.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	843	843	843	843	843	
5°	842	841	836	842	842	80
15°	804	805	806	814	816	227
25°	734	737	746	760	764	338
35°	638	645	662	684	691	399
45°	525	536	563	594	605	405
55°	403	419	456	494	508	360
65°	272	295	343	386	401	270
75°	141	173	226	268	283	150
85°	29	57	80	90	93	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	843.3	843.3	843.3	843.3	843.3
2.5°	844.1	843.3	839.0	843.3	842.4
5°	841.6	840.7	836.5	841.6	841.6
7.5°	835.6	835.6	831.4	837.3	838.2
10°	827.2	827.2	824.6	831.4	831.4
12.5°	817.0	817.0	817.0	823.8	824.6
15°	804.3	805.1	805.9	814.4	816.1
17.5°	789.0	790.7	793.2	803.4	805.1
20°	772.9	774.6	778.8	790.7	793.2
22.5°	752.5	756.7	762.7	776.3	778.8
25°	733.8	737.2	745.7	760.1	764.4
27.5°	710.9	716.0	727.1	742.3	748.3
30°	688.0	693.1	706.7	724.5	729.6
32.5°	663.4	671.1	685.5	704.1	710.1
35°	638.0	644.8	661.7	683.8	690.6
37.5°	610.0	619.3	638.0	661.7	670.2
40°	582.8	593.0	614.2	639.7	649.8
42.5°	555.7	565.9	589.6	618.5	628.6
45°	525.1	536.2	563.3	593.9	604.9
47.5°	494.6	508.2	537.9	570.1	582.0
50°	463.2	478.5	510.7	544.7	558.2
52.5°	435.2	449.6	483.6	520.0	532.8
55°	403.0	419.1	456.4	493.7	508.2
57.5°	369.9	387.7	427.6	468.3	482.7
60°	337.6	357.2	401.3	442.0	458.1
62.5°	306.3	325.8	371.6	414.0	430.1
65°	272.3	295.2	342.7	386.0	401.3
67.5°	240.1	264.7	314.7	357.2	372.4
70°	208.7	232.5	285.9	327.5	342.7
72.5°	174.8	201.9	255.4	298.6	314.7
75°	140.8	173.1	225.7	268.1	283.4
77.5°	109.4	142.5	195.1	229.9	237.5
80°	80.6	114.5	160.3	184.9	194.3
82.5°	51.8	85.7	122.2	140.0	147.6
85°	28.8	56.8	79.7	89.9	93.3
87.5°	11.9	24.6	32.2	36.5	36.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)