

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: P310239

Luminaire Tested: **24FCZ2-50-UNV-L82765-RDP-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: P310239  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-50-UNV-L82765-RDP-CP125-W2A-U-3000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 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**

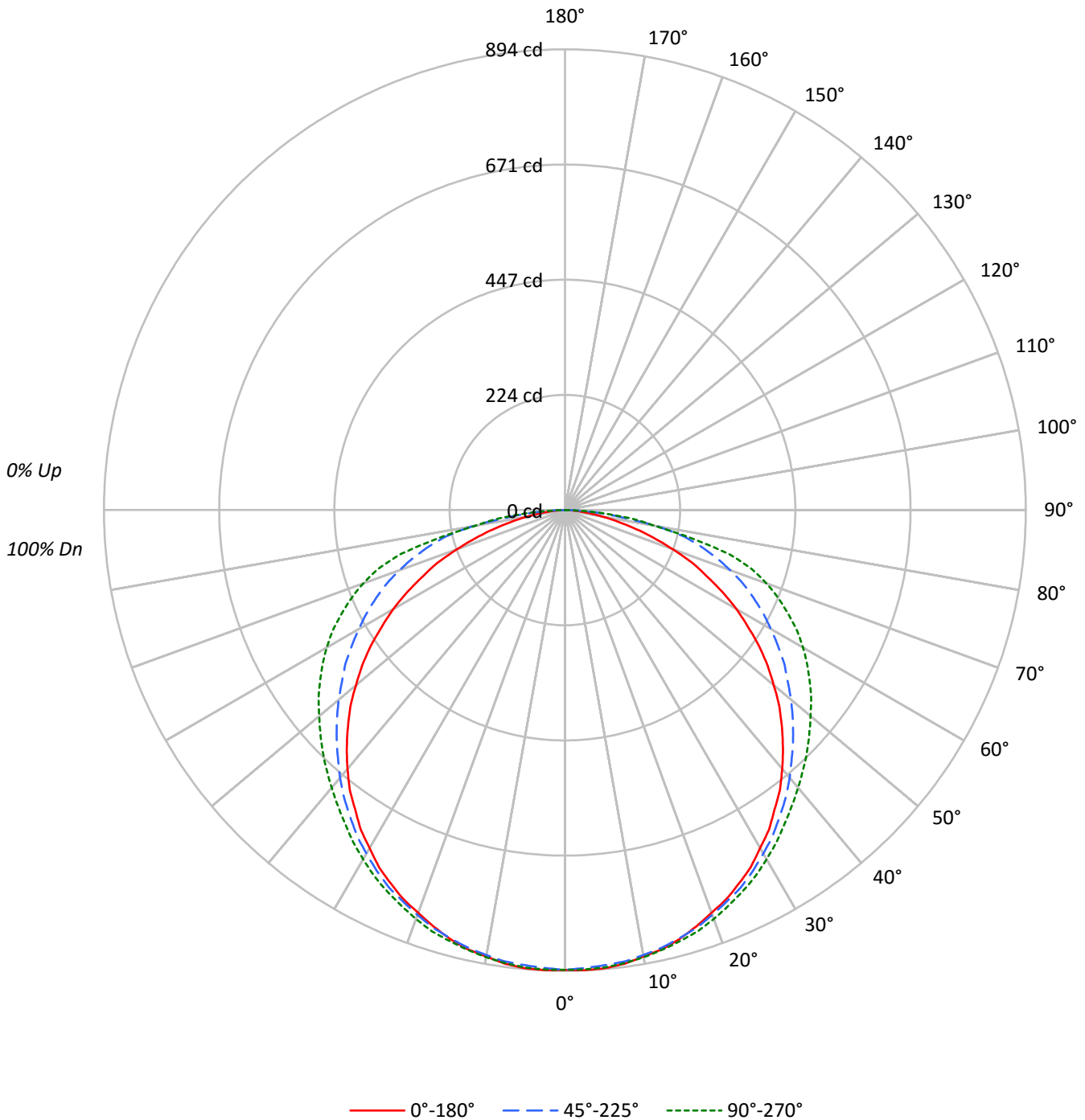
Lumens per Lamp: N/A  
Luminaire Lumens: 2837.0 lumens  
Efficiency: N/A  
Efficacy: 66.9 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 42.4  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82				82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67				67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56				56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47				47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40				40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35				35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31				31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27				27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24				24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22				22

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1200	1200	1200
5°	1205	1197	1203
10°	1202	1198	1204
15°	1200	1198	1205
20°	1191	1197	1209
25°	1187	1199	1212
30°	1176	1196	1216
35°	1165	1193	1220
40°	1152	1191	1236
45°	1133	1192	1264
50°	1108	1199	1302
55°	1079	1218	1360
60°	1034	1242	1435
65°	968	1286	1523
70°	880	1345	1638
75°	746	1419	1712
80°	589	1428	1385
85°	434	1087	1216



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.6	3.0
10°-20°	243.6	8.6
20°-30°	372.5	13.1
30°-40°	455.3	16.0
40°-50°	485.3	17.1
50°-60°	464.0	16.4
60°-70°	393.1	13.9
70°-80°	264.2	9.3
80°-90°	74.5	2.6
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°	700.6	24.7
0°-40°	1156.0	40.7
0°-60°	2105.3	74.2
0°-90°	2837.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2837.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	892	892	892	892	892	
5°	892	891	886	891	891	85
15°	861	861	860	867	865	243
25°	799	802	808	815	816	368
35°	709	715	726	740	743	444
45°	595	605	626	653	664	459
55°	460	477	519	560	580	410
65°	304	335	404	457	478	302
75°	144	196	273	319	329	154
85°	28	58	70	76	79	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	892.2	892.2	892.2	892.2	892.2
2.5°	893.6	893.6	889.3	892.2	892.2
5°	892.2	890.7	886.5	890.7	890.7
7.5°	887.9	886.5	883.7	887.9	886.5
10°	879.5	879.5	876.7	880.9	880.9
12.5°	872.5	871.0	869.6	875.3	873.9
15°	861.2	861.2	859.8	866.8	865.4
17.5°	847.1	848.5	849.9	855.6	857.0
20°	831.6	834.5	835.9	844.3	844.3
22.5°	817.6	819.0	821.8	830.2	830.2
25°	799.3	802.1	807.7	814.8	816.2
27.5°	781.0	782.4	789.4	799.3	800.7
30°	757.1	761.3	769.7	781.0	782.4
32.5°	736.0	740.2	750.0	761.3	764.1
35°	709.2	714.9	726.1	740.2	743.0
37.5°	685.3	689.5	703.6	719.1	723.3
40°	655.7	664.2	678.3	696.6	703.6
42.5°	626.2	634.6	651.5	675.4	683.9
45°	595.2	605.1	626.2	652.9	664.2
47.5°	564.3	575.5	599.5	630.4	643.1
50°	529.1	543.2	572.7	607.9	622.0
52.5°	495.3	512.2	544.6	584.0	602.3
55°	460.1	477.0	519.3	560.1	579.8
57.5°	420.7	443.3	489.7	536.1	557.2
60°	384.2	405.3	461.6	512.2	533.3
62.5°	344.8	372.9	433.4	486.9	508.0
65°	304.0	334.9	403.9	457.3	478.4
67.5°	267.4	301.1	374.3	427.8	448.9
70°	223.7	266.0	341.9	395.4	416.5
72.5°	182.9	229.4	308.2	360.2	379.9
75°	143.5	195.6	273.0	319.4	329.3
77.5°	106.9	161.8	236.4	256.1	249.1
80°	76.0	129.5	184.3	174.5	178.7
82.5°	49.3	98.5	114.0	129.5	133.7
85°	28.1	57.7	70.4	76.0	78.8
87.5°	12.7	21.1	28.1	28.1	26.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)