

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: P310220

Luminaire Tested: **24FCZ2-50-UNV-L82765-RDP-CA08-W2A-U-2700K**

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: P310220  
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-CA08-W2A-U-2700K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC SHEET  
Light Source: (168) 2700K 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**

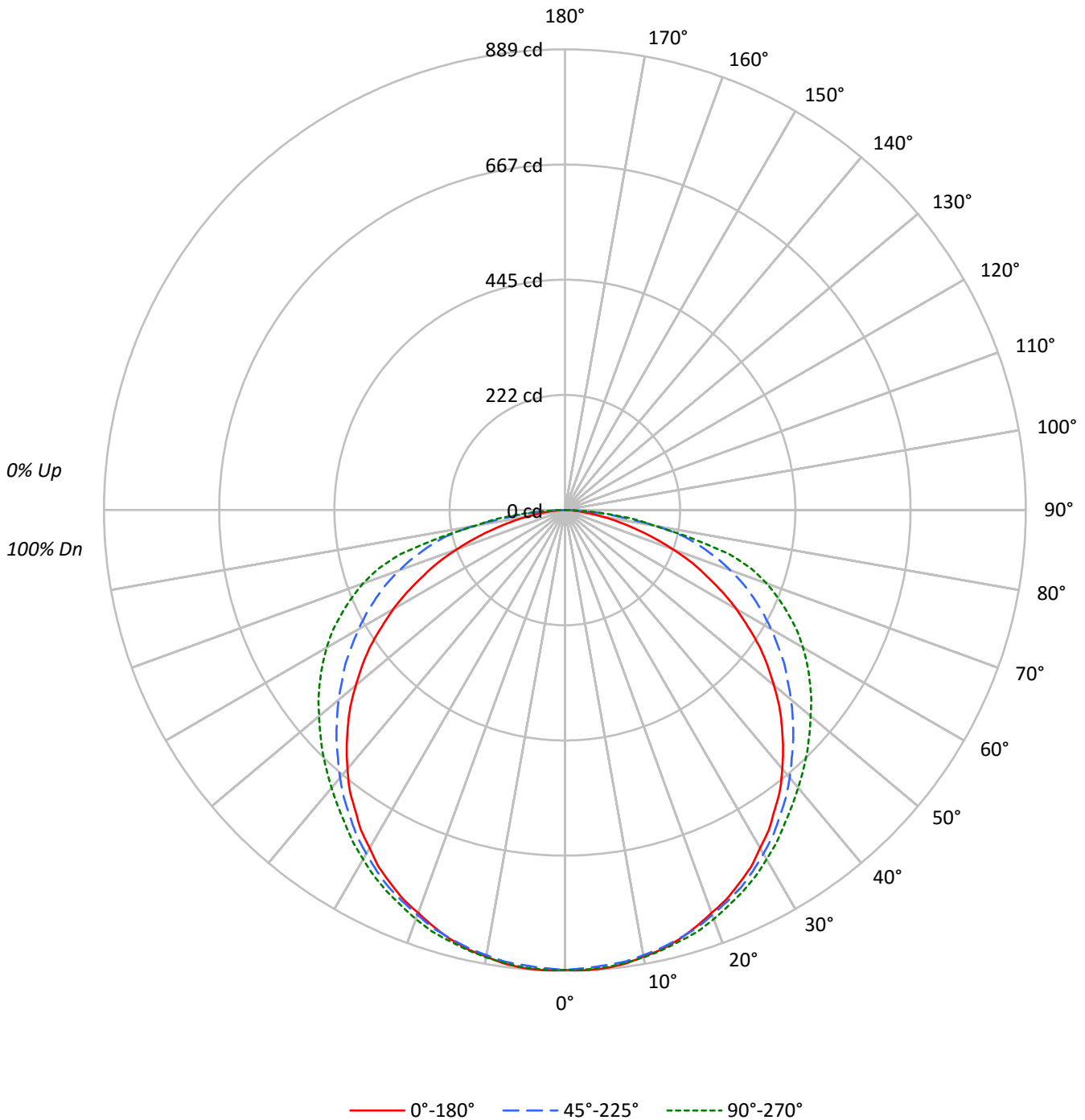
Lumens per Lamp: N/A  
Luminaire Lumens: 2822.0 lumens  
Efficiency: N/A  
Efficacy: 66.1 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 42.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
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				
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82				
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67				
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56				
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47				
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40				
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35				
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31				
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27				
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24				
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22				

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

	0°	45°	90°
0°	1194	1194	1194
5°	1199	1191	1197
10°	1195	1191	1197
15°	1193	1191	1199
20°	1184	1190	1202
25°	1180	1193	1205
30°	1170	1190	1209
35°	1159	1186	1214
40°	1146	1185	1229
45°	1127	1185	1257
50°	1102	1193	1295
55°	1074	1212	1353
60°	1028	1235	1428
65°	962	1279	1515
70°	876	1338	1630
75°	742	1412	1703
80°	586	1421	1378
85°	432	1081	1210



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.2	3.0
10°-20°	242.3	8.6
20°-30°	370.5	13.1
30°-40°	452.9	16.1
40°-50°	482.7	17.1
50°-60°	461.5	16.4
60°-70°	391.0	13.9
70°-80°	262.8	9.3
80°-90°	74.1	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°	696.9	24.7
0°-40°	1149.9	40.7
0°-60°	2094.1	74.2
0°-90°	2822.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2822.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	887	887	887	887	887	
5°	887	886	882	886	886	84
15°	857	857	855	862	861	242
25°	795	798	804	810	812	366
35°	706	711	722	736	739	442
45°	592	602	623	650	661	457
55°	458	474	516	557	577	408
65°	302	333	402	455	476	300
75°	143	195	272	318	328	153
85°	28	57	70	76	78	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	887.4	887.4	887.4	887.4	887.4
2.5°	888.8	888.8	884.6	887.4	887.4
5°	887.4	886.0	881.8	886.0	886.0
7.5°	883.2	881.8	879.0	883.2	881.8
10°	874.8	874.8	872.0	876.2	876.2
12.5°	867.8	866.4	865.0	870.6	869.2
15°	856.6	856.6	855.2	862.2	860.8
17.5°	842.6	844.0	845.4	851.0	852.4
20°	827.2	830.0	831.4	839.8	839.8
22.5°	813.3	814.7	817.5	825.8	825.8
25°	795.1	797.9	803.5	810.5	811.9
27.5°	776.9	778.3	785.3	795.1	796.5
30°	753.1	757.3	765.7	776.9	778.3
32.5°	732.1	736.3	746.1	757.3	760.1
35°	705.5	711.1	722.3	736.3	739.1
37.5°	681.7	685.9	699.9	715.3	719.5
40°	652.3	660.7	674.7	692.9	699.9
42.5°	622.9	631.3	648.1	671.9	680.3
45°	592.1	601.9	622.9	649.5	660.7
47.5°	561.3	572.5	596.3	627.1	639.7
50°	526.3	540.3	569.7	604.7	618.7
52.5°	492.7	509.5	541.7	580.9	599.1
55°	457.7	474.5	516.5	557.1	576.7
57.5°	418.5	440.9	487.1	533.3	554.3
60°	382.1	403.1	459.1	509.5	530.5
62.5°	342.9	370.9	431.1	484.3	505.3
65°	302.3	333.1	401.7	454.9	475.9
67.5°	266.0	299.5	372.3	425.5	446.5
70°	222.6	264.6	340.1	393.3	414.3
72.5°	182.0	228.2	306.5	358.3	377.9
75°	142.8	194.6	271.6	317.7	327.5
77.5°	106.4	161.0	235.2	254.8	247.8
80°	75.6	128.8	183.4	173.6	177.8
82.5°	49.0	98.0	113.4	128.8	133.0
85°	28.0	57.4	70.0	75.6	78.4
87.5°	12.6	21.0	28.0	28.0	26.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)