

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: P310041

Luminaire Tested: **24FCZ2-40-UNV-L82765-RDP-CA08-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: P310041  
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: 24FCZ2-40-UNV-L82765-RDP-CA08-W2A-U-3000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" 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**

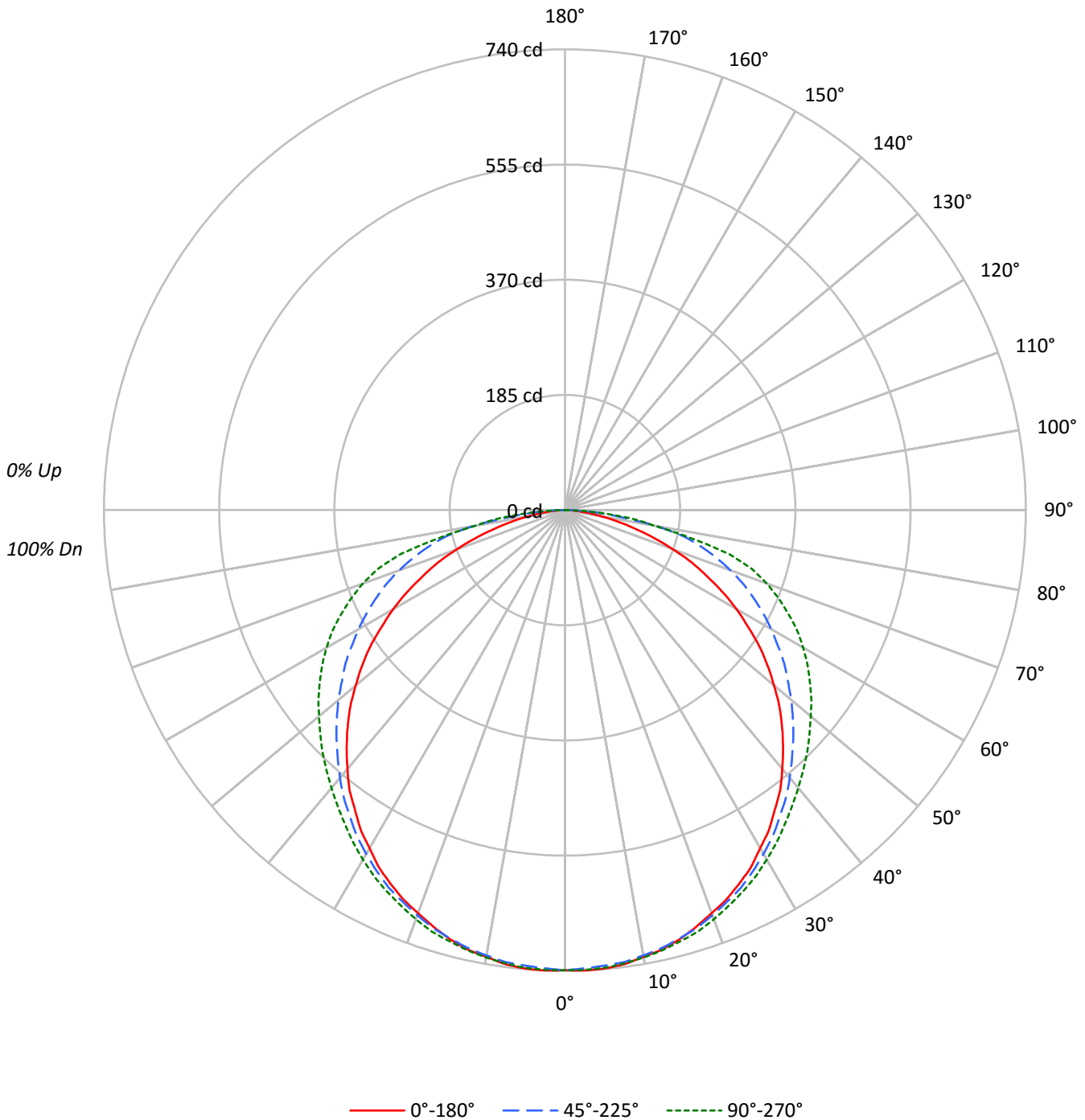
Lumens per Lamp: N/A  
Luminaire Lumens: 2350.0 lumens  
Efficiency: N/A  
Efficacy: 72.3 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 32.5  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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	68	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°	994	994	994
5°	998	992	996
10°	995	992	997
15°	994	992	999
20°	986	991	1001
25°	983	993	1004
30°	974	991	1007
35°	965	988	1011
40°	954	987	1024
45°	938	987	1047
50°	917	993	1078
55°	894	1009	1126
60°	856	1029	1189
65°	802	1065	1262
70°	729	1114	1357
75°	618	1175	1418
80°	487	1183	1147
85°	360	900	1008



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.1	3.0
10°-20°	201.8	8.6
20°-30°	308.5	13.1
30°-40°	377.2	16.0
40°-50°	402.0	17.1
50°-60°	384.3	16.4
60°-70°	325.6	13.9
70°-80°	218.8	9.3
80°-90°	61.7	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°	580.4	24.7
0°-40°	957.5	40.7
0°-60°	1743.9	74.2
0°-90°	2350.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2350.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	739	739	739	739	739	
5°	739	738	734	738	738	70
15°	713	713	712	718	717	201
25°	662	664	669	675	676	305
35°	588	592	602	613	616	368
45°	493	501	519	541	550	380
55°	381	395	430	464	480	339
65°	252	277	334	379	396	250
75°	119	162	226	265	273	127
85°	23	48	58	63	65	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	739.0	739.0	739.0	739.0	739.0
2.5°	740.2	740.2	736.7	739.0	739.0
5°	739.0	737.8	734.3	737.8	737.8
7.5°	735.5	734.3	732.0	735.5	734.3
10°	728.5	728.5	726.2	729.7	729.7
12.5°	722.7	721.5	720.4	725.0	723.9
15°	713.4	713.4	712.2	718.0	716.9
17.5°	701.7	702.9	704.0	708.7	709.9
20°	688.9	691.2	692.4	699.4	699.4
22.5°	677.2	678.4	680.7	687.7	687.7
25°	662.1	664.4	669.1	674.9	676.1
27.5°	646.9	648.1	653.9	662.1	663.2
30°	627.1	630.6	637.6	646.9	648.1
32.5°	609.6	613.1	621.3	630.6	632.9
35°	587.5	592.1	601.5	613.1	615.5
37.5°	567.7	571.2	582.8	595.6	599.1
40°	543.2	550.2	561.8	577.0	582.8
42.5°	518.7	525.7	539.7	559.5	566.5
45°	493.1	501.2	518.7	540.9	550.2
47.5°	467.4	476.7	496.6	522.2	532.7
50°	438.3	449.9	474.4	503.6	515.2
52.5°	410.3	424.3	451.1	483.7	498.9
55°	381.2	395.1	430.1	463.9	480.2
57.5°	348.5	367.2	405.6	444.1	461.6
60°	318.2	335.7	382.3	424.3	441.8
62.5°	285.6	308.9	359.0	403.3	420.8
65°	251.8	277.4	334.5	378.8	396.3
67.5°	221.5	249.4	310.1	354.4	371.8
70°	185.3	220.3	283.2	327.5	345.0
72.5°	151.5	190.0	255.3	298.4	314.7
75°	118.9	162.0	226.1	264.6	272.8
77.5°	88.6	134.0	195.8	212.1	206.3
80°	62.9	107.2	152.7	144.5	148.0
82.5°	40.8	81.6	94.4	107.2	110.7
85°	23.3	47.8	58.3	62.9	65.3
87.5°	10.5	17.5	23.3	23.3	22.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)