

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: P313540

Luminaire Tested: **24FCZ2-40-UNV-L83050-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: P313540  
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-L83050-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**

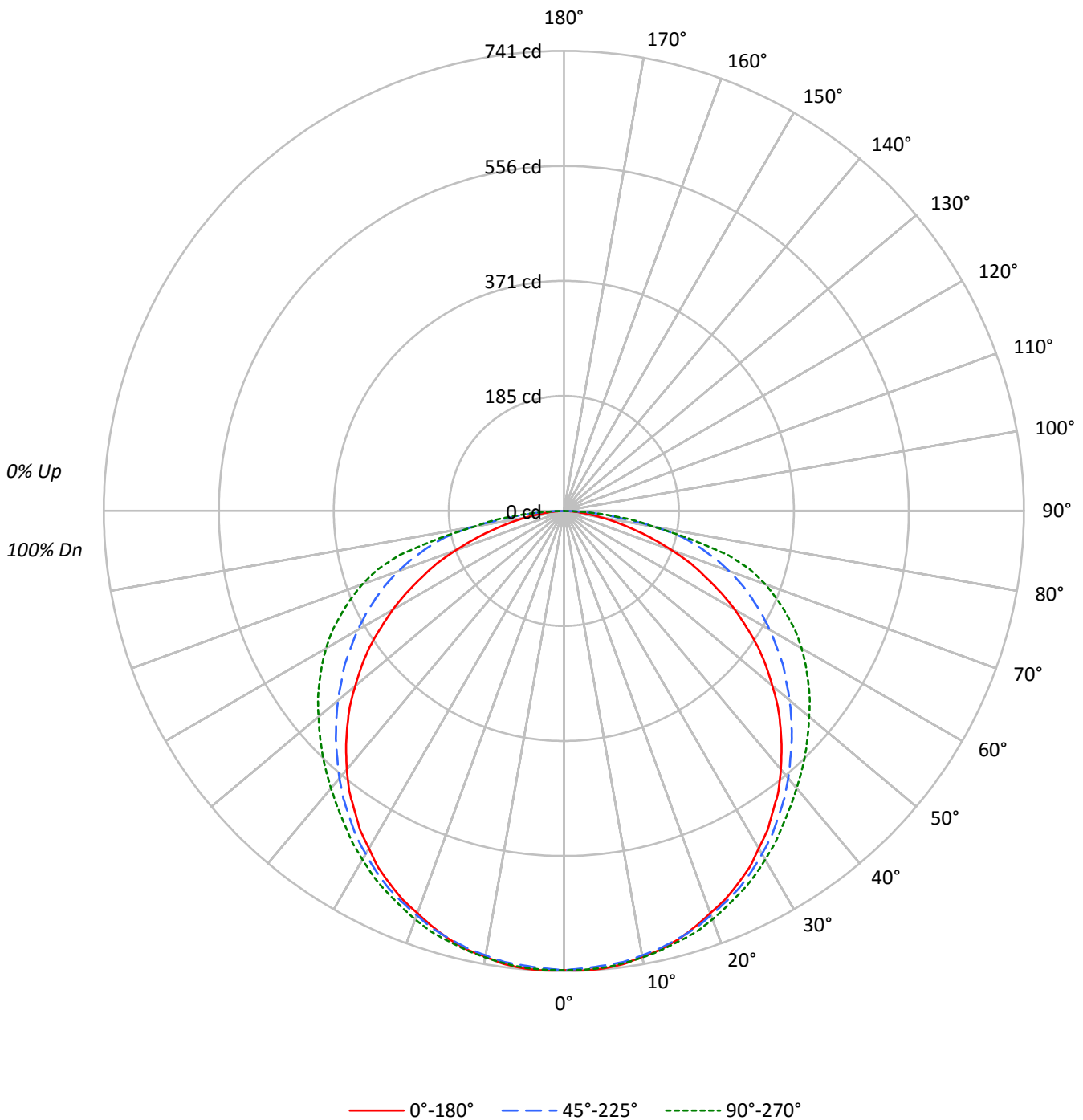
Lumens per Lamp: N/A  
Luminaire Lumens: 2352.0 lumens  
Efficiency: N/A  
Efficacy: 72.1 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 32.6  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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°	995	995	995
5°	999	993	997
10°	996	993	998
15°	995	993	999
20°	987	992	1002
25°	984	994	1004
30°	975	991	1008
35°	966	989	1012
40°	955	988	1025
45°	939	988	1048
50°	918	994	1079
55°	895	1010	1127
60°	857	1030	1190
65°	802	1066	1263
70°	730	1115	1358
75°	619	1176	1419
80°	488	1184	1148
85°	360	900	1008



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.2	3.0
10°-20°	201.9	8.6
20°-30°	308.8	13.1
30°-40°	377.5	16.0
40°-50°	402.3	17.1
50°-60°	384.7	16.4
60°-70°	325.9	13.9
70°-80°	219.0	9.3
80°-90°	61.8	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°	580.9	24.7
0°-40°	958.3	40.7
0°-60°	1745.3	74.2
0°-90°	2352.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2352.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	740	740	740	740	740	
5°	740	738	735	738	738	70
15°	714	714	713	719	718	201
25°	663	665	670	676	677	305
35°	588	593	602	614	616	368
45°	494	502	519	541	551	381
55°	382	396	430	464	481	340
65°	252	278	335	379	397	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°	739.6	739.6	739.6	739.6	739.6
2.5°	740.8	740.8	737.3	739.6	739.6
5°	739.6	738.5	735.0	738.5	738.5
7.5°	736.1	735.0	732.6	736.1	735.0
10°	729.1	729.1	726.8	730.3	730.3
12.5°	723.3	722.1	721.0	725.6	724.5
15°	714.0	714.0	712.8	718.6	717.5
17.5°	702.3	703.5	704.6	709.3	710.5
20°	689.5	691.8	693.0	700.0	700.0
22.5°	677.8	679.0	681.3	688.3	688.3
25°	662.6	665.0	669.6	675.5	676.6
27.5°	647.5	648.6	654.5	662.6	663.8
30°	627.6	631.1	638.1	647.5	648.6
32.5°	610.1	613.6	621.8	631.1	633.5
35°	588.0	592.6	602.0	613.6	616.0
37.5°	568.1	571.6	583.3	596.1	599.6
40°	543.6	550.6	562.3	577.5	583.3
42.5°	519.1	526.1	540.1	560.0	567.0
45°	493.5	501.6	519.1	541.3	550.6
47.5°	467.8	477.1	497.0	522.6	533.1
50°	438.6	450.3	474.8	504.0	515.6
52.5°	410.7	424.6	451.5	484.1	499.3
55°	381.5	395.5	430.5	464.3	480.6
57.5°	348.8	367.5	406.0	444.5	462.0
60°	318.5	336.0	382.7	424.6	442.1
62.5°	285.8	309.2	359.3	403.7	421.1
65°	252.0	277.7	334.8	379.2	396.7
67.5°	221.7	249.7	310.3	354.7	372.2
70°	185.5	220.5	283.5	327.8	345.3
72.5°	151.7	190.2	255.5	298.7	315.0
75°	119.0	162.2	226.3	264.8	273.0
77.5°	88.7	134.2	196.0	212.3	206.5
80°	63.0	107.3	152.8	144.7	148.2
82.5°	40.8	81.7	94.5	107.3	110.8
85°	23.3	47.8	58.3	63.0	65.3
87.5°	10.5	17.5	23.3	23.3	22.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)