

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: P310042

Luminaire Tested: **24FCZ2-40-UNV-L82765-RDP-CA08-W2A-U-3500K**

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: P310042  
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-3500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC SHEET  
Light Source: (168) 3500K 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**

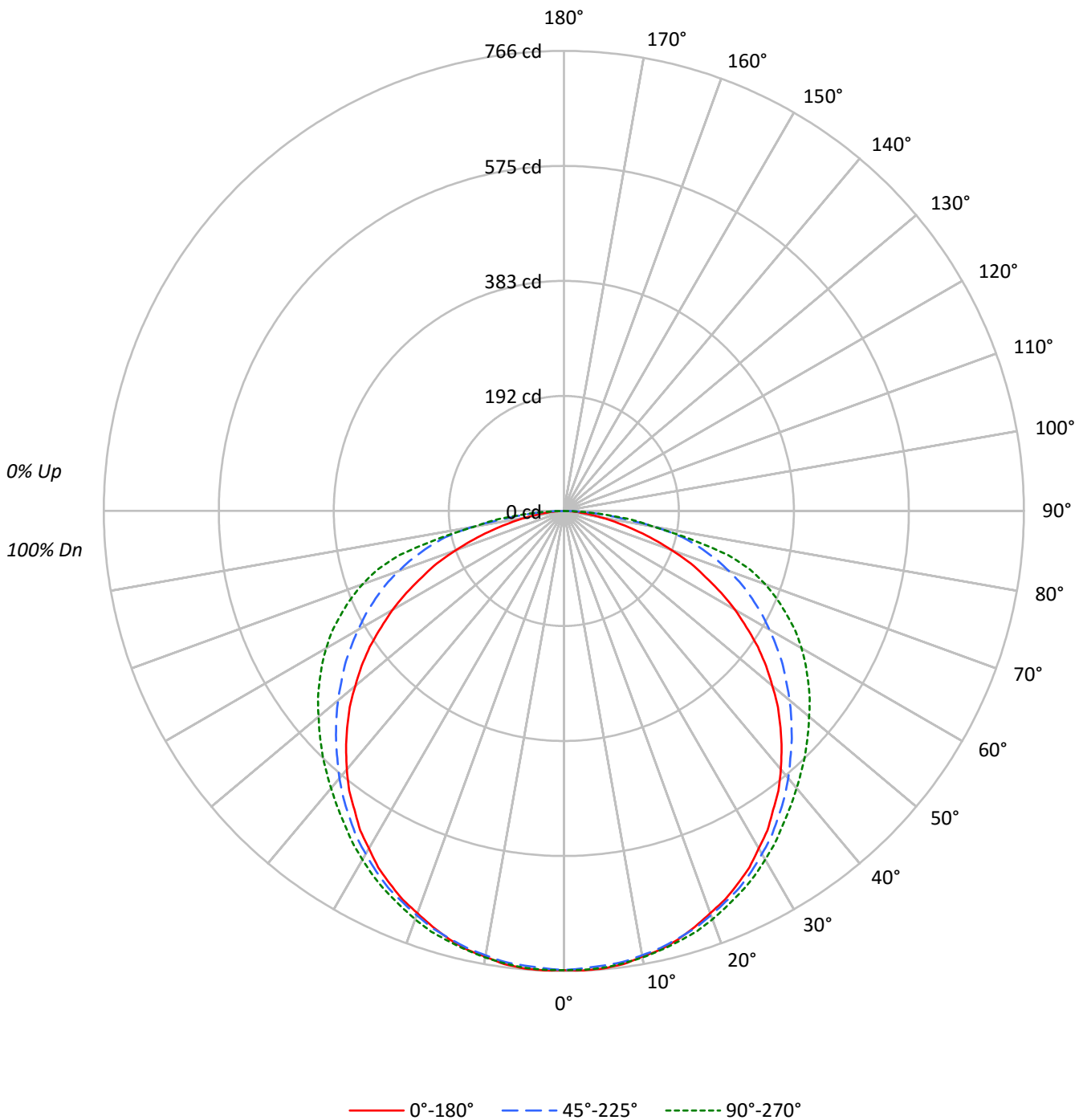
Lumens per Lamp: N/A  
Luminaire Lumens: 2431.0 lumens  
Efficiency: N/A  
Efficacy: 73.9 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 32.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	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°	1029	1029	1029
5°	1033	1026	1031
10°	1030	1026	1031
15°	1028	1026	1033
20°	1020	1025	1036
25°	1017	1027	1038
30°	1008	1025	1042
35°	998	1022	1046
40°	987	1021	1059
45°	971	1021	1083
50°	949	1027	1116
55°	925	1044	1165
60°	886	1064	1230
65°	829	1102	1305
70°	754	1153	1404
75°	639	1216	1467
80°	504	1224	1186
85°	372	931	1042



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.5	3.0
10°-20°	208.7	8.6
20°-30°	319.2	13.1
30°-40°	390.2	16.0
40°-50°	415.8	17.1
50°-60°	397.6	16.4
60°-70°	336.8	13.9
70°-80°	226.4	9.3
80°-90°	63.8	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°	600.4	24.7
0°-40°	990.5	40.7
0°-60°	1804.0	74.2
0°-90°	2431.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2431.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	764	764	764	764	764	
5°	764	763	760	763	763	73
15°	738	738	737	743	742	208
25°	685	687	692	698	699	316
35°	608	612	622	634	637	381
45°	510	518	537	560	569	393
55°	394	409	445	480	497	351
65°	260	287	346	392	410	259
75°	123	168	234	274	282	132
85°	24	49	60	65	68	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	764.5	764.5	764.5	764.5	764.5
2.5°	765.7	765.7	762.1	764.5	764.5
5°	764.5	763.3	759.7	763.3	763.3
7.5°	760.9	759.7	757.2	760.9	759.7
10°	753.6	753.6	751.2	754.8	754.8
12.5°	747.6	746.4	745.2	750.0	748.8
15°	738.0	738.0	736.7	742.8	741.6
17.5°	725.9	727.1	728.3	733.1	734.3
20°	712.6	715.0	716.2	723.5	723.5
22.5°	700.6	701.8	704.2	711.4	711.4
25°	684.9	687.3	692.1	698.2	699.4
27.5°	669.2	670.4	676.5	684.9	686.1
30°	648.7	652.3	659.6	669.2	670.4
32.5°	630.6	634.3	642.7	652.3	654.8
35°	607.7	612.5	622.2	634.3	636.7
37.5°	587.2	590.8	602.9	616.2	619.8
40°	561.9	569.1	581.2	596.9	602.9
42.5°	536.6	543.8	558.3	578.8	586.0
45°	510.1	518.5	536.6	559.5	569.1
47.5°	483.5	493.2	513.7	540.2	551.1
50°	453.4	465.4	490.8	520.9	533.0
52.5°	424.4	438.9	466.6	500.4	516.1
55°	394.3	408.8	444.9	479.9	496.8
57.5°	360.5	379.8	419.6	459.4	477.5
60°	329.2	347.3	395.5	438.9	457.0
62.5°	295.4	319.5	371.4	417.2	435.3
65°	260.5	287.0	346.1	391.9	410.0
67.5°	229.1	258.0	320.7	366.6	384.7
70°	191.7	227.9	293.0	338.8	356.9
72.5°	156.8	196.5	264.1	308.7	325.6
75°	123.0	167.6	233.9	273.7	282.2
77.5°	91.6	138.7	202.6	219.5	213.4
80°	65.1	110.9	158.0	149.5	153.1
82.5°	42.2	84.4	97.7	110.9	114.6
85°	24.1	49.4	60.3	65.1	67.5
87.5°	10.9	18.1	24.1	24.1	22.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)