

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: P310543

Luminaire Tested: **24FCZ2-30-UNV-L82765-CA08-W2A-U-6500K**

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: P310543  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-30-UNV-L82765-CA08-W2A-U-6500K  
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.08" ACRYLIC SHEET  
Light Source: (168) 6500K 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**

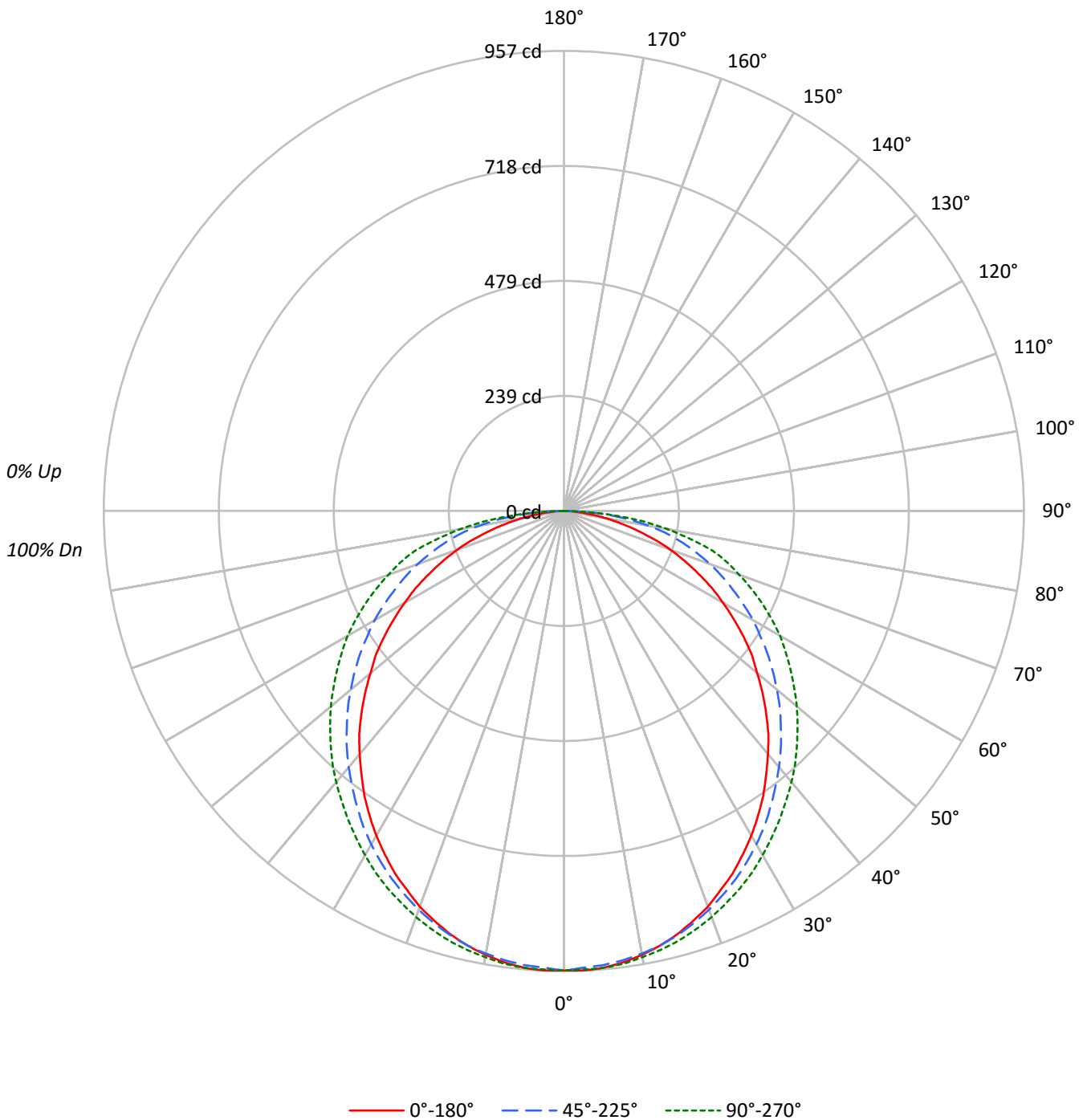
Lumens per Lamp: N/A  
Luminaire Lumens: 2898.0 lumens  
Efficiency: N/A  
Efficacy: 118.8 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 24.4  
Input Voltage (V): NR  
Input Current (A<sub>in</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	92	89	92	89	87	88	86	84	82				82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67				67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56				56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47				47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41				41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36				36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31				31
8	59	45	37	31	57	45	36	30	43	36	30	42	35	30	41	34	30	28				28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25				25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23				23

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

	0°	45°	90°
0°	1286	1286	1286
5°	1288	1280	1288
10°	1281	1277	1287
15°	1270	1272	1288
20°	1254	1264	1287
25°	1235	1255	1286
30°	1212	1244	1285
35°	1188	1232	1286
40°	1160	1223	1294
45°	1133	1215	1305
50°	1099	1212	1324
55°	1071	1213	1351
60°	1030	1224	1397
65°	982	1237	1448
70°	930	1275	1528
75°	830	1330	1669
80°	707	1408	1706
85°	505	1396	1633



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	90.4	3.1
10°-20°	258.6	8.9
20°-30°	390.6	13.5
30°-40°	470.8	16.2
40°-50°	494.3	17.1
50°-60°	462.4	16.0
60°-70°	381.9	13.2
70°-80°	260.2	9.0
80°-90°	88.7	3.1
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°	739.7	25.5
0°-40°	1210.5	41.8
0°-60°	2167.2	74.8
0°-90°	2898.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2898.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	956	956	956	956	956	
5°	954	953	948	954	954	91
15°	912	912	913	923	925	257
25°	832	836	845	862	866	383
35°	723	731	750	775	783	452
45°	595	608	638	673	686	459
55°	457	475	517	560	576	408
65°	309	335	388	438	455	306
75°	160	196	256	304	321	170
85°	33	64	90	102	106	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	955.7	955.7	955.7	955.7	955.7
2.5°	956.7	955.7	950.9	955.7	954.8
5°	953.8	952.9	948.0	953.8	953.8
7.5°	947.1	947.1	942.3	949.0	950.0
10°	937.5	937.5	934.6	942.3	942.3
12.5°	925.9	925.9	925.9	933.6	934.6
15°	911.5	912.5	913.4	923.0	925.0
17.5°	894.2	896.1	899.0	910.5	912.5
20°	875.9	877.9	882.7	896.1	899.0
22.5°	852.9	857.7	864.4	879.8	882.7
25°	831.7	835.5	845.2	861.5	866.3
27.5°	805.7	811.5	824.0	841.3	848.0
30°	779.8	785.5	800.9	821.1	826.9
32.5°	751.9	760.5	776.9	798.0	804.8
35°	723.1	730.7	750.0	775.0	782.7
37.5°	691.3	701.9	723.1	750.0	759.6
40°	660.6	672.1	696.1	725.0	736.5
42.5°	629.8	641.3	668.2	700.9	712.5
45°	595.2	607.7	638.4	673.1	685.6
47.5°	560.6	575.9	609.6	646.1	659.6
50°	525.0	542.3	578.8	617.3	632.7
52.5°	493.3	509.6	548.1	589.4	603.8
55°	456.7	475.0	517.3	559.6	575.9
57.5°	419.2	439.4	484.6	530.8	547.1
60°	382.7	404.8	454.8	500.9	519.2
62.5°	347.1	369.2	421.1	469.2	487.5
65°	308.6	334.6	388.4	437.5	454.8
67.5°	272.1	300.0	356.7	404.8	422.1
70°	236.5	263.5	324.0	371.1	388.4
72.5°	198.1	228.8	289.4	338.4	356.7
75°	159.6	196.1	255.8	303.8	321.1
77.5°	124.0	161.5	221.1	260.6	269.2
80°	91.3	129.8	181.7	209.6	220.2
82.5°	58.7	97.1	138.5	158.6	167.3
85°	32.7	64.4	90.4	101.9	105.8
87.5°	13.5	27.9	36.5	41.3	41.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)