

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: P310225

Luminaire Tested: **24FCZ2-50-UNV-L82765-RDP-CA08-W2A-U-5000K**

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: P310225  
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-5000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC SHEET  
Light Source: (168) 5000K 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**

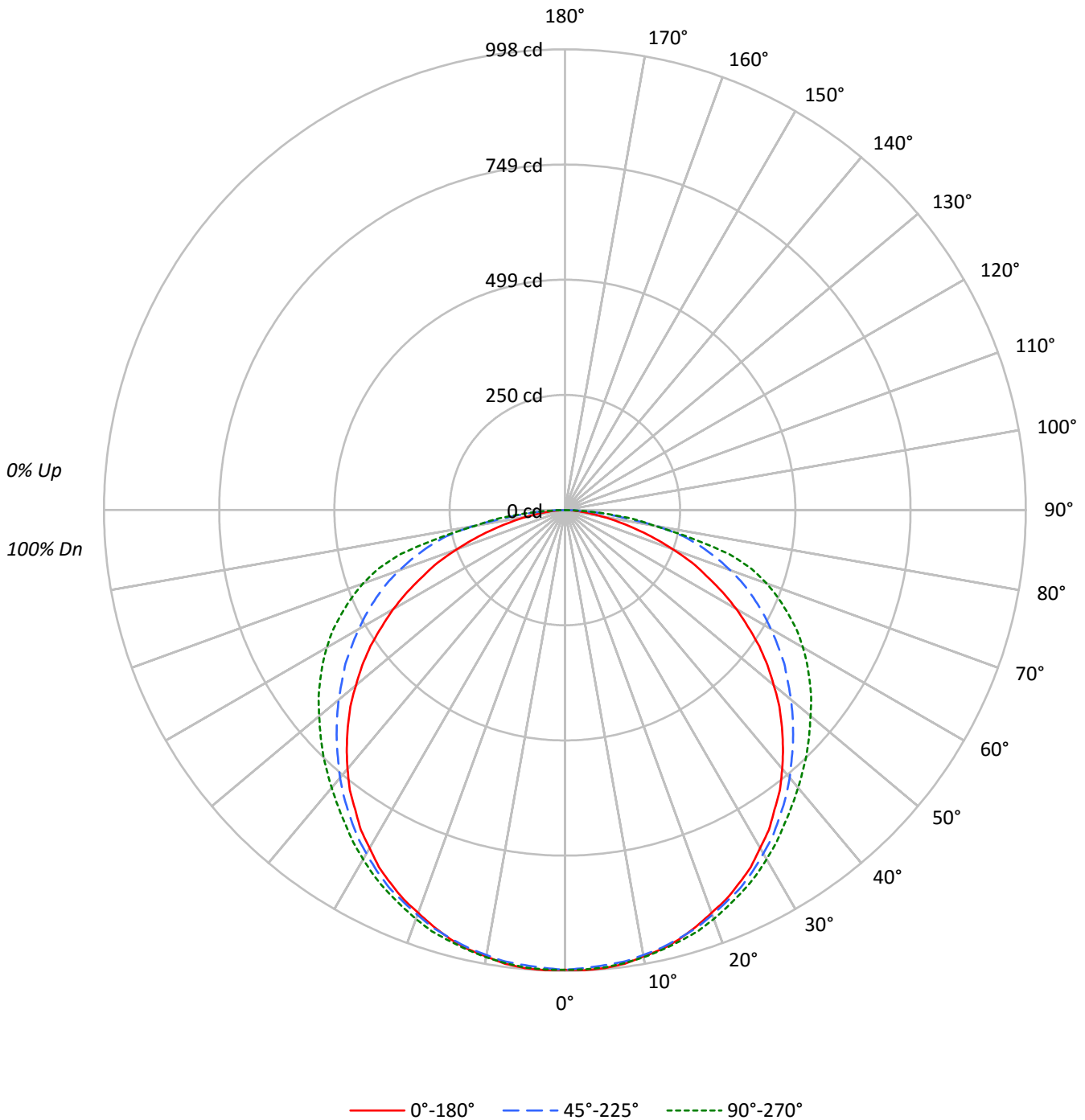
Lumens per Lamp: N/A  
Luminaire Lumens: 3167.0 lumens  
Efficiency: N/A  
Efficacy: 72.5 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 43.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
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



TEST NUMBER: P310225

CATALOG NUMBER: 24FCZ2-50-UNV-L82765-RDP-CA08-W2A-U-5000K

### Luminous Intensity Polar Plot





TEST NUMBER: P310225

CATALOG NUMBER: 24FCZ2-50-UNV-L82765-RDP-CA08-W2A-U-5000K

**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°	1340	1340	1340
5°	1345	1337	1343
10°	1341	1337	1344
15°	1339	1337	1346
20°	1329	1336	1350
25°	1325	1339	1353
30°	1313	1335	1357
35°	1300	1331	1362
40°	1286	1330	1379
45°	1264	1330	1411
50°	1236	1338	1453
55°	1205	1360	1518
60°	1154	1386	1602
65°	1080	1435	1700
70°	983	1502	1829
75°	833	1584	1911
80°	657	1595	1546
85°	485	1212	1359



TEST NUMBER: P310225

CATALOG NUMBER: 24FCZ2-50-UNV-L82765-RDP-CA08-W2A-U-5000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.5	3.0
10°-20°	271.9	8.6
20°-30°	415.8	13.1
30°-40°	508.3	16.0
40°-50°	541.7	17.1
50°-60°	518.0	16.4
60°-70°	438.8	13.9
70°-80°	294.9	9.3
80°-90°	83.2	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°	782.2	24.7
0°-40°	1290.4	40.7
0°-60°	2350.1	74.2
0°-90°	3167.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3167.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	996	996	996	996	996	
5°	996	994	990	994	994	95
15°	961	961	960	968	966	271
25°	892	895	902	910	911	411
35°	792	798	811	826	829	496
45°	664	676	699	729	742	513
55°	514	532	580	625	647	457
65°	339	374	451	510	534	337
75°	160	218	305	357	368	172
85°	31	64	78	85	88	39
90°	0	0	0	0	0	



TEST NUMBER: P310225

CATALOG NUMBER: 24FCZ2-50-UNV-L82765-RDP-CA08-W2A-U-5000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	995.9	995.9	995.9	995.9	995.9
2.5°	997.5	997.5	992.8	995.9	995.9
5°	995.9	994.4	989.6	994.4	994.4
7.5°	991.2	989.6	986.5	991.2	989.6
10°	981.8	981.8	978.7	983.4	983.4
12.5°	973.9	972.4	970.8	977.1	975.5
15°	961.4	961.4	959.8	967.7	966.1
17.5°	945.7	947.2	948.8	955.1	956.7
20°	928.4	931.5	933.1	942.5	942.5
22.5°	912.7	914.2	917.4	926.8	926.8
25°	892.3	895.4	901.7	909.5	911.1
27.5°	871.8	873.4	881.3	892.3	893.8
30°	845.1	849.8	859.3	871.8	873.4
32.5°	821.6	826.3	837.3	849.8	853.0
35°	791.7	798.0	810.6	826.3	829.4
37.5°	765.0	769.7	785.4	802.7	807.4
40°	732.0	741.5	757.2	777.6	785.4
42.5°	699.0	708.5	727.3	754.0	763.4
45°	664.5	675.5	699.0	728.9	741.5
47.5°	629.9	642.5	669.2	703.7	717.9
50°	590.6	606.4	639.3	678.6	694.3
52.5°	552.9	571.8	607.9	651.9	672.3
55°	513.7	532.5	579.7	625.2	647.2
57.5°	469.7	494.8	546.7	598.5	622.1
60°	428.8	452.4	515.2	571.8	595.4
62.5°	384.9	416.3	483.8	543.5	567.1
65°	339.3	373.9	450.8	510.5	534.1
67.5°	298.5	336.2	417.9	477.5	501.1
70°	249.8	296.9	381.7	441.4	465.0
72.5°	204.2	256.1	344.0	402.1	424.1
75°	160.2	218.4	304.7	356.6	367.6
77.5°	119.4	180.6	263.9	285.9	278.0
80°	84.8	144.5	205.8	194.8	199.5
82.5°	55.0	110.0	127.2	144.5	149.2
85°	31.4	64.4	78.5	84.8	88.0
87.5°	14.1	23.6	31.4	31.4	29.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)