

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: P310244

Luminaire Tested: **24FCZ2-50-UNV-L82765-RDP-CP125-W2A-U-5500K**

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: P310244  
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-CP125-W2A-U-5500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET  
Light Source: (168) 5500K 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**

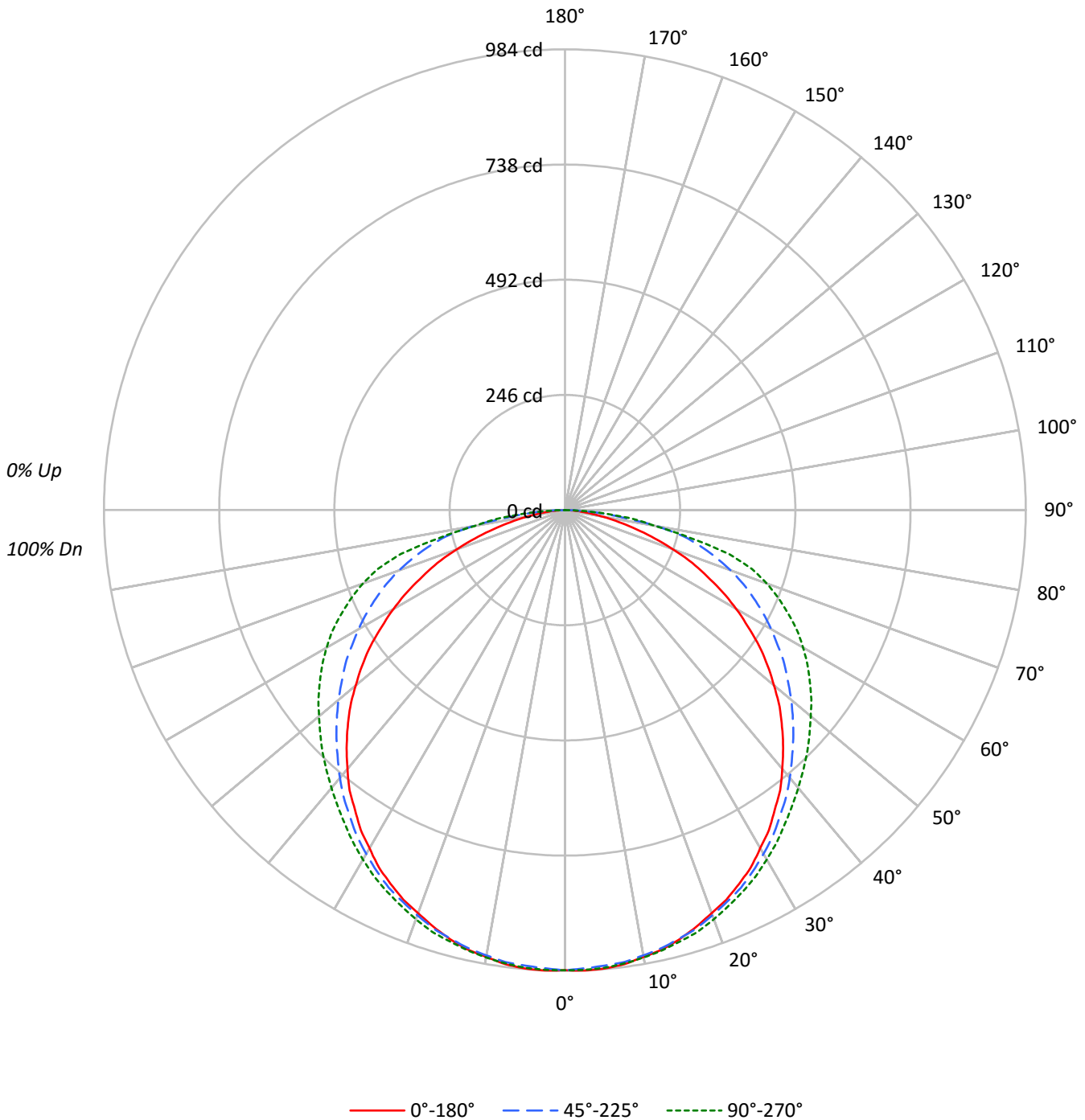
Lumens per Lamp: N/A  
Luminaire Lumens: 3125.1 lumens  
Efficiency: N/A  
Efficacy: 71.2 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 43.9  
Input Voltage (V): NR  
Input Current (A<sub>in</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



TEST NUMBER: P310244

CATALOG NUMBER: 24FCZ2-50-UNV-L82765-RDP-CP125-W2A-U-5500K

### Luminous Intensity Polar Plot





TEST NUMBER: P310244

CATALOG NUMBER: 24FCZ2-50-UNV-L82765-RDP-CP125-W2A-U-5500K

**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°	1322	1322	1322
5°	1327	1319	1325
10°	1324	1319	1326
15°	1321	1319	1328
20°	1312	1318	1332
25°	1307	1321	1335
30°	1296	1317	1339
35°	1283	1314	1344
40°	1269	1312	1361
45°	1248	1313	1392
50°	1220	1321	1434
55°	1189	1342	1498
60°	1139	1368	1581
65°	1066	1416	1678
70°	970	1482	1805
75°	822	1563	1886
80°	649	1574	1526
85°	479	1196	1340



TEST NUMBER: P310244

CATALOG NUMBER: 24FCZ2-50-UNV-L82765-RDP-CP125-W2A-U-5500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.2	3.0
10°-20°	268.3	8.6
20°-30°	410.3	13.1
30°-40°	501.5	16.0
40°-50°	534.6	17.1
50°-60°	511.1	16.4
60°-70°	433.0	13.9
70°-80°	291.0	9.3
80°-90°	82.1	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°	771.8	24.7
0°-40°	1273.3	40.7
0°-60°	2319.0	74.2
0°-90°	3125.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3125.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	983	983	983	983	983	
5°	983	981	976	981	981	93
15°	949	949	947	955	953	267
25°	880	884	890	898	899	406
35°	781	787	800	815	818	489
45°	656	666	690	719	732	506
55°	507	526	572	617	639	451
65°	335	369	445	504	527	332
75°	158	216	301	352	363	169
85°	31	64	78	84	87	38
90°	0	0	0	0	0	



TEST NUMBER: P310244

CATALOG NUMBER: 24FCZ2-50-UNV-L82765-RDP-CP125-W2A-U-5500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	982.7	982.7	982.7	982.7	982.7
2.5°	984.3	984.3	979.6	982.7	982.7
5°	982.7	981.2	976.5	981.2	981.2
7.5°	978.1	976.5	973.4	978.1	976.5
10°	968.8	968.8	965.7	970.3	970.3
12.5°	961.0	959.5	957.9	964.1	962.6
15°	948.6	948.6	947.1	954.8	953.3
17.5°	933.1	934.7	936.2	942.4	944.0
20°	916.1	919.2	920.7	930.0	930.0
22.5°	900.6	902.1	905.2	914.5	914.5
25°	880.4	883.5	889.7	897.5	899.0
27.5°	860.3	861.8	869.6	880.4	882.0
30°	833.9	838.6	847.9	860.3	861.8
32.5°	810.7	815.3	826.2	838.6	841.7
35°	781.2	787.4	799.8	815.3	818.4
37.5°	754.9	759.5	775.0	792.1	796.7
40°	722.3	731.6	747.1	767.3	775.0
42.5°	689.8	699.1	717.7	744.0	753.3
45°	655.7	666.5	689.8	719.2	731.6
47.5°	621.6	634.0	660.3	694.4	708.4
50°	582.8	598.3	630.9	669.6	685.1
52.5°	545.6	564.2	599.9	643.3	663.4
55°	506.9	525.5	572.0	616.9	638.6
57.5°	463.5	488.3	539.4	590.6	613.8
60°	423.2	446.4	508.4	564.2	587.5
62.5°	379.8	410.8	477.4	536.3	559.6
65°	334.8	368.9	444.9	503.8	527.0
67.5°	294.5	331.7	412.3	471.2	494.5
70°	246.5	293.0	376.7	435.6	458.8
72.5°	201.5	252.7	339.5	396.8	418.5
75°	158.1	215.5	300.7	351.9	362.7
77.5°	117.8	178.3	260.4	282.1	274.4
80°	83.7	142.6	203.1	192.2	196.9
82.5°	54.3	108.5	125.6	142.6	147.3
85°	31.0	63.6	77.5	83.7	86.8
87.5°	14.0	23.3	31.0	31.0	29.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)