

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: P310236

Luminaire Tested: **24FCZ2-50-UNV-L82765-RDP-CA125-W2A-U-5700K**

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: P310236  
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-CA125-W2A-U-5700K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET  
Light Source: (168) 5700K 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**

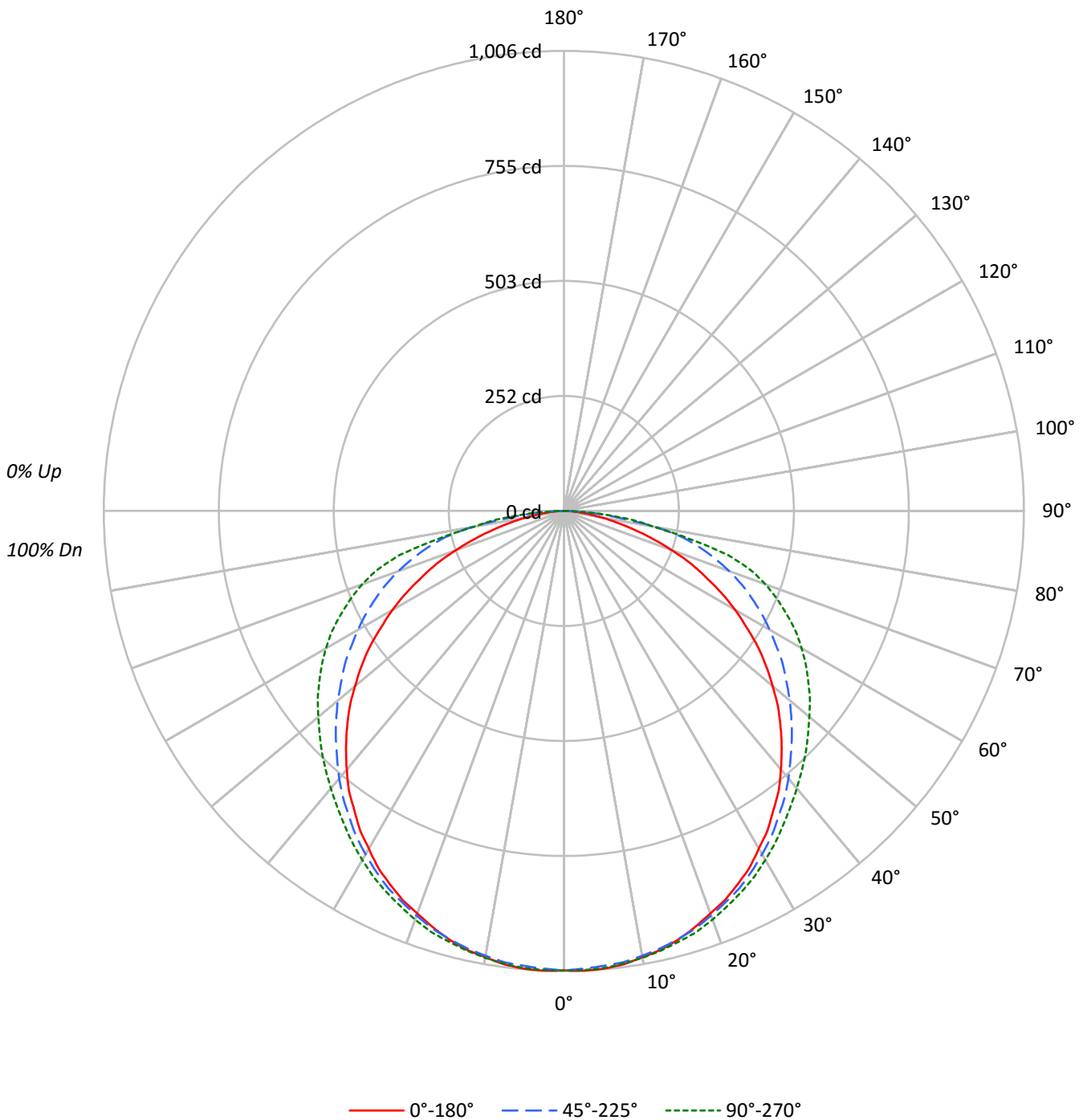
Lumens per Lamp: N/A  
Luminaire Lumens: 3195.0 lumens  
Efficiency: N/A  
Efficacy: 72.8 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 43.9  
Input Voltage (V): NR  
Input Current (A<sub>in</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



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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°	1352	1352	1352
5°	1357	1348	1355
10°	1353	1349	1355
15°	1351	1349	1358
20°	1341	1348	1362
25°	1336	1351	1365
30°	1325	1347	1369
35°	1312	1343	1374
40°	1297	1342	1392
45°	1276	1342	1423
50°	1247	1350	1466
55°	1216	1372	1532
60°	1164	1399	1616
65°	1090	1448	1715
70°	991	1515	1845
75°	840	1598	1928
80°	663	1609	1560
85°	489	1223	1369



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.3	3.0
10°-20°	274.3	8.6
20°-30°	419.5	13.1
30°-40°	512.8	16.0
40°-50°	546.5	17.1
50°-60°	522.5	16.4
60°-70°	442.7	13.9
70°-80°	297.5	9.3
80°-90°	83.9	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°	789.1	24.7
0°-40°	1301.9	40.7
0°-60°	2370.9	74.2
0°-90°	3195.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3195.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1005	1005	1005	1005	1005	
5°	1005	1003	998	1003	1003	95
15°	970	970	968	976	975	273
25°	900	903	910	918	919	415
35°	799	805	818	834	837	500
45°	670	681	705	735	748	517
55°	518	537	585	631	653	462
65°	342	377	455	515	539	340
75°	162	220	307	360	371	173
85°	32	65	79	86	89	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1004.7	1004.7	1004.7	1004.7	1004.7
2.5°	1006.3	1006.3	1001.6	1004.7	1004.7
5°	1004.7	1003.2	998.4	1003.2	1003.2
7.5°	1000.0	998.4	995.2	1000.0	998.4
10°	990.5	990.5	987.3	992.1	992.1
12.5°	982.5	981.0	979.4	985.7	984.1
15°	969.9	969.9	968.3	976.2	974.6
17.5°	954.0	955.6	957.2	963.5	965.1
20°	936.6	939.8	941.3	950.9	950.9
22.5°	920.7	922.3	925.5	935.0	935.0
25°	900.1	903.3	909.7	917.6	919.2
27.5°	879.5	881.1	889.0	900.1	901.7
30°	852.6	857.4	866.9	879.5	881.1
32.5°	828.8	833.6	844.7	857.4	860.5
35°	798.7	805.1	817.7	833.6	836.8
37.5°	771.8	776.5	792.4	809.8	814.6
40°	738.5	748.0	763.9	784.5	792.4
42.5°	705.2	714.7	733.7	760.7	770.2
45°	670.4	681.4	705.2	735.3	748.0
47.5°	635.5	648.2	675.1	710.0	724.2
50°	595.9	611.7	645.0	684.6	700.5
52.5°	557.8	576.9	613.3	657.7	678.3
55°	518.2	537.2	584.8	630.7	652.9
57.5°	473.8	499.2	551.5	603.8	627.6
60°	432.6	456.4	519.8	576.9	600.6
62.5°	388.3	420.0	488.1	548.3	572.1
65°	342.3	377.2	454.8	515.0	538.8
67.5°	301.1	339.1	421.5	481.8	505.5
70°	252.0	299.5	385.1	445.3	469.1
72.5°	206.0	258.3	347.1	405.7	427.9
75°	161.6	220.3	307.4	359.7	370.8
77.5°	120.4	182.2	266.2	288.4	280.5
80°	85.6	145.8	207.6	196.5	201.3
82.5°	55.5	110.9	128.4	145.8	150.6
85°	31.7	65.0	79.2	85.6	88.7
87.5°	14.3	23.8	31.7	31.7	30.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)