

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: P310227

Luminaire Tested: **24FCZ2-50-UNV-L82765-RDP-CA08-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: P310227  
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-5700K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" 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**

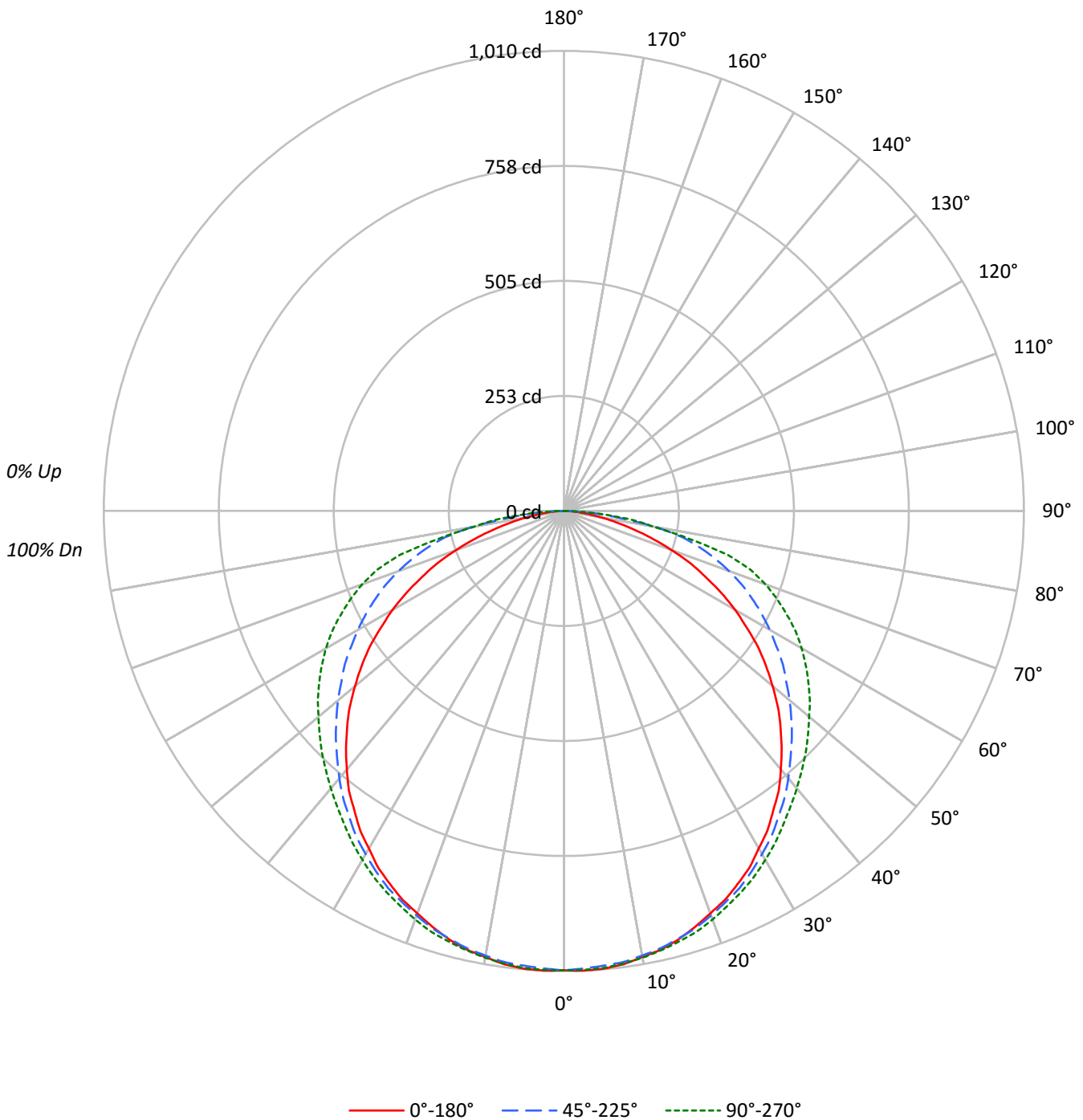
Lumens per Lamp: N/A  
Luminaire Lumens: 3207.0 lumens  
Efficiency: N/A  
Efficacy: 73.1 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 43.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	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°	1357	1357	1357
5°	1362	1353	1360
10°	1358	1354	1361
15°	1356	1354	1363
20°	1346	1353	1367
25°	1341	1356	1370
30°	1330	1352	1374
35°	1317	1348	1380
40°	1302	1347	1397
45°	1280	1347	1429
50°	1252	1355	1472
55°	1220	1377	1537
60°	1169	1404	1622
65°	1094	1453	1722
70°	995	1520	1852
75°	844	1604	1935
80°	666	1615	1565
85°	491	1227	1376



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.7	3.0
10°-20°	275.3	8.6
20°-30°	421.0	13.1
30°-40°	514.7	16.0
40°-50°	548.6	17.1
50°-60°	524.5	16.4
60°-70°	444.3	13.9
70°-80°	298.6	9.3
80°-90°	84.2	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°	792.0	24.7
0°-40°	1306.7	40.7
0°-60°	2379.8	74.2
0°-90°	3207.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3207.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1008	1008	1008	1008	1008	
5°	1008	1007	1002	1007	1007	96
15°	974	974	972	980	978	274
25°	904	907	913	921	923	416
35°	802	808	821	837	840	502
45°	673	684	708	738	751	519
55°	520	539	587	633	655	463
65°	344	379	456	517	541	341
75°	162	221	309	361	372	174
85°	32	65	80	86	89	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1008.5	1008.5	1008.5	1008.5	1008.5
2.5°	1010.1	1010.1	1005.3	1008.5	1008.5
5°	1008.5	1006.9	1002.1	1006.9	1006.9
7.5°	1003.7	1002.1	999.0	1003.7	1002.1
10°	994.2	994.2	991.0	995.8	995.8
12.5°	986.2	984.6	983.1	989.4	987.8
15°	973.5	973.5	971.9	979.9	978.3
17.5°	957.6	959.2	960.8	967.2	968.7
20°	940.1	943.3	944.9	954.4	954.4
22.5°	924.2	925.8	929.0	938.5	938.5
25°	903.5	906.7	913.1	921.0	922.6
27.5°	882.8	884.4	892.4	903.5	905.1
30°	855.8	860.6	870.1	882.8	884.4
32.5°	831.9	836.7	847.8	860.6	863.8
35°	801.7	808.1	820.8	836.7	839.9
37.5°	774.7	779.4	795.4	812.9	817.6
40°	741.3	750.8	766.7	787.4	795.4
42.5°	707.9	717.4	736.5	763.5	773.1
45°	672.9	684.0	707.9	738.1	750.8
47.5°	637.9	650.6	677.6	712.6	727.0
50°	598.1	614.0	647.4	687.2	703.1
52.5°	559.9	579.0	615.6	660.1	680.8
55°	520.2	539.3	587.0	633.1	655.4
57.5°	475.6	501.1	553.6	606.1	629.9
60°	434.3	458.1	521.8	579.0	602.9
62.5°	389.7	421.5	489.9	550.4	574.2
65°	343.6	378.6	456.5	517.0	540.8
67.5°	302.2	340.4	423.1	483.6	507.4
70°	252.9	300.6	386.5	447.0	470.9
72.5°	206.8	259.3	348.4	407.2	429.5
75°	162.3	221.1	308.6	361.1	372.2
77.5°	120.9	182.9	267.2	289.5	281.6
80°	85.9	146.3	208.4	197.2	202.0
82.5°	55.7	111.3	128.8	146.3	151.1
85°	31.8	65.2	79.5	85.9	89.1
87.5°	14.3	23.9	31.8	31.8	30.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)