

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: P310237

Luminaire Tested: **24FCZ2-50-UNV-L82765-RDP-CA125-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: P310237  
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-6500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" 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**

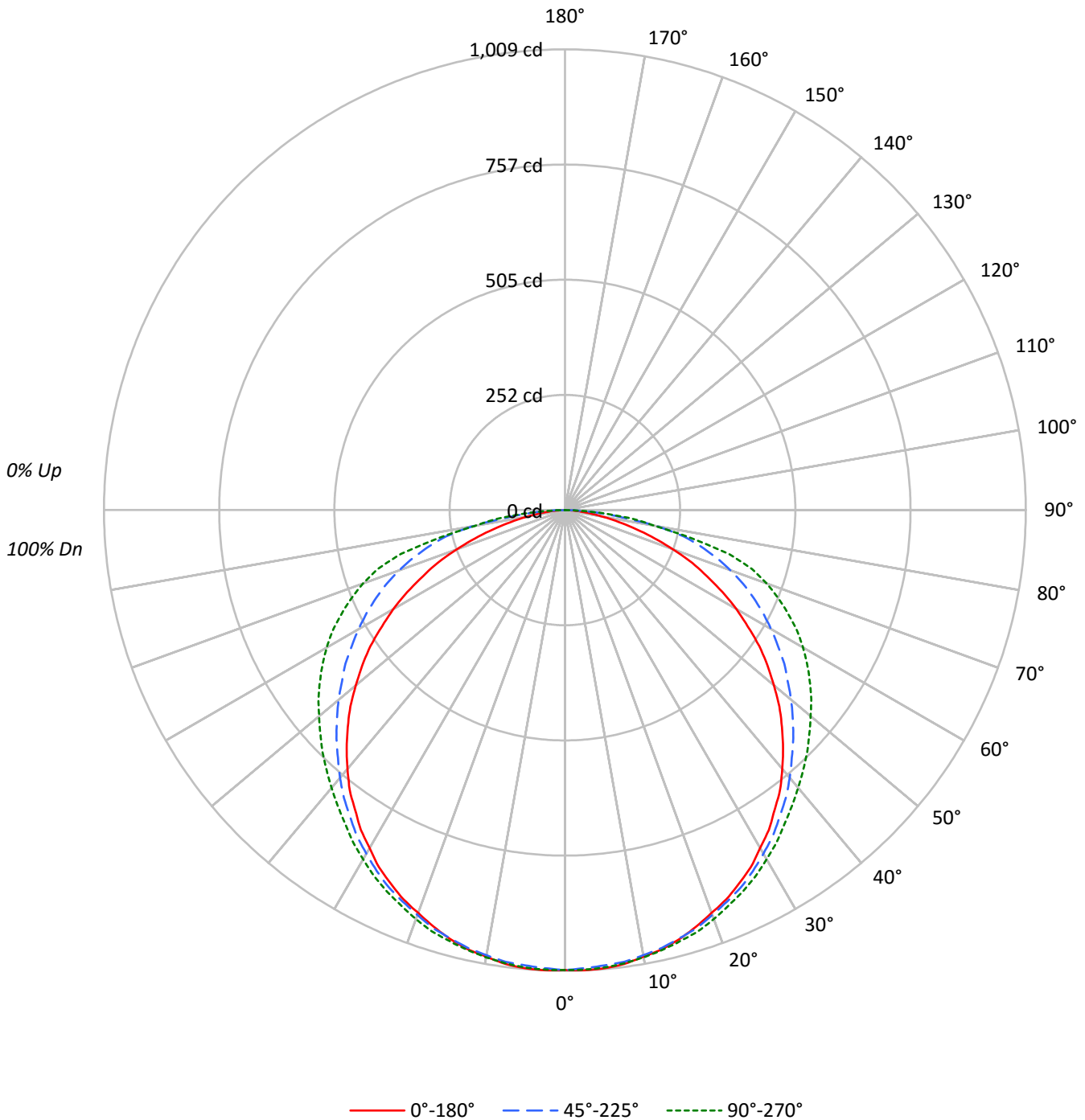
Lumens per Lamp: N/A  
Luminaire Lumens: 3203.0 lumens  
Efficiency: N/A  
Efficacy: 71.8 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 44.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	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°	1355	1355	1355
5°	1360	1352	1358
10°	1357	1352	1359
15°	1354	1352	1361
20°	1344	1351	1365
25°	1340	1354	1368
30°	1328	1350	1372
35°	1315	1347	1378
40°	1300	1345	1395
45°	1279	1345	1427
50°	1250	1353	1470
55°	1219	1375	1536
60°	1167	1402	1620
65°	1093	1452	1720
70°	994	1519	1850
75°	843	1602	1933
80°	665	1612	1564
85°	491	1226	1374



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.5	3.0
10°-20°	275.0	8.6
20°-30°	420.5	13.1
30°-40°	514.1	16.0
40°-50°	547.9	17.1
50°-60°	523.8	16.4
60°-70°	443.8	13.9
70°-80°	298.2	9.3
80°-90°	84.1	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°	791.0	24.7
0°-40°	1305.1	40.7
0°-60°	2376.8	74.2
0°-90°	3203.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3203.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1007	1007	1007	1007	1007	
5°	1007	1006	1001	1006	1006	96
15°	972	972	971	979	977	274
25°	902	906	912	920	922	416
35°	801	807	820	836	839	502
45°	672	683	707	737	750	518
55°	520	539	586	632	655	463
65°	343	378	456	516	540	341
75°	162	221	308	361	372	174
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°	1007.3	1007.3	1007.3	1007.3	1007.3
2.5°	1008.8	1008.8	1004.1	1007.3	1007.3
5°	1007.3	1005.7	1000.9	1005.7	1005.7
7.5°	1002.5	1000.9	997.7	1002.5	1000.9
10°	993.0	993.0	989.8	994.5	994.5
12.5°	985.0	983.4	981.8	988.2	986.6
15°	972.3	972.3	970.7	978.7	977.1
17.5°	956.4	958.0	959.6	965.9	967.5
20°	938.9	942.1	943.7	953.2	953.2
22.5°	923.0	924.6	927.8	937.3	937.3
25°	902.4	905.6	911.9	919.9	921.5
27.5°	881.7	883.3	891.3	902.4	904.0
30°	854.7	859.5	869.0	881.7	883.3
32.5°	830.9	835.7	846.8	859.5	862.7
35°	800.7	807.1	819.8	835.7	838.8
37.5°	773.7	778.5	794.4	811.8	816.6
40°	740.3	749.9	765.8	786.4	794.4
42.5°	707.0	716.5	735.6	762.6	772.1
45°	672.0	683.2	707.0	737.2	749.9
47.5°	637.1	649.8	676.8	711.7	726.0
50°	597.4	613.2	646.6	686.3	702.2
52.5°	559.2	578.3	614.8	659.3	680.0
55°	519.5	538.6	586.2	632.3	654.6
57.5°	475.0	500.4	552.9	605.3	629.1
60°	433.7	457.6	521.1	578.3	602.1
62.5°	389.2	421.0	489.3	549.7	573.5
65°	343.2	378.1	456.0	516.3	540.2
67.5°	301.9	340.0	422.6	483.0	506.8
70°	252.6	300.3	386.1	446.4	470.3
72.5°	206.5	259.0	347.9	406.7	429.0
75°	162.1	220.8	308.2	360.6	371.8
77.5°	120.7	182.7	266.9	289.1	281.2
80°	85.8	146.2	208.1	197.0	201.8
82.5°	55.6	111.2	128.7	146.2	150.9
85°	31.8	65.1	79.4	85.8	89.0
87.5°	14.3	23.8	31.8	31.8	30.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)