

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: P310195

Luminaire Tested: **24FCZ2-50HE-UNV-L82765-RDP-CP125-W2A-U-3500K**

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: P310195  
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: 24FCZ2-50HE-UNV-L82765-RDP-CP125-W2A-U-3500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET  
Light Source: (336) 3500K 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**

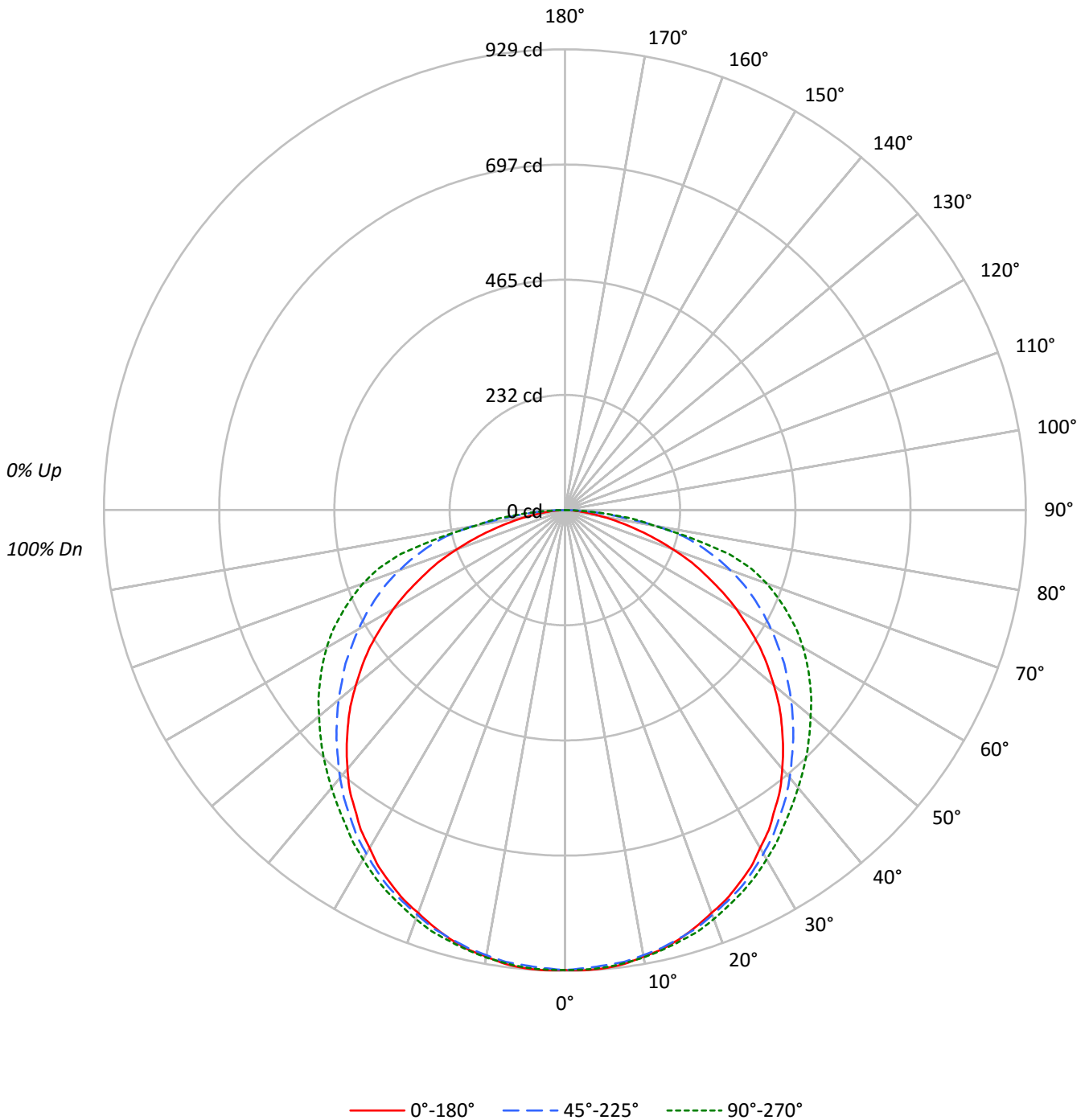
Lumens per Lamp: N/A  
Luminaire Lumens: 2949.0 lumens  
Efficiency: N/A  
Efficacy: 76.4 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 38.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	1248	1248	1248
5°	1253	1245	1251
10°	1249	1245	1251
15°	1247	1245	1253
20°	1238	1244	1257
25°	1233	1246	1260
30°	1223	1243	1264
35°	1211	1240	1269
40°	1197	1238	1285
45°	1177	1239	1314
50°	1151	1246	1353
55°	1122	1266	1414
60°	1075	1291	1492
65°	1006	1337	1583
70°	915	1398	1703
75°	776	1475	1779
80°	612	1485	1440
85°	452	1129	1264



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	88.0	3.0
10°-20°	253.2	8.6
20°-30°	387.2	13.1
30°-40°	473.3	16.0
40°-50°	504.4	17.1
50°-60°	482.3	16.4
60°-70°	408.6	13.9
70°-80°	274.6	9.3
80°-90°	77.5	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°	728.3	24.7
0°-40°	1201.6	40.7
0°-60°	2188.4	74.2
0°-90°	2949.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2949.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	927	927	927	927	927	
5°	927	926	922	926	926	88
15°	895	895	894	901	900	252
25°	831	834	840	847	848	383
35°	737	743	755	769	772	462
45°	619	629	651	679	690	477
55°	478	496	540	582	603	426
65°	316	348	420	475	497	314
75°	149	203	284	332	342	160
85°	29	60	73	79	82	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	927.4	927.4	927.4	927.4	927.4
2.5°	928.8	928.8	924.5	927.4	927.4
5°	927.4	925.9	921.5	925.9	925.9
7.5°	923.0	921.5	918.6	923.0	921.5
10°	914.2	914.2	911.3	915.7	915.7
12.5°	906.9	905.4	904.0	909.8	908.4
15°	895.2	895.2	893.7	901.0	899.6
17.5°	880.6	882.0	883.5	889.3	890.8
20°	864.5	867.4	868.9	877.6	877.6
22.5°	849.9	851.3	854.2	863.0	863.0
25°	830.8	833.8	839.6	846.9	848.4
27.5°	811.8	813.3	820.6	830.8	832.3
30°	787.0	791.3	800.1	811.8	813.3
32.5°	765.0	769.4	779.6	791.3	794.3
35°	737.2	743.1	754.8	769.4	772.3
37.5°	712.4	716.7	731.4	747.5	751.8
40°	681.6	690.4	705.0	724.1	731.4
42.5°	650.9	659.7	677.2	702.1	710.9
45°	618.7	629.0	650.9	678.7	690.4
47.5°	586.6	598.3	623.1	655.3	668.5
50°	550.0	564.6	595.3	631.9	646.5
52.5°	514.9	532.4	566.1	607.0	626.1
55°	478.3	495.9	539.8	582.2	602.6
57.5°	437.4	460.8	509.0	557.3	579.2
60°	399.3	421.3	479.8	532.4	554.4
62.5°	358.4	387.6	450.5	506.1	528.0
65°	316.0	348.1	419.8	475.4	497.3
67.5°	277.9	313.0	389.1	444.7	466.6
70°	232.6	276.5	355.4	411.0	433.0
72.5°	190.2	238.4	320.3	374.5	394.9
75°	149.2	203.3	283.8	332.0	342.3
77.5°	111.2	168.2	245.7	266.2	258.9
80°	79.0	134.6	191.6	181.4	185.8
82.5°	51.2	102.4	118.5	134.6	139.0
85°	29.3	60.0	73.1	79.0	81.9
87.5°	13.2	21.9	29.3	29.3	27.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)