

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: P313615

Luminaire Tested: **24FCZ2-50HE-UNV-L83050-RDP-CA08-W2A-U-3000K**

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: P313615  
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-L83050-RDP-CA08-W2A-U-3000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC SHEET  
Light Source: (336) 3000K 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**

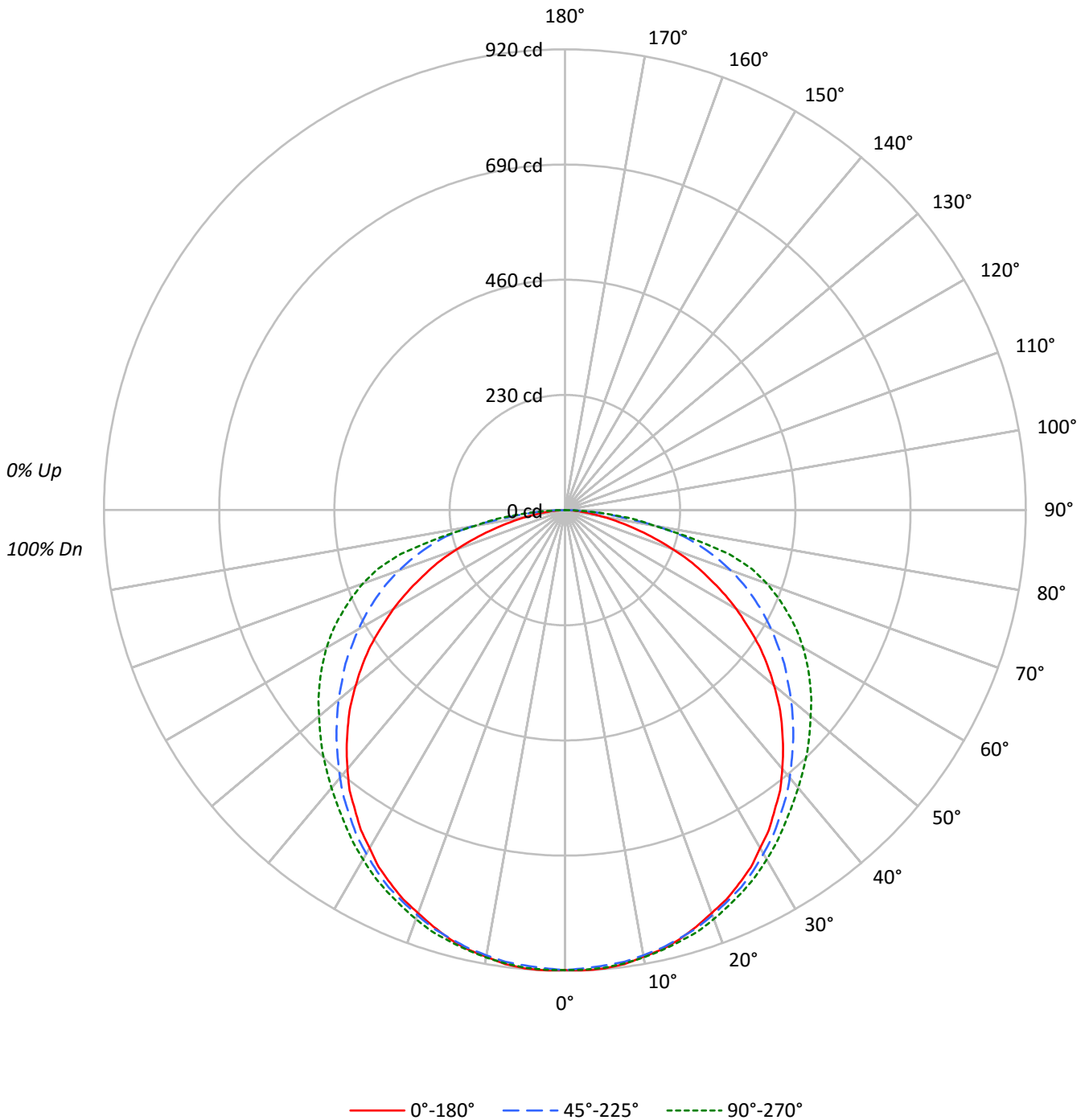
Lumens per Lamp: N/A  
Luminaire Lumens: 2921.0 lumens  
Efficiency: N/A  
Efficacy: 76.3 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 38.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	1236	1236	1236
5°	1241	1233	1239
10°	1237	1233	1239
15°	1235	1233	1241
20°	1226	1232	1245
25°	1222	1235	1247
30°	1211	1231	1252
35°	1199	1228	1257
40°	1186	1227	1272
45°	1166	1227	1301
50°	1140	1234	1340
55°	1111	1254	1400
60°	1064	1279	1478
65°	996	1324	1568
70°	906	1385	1687
75°	768	1461	1762
80°	606	1471	1426
85°	448	1118	1252



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.1	3.0
10°-20°	250.8	8.6
20°-30°	383.5	13.1
30°-40°	468.8	16.0
40°-50°	499.7	17.1
50°-60°	477.7	16.4
60°-70°	404.7	13.9
70°-80°	272.0	9.3
80°-90°	76.7	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°	721.4	24.7
0°-40°	1190.2	40.7
0°-60°	2167.6	74.2
0°-90°	2921.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2921.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	919	919	919	919	919	
5°	919	917	913	917	917	87
15°	887	887	885	892	891	250
25°	823	826	832	839	840	379
35°	730	736	748	762	765	457
45°	613	623	645	672	684	473
55°	474	491	535	577	597	422
65°	313	345	416	471	493	311
75°	148	201	281	329	339	158
85°	29	59	72	78	81	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	918.6	918.6	918.6	918.6	918.6
2.5°	920.0	920.0	915.7	918.6	918.6
5°	918.6	917.1	912.8	917.1	917.1
7.5°	914.2	912.8	909.9	914.2	912.8
10°	905.5	905.5	902.6	907.0	907.0
12.5°	898.3	896.8	895.4	901.2	899.7
15°	886.7	886.7	885.2	892.5	891.0
17.5°	872.2	873.7	875.1	880.9	882.3
20°	856.3	859.2	860.6	869.3	869.3
22.5°	841.8	843.2	846.1	854.8	854.8
25°	822.9	825.8	831.6	838.9	840.3
27.5°	804.1	805.6	812.8	822.9	824.4
30°	779.5	783.8	792.5	804.1	805.6
32.5°	757.7	762.1	772.2	783.8	786.7
35°	730.2	736.0	747.6	762.1	765.0
37.5°	705.6	709.9	724.4	740.4	744.7
40°	675.2	683.9	698.3	717.2	724.4
42.5°	644.7	653.4	670.8	695.4	704.1
45°	612.9	623.0	644.7	672.3	683.9
47.5°	581.0	592.6	617.2	649.1	662.1
50°	544.8	559.3	589.7	625.9	640.4
52.5°	510.0	527.4	560.7	601.3	620.1
55°	473.8	491.2	534.6	576.6	596.9
57.5°	433.2	456.4	504.2	552.0	573.7
60°	395.5	417.3	475.2	527.4	549.1
62.5°	355.0	383.9	446.2	501.3	523.0
65°	313.0	344.8	415.8	470.9	492.6
67.5°	275.3	310.1	385.4	440.5	462.2
70°	230.4	273.8	352.1	407.1	428.9
72.5°	188.4	236.2	317.3	370.9	391.2
75°	147.8	201.4	281.1	328.9	339.0
77.5°	110.1	166.6	243.4	263.7	256.4
80°	78.2	133.3	189.8	179.7	184.0
82.5°	50.7	101.4	117.4	133.3	137.6
85°	29.0	59.4	72.4	78.2	81.1
87.5°	13.0	21.7	29.0	29.0	27.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)