

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: P313661

Luminaire Tested: **24FCZ2-50-UNV-L83050-RDP-CP250-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: P313661  
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-L83050-RDP-CP250-W2A-U-3500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" POLYCARB SHEET  
Light Source: (168) 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: 2855.0 lumens  
Efficiency: N/A  
Efficacy: 66.9 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

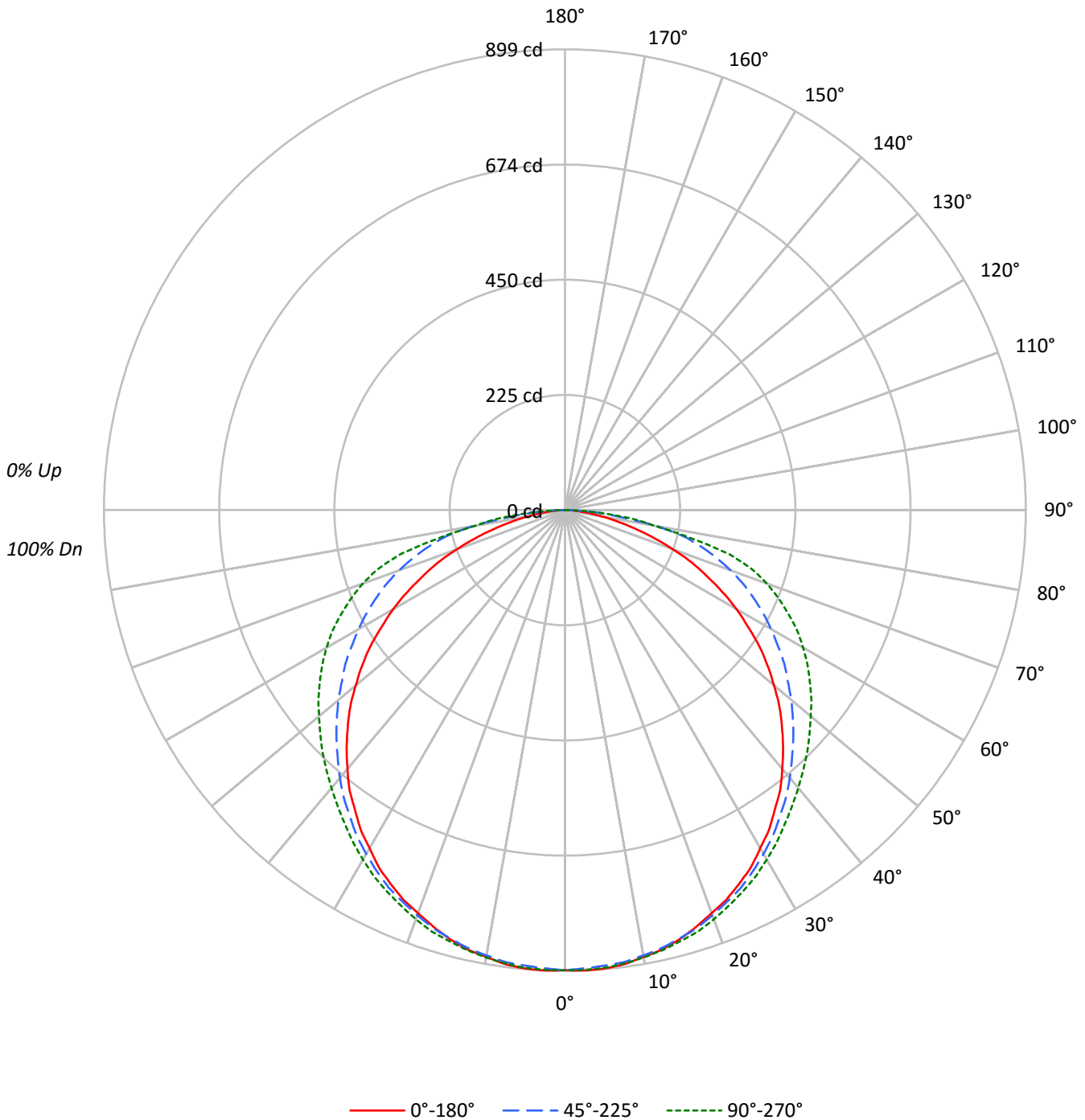
Input Watts (W): 42.7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	1208	1208	1208
5°	1213	1205	1211
10°	1209	1205	1211
15°	1207	1205	1213
20°	1198	1204	1217
25°	1194	1207	1219
30°	1184	1203	1223
35°	1172	1200	1228
40°	1159	1199	1244
45°	1140	1199	1272
50°	1115	1207	1310
55°	1086	1226	1369
60°	1040	1250	1444
65°	974	1294	1533
70°	886	1354	1649
75°	751	1428	1723
80°	593	1437	1393
85°	437	1093	1224



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.2	3.0
10°-20°	245.1	8.6
20°-30°	374.8	13.1
30°-40°	458.2	16.0
40°-50°	488.4	17.1
50°-60°	466.9	16.4
60°-70°	395.6	13.9
70°-80°	265.8	9.3
80°-90°	75.0	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°	705.1	24.7
0°-40°	1163.3	40.7
0°-60°	2118.6	74.2
0°-90°	2855.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2855.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	898	898	898	898	898	
5°	898	896	892	896	896	85
15°	867	867	865	872	871	244
25°	804	807	813	820	821	371
35°	714	719	731	745	748	447
45°	599	609	630	657	668	462
55°	463	480	522	564	583	412
65°	306	337	406	460	482	304
75°	144	197	275	322	331	155
85°	28	58	71	76	79	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	897.8	897.8	897.8	897.8	897.8
2.5°	899.2	899.2	895.0	897.8	897.8
5°	897.8	896.4	892.2	896.4	896.4
7.5°	893.6	892.2	889.3	893.6	892.2
10°	885.1	885.1	882.2	886.5	886.5
12.5°	878.0	876.6	875.2	880.8	879.4
15°	866.7	866.7	865.2	872.3	870.9
17.5°	852.5	853.9	855.3	861.0	862.4
20°	836.9	839.8	841.2	849.7	849.7
22.5°	822.8	824.2	827.0	835.5	835.5
25°	804.4	807.2	812.8	819.9	821.3
27.5°	785.9	787.4	794.4	804.4	805.8
30°	761.9	766.1	774.6	785.9	787.4
32.5°	740.6	744.9	754.8	766.1	768.9
35°	713.7	719.4	730.7	744.9	747.7
37.5°	689.6	693.9	708.1	723.6	727.9
40°	659.9	668.4	682.6	701.0	708.1
42.5°	630.2	638.7	655.7	679.7	688.2
45°	599.0	608.9	630.2	657.1	668.4
47.5°	567.9	579.2	603.3	634.4	647.2
50°	532.5	546.6	576.4	611.8	625.9
52.5°	498.5	515.5	548.0	587.7	606.1
55°	463.1	480.1	522.5	563.6	583.4
57.5°	423.4	446.1	492.8	539.5	560.8
60°	386.6	407.8	464.5	515.5	536.7
62.5°	346.9	375.3	436.2	490.0	511.2
65°	305.9	337.0	406.4	460.2	481.5
67.5°	269.1	303.0	376.7	430.5	451.7
70°	225.2	267.6	344.1	397.9	419.2
72.5°	184.1	230.8	310.1	362.5	382.4
75°	144.4	196.8	274.7	321.5	331.4
77.5°	107.6	162.9	237.9	257.7	250.7
80°	76.5	130.3	185.5	175.6	179.8
82.5°	49.6	99.1	114.7	130.3	134.5
85°	28.3	58.1	70.8	76.5	79.3
87.5°	12.7	21.2	28.3	28.3	26.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)