

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: P309904

Luminaire Tested: **24FCZ2-30-UNV-L82765-RDP-CP250-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: P309904  
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: 24FCZ2-30-UNV-L82765-RDP-CP250-W2A-U-6500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" POLYCARB 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**

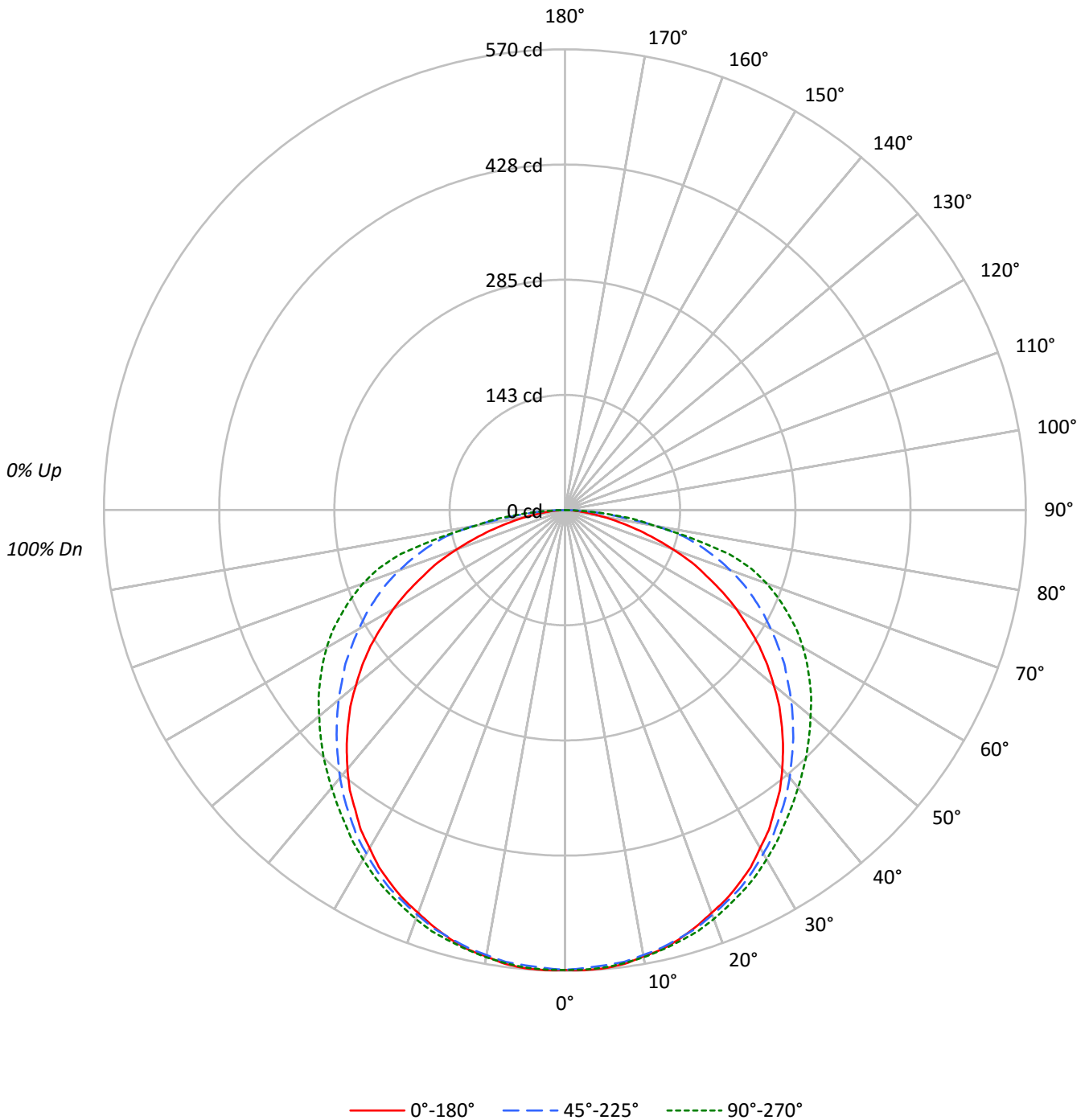
Lumens per Lamp: N/A  
Luminaire Lumens: 1809.0 lumens  
Efficiency: N/A  
Efficacy: 74.1 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 24.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	765	765	765
5°	768	764	767
10°	766	764	767
15°	765	764	769
20°	759	763	771
25°	757	765	773
30°	750	763	775
35°	743	760	778
40°	734	760	788
45°	722	760	806
50°	706	764	830
55°	688	777	867
60°	659	792	915
65°	617	820	971
70°	561	858	1045
75°	476	905	1092
80°	376	910	883
85°	276	693	775



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	54.0	3.0
10°-20°	155.3	8.6
20°-30°	237.5	13.1
30°-40°	290.3	16.0
40°-50°	309.4	17.1
50°-60°	295.9	16.4
60°-70°	250.6	13.9
70°-80°	168.4	9.3
80°-90°	47.5	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°	446.8	24.7
0°-40°	737.1	40.7
0°-60°	1342.4	74.2
0°-90°	1809.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1809.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	569	569	569	569	569	
5°	569	568	565	568	568	54
15°	549	549	548	553	552	155
25°	510	512	515	520	520	235
35°	452	456	463	472	474	283
45°	380	386	399	416	424	293
55°	293	304	331	357	370	261
65°	194	214	258	292	305	192
75°	92	125	174	204	210	98
85°	18	37	45	48	50	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	568.9	568.9	568.9	568.9	568.9
2.5°	569.8	569.8	567.1	568.9	568.9
5°	568.9	568.0	565.3	568.0	568.0
7.5°	566.2	565.3	563.5	566.2	565.3
10°	560.8	560.8	559.0	561.7	561.7
12.5°	556.3	555.4	554.5	558.1	557.2
15°	549.1	549.1	548.2	552.7	551.8
17.5°	540.2	541.1	542.0	545.5	546.4
20°	530.3	532.1	533.0	538.4	538.4
22.5°	521.3	522.2	524.0	529.4	529.4
25°	509.7	511.5	515.0	519.5	520.4
27.5°	498.0	498.9	503.4	509.7	510.6
30°	482.7	485.4	490.8	498.0	498.9
32.5°	469.3	472.0	478.3	485.4	487.2
35°	452.2	455.8	463.0	472.0	473.8
37.5°	437.0	439.7	448.6	458.5	461.2
40°	418.1	423.5	432.5	444.2	448.6
42.5°	399.3	404.7	415.4	430.7	436.1
45°	379.6	385.8	399.3	416.3	423.5
47.5°	359.8	367.0	382.2	402.0	410.1
50°	337.4	346.4	365.2	387.6	396.6
52.5°	315.8	326.6	347.2	372.4	384.0
55°	293.4	304.2	331.1	357.1	369.7
57.5°	268.3	282.6	312.3	341.9	355.3
60°	245.0	258.4	294.3	326.6	340.1
62.5°	219.8	237.8	276.4	310.5	323.9
65°	193.8	213.6	257.5	291.6	305.1
67.5°	170.5	192.0	238.7	272.8	286.2
70°	142.7	169.6	218.0	252.1	265.6
72.5°	116.6	146.3	196.5	229.7	242.3
75°	91.5	124.7	174.1	203.7	210.0
77.5°	68.2	103.2	150.7	163.3	158.8
80°	48.5	82.6	117.5	111.3	114.0
82.5°	31.4	62.8	72.7	82.6	85.2
85°	17.9	36.8	44.9	48.5	50.2
87.5°	8.1	13.5	17.9	17.9	17.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)