

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: P309902

Luminaire Tested: **24FCZ2-30-UNV-L82765-RDP-CP250-W2A-U-5500K**

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: P309902
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-5500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" POLYCARB SHEET
Light Source: (168) 5500K 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: 1800.0 lumens
Efficiency: N/A
Efficacy: 74.7 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

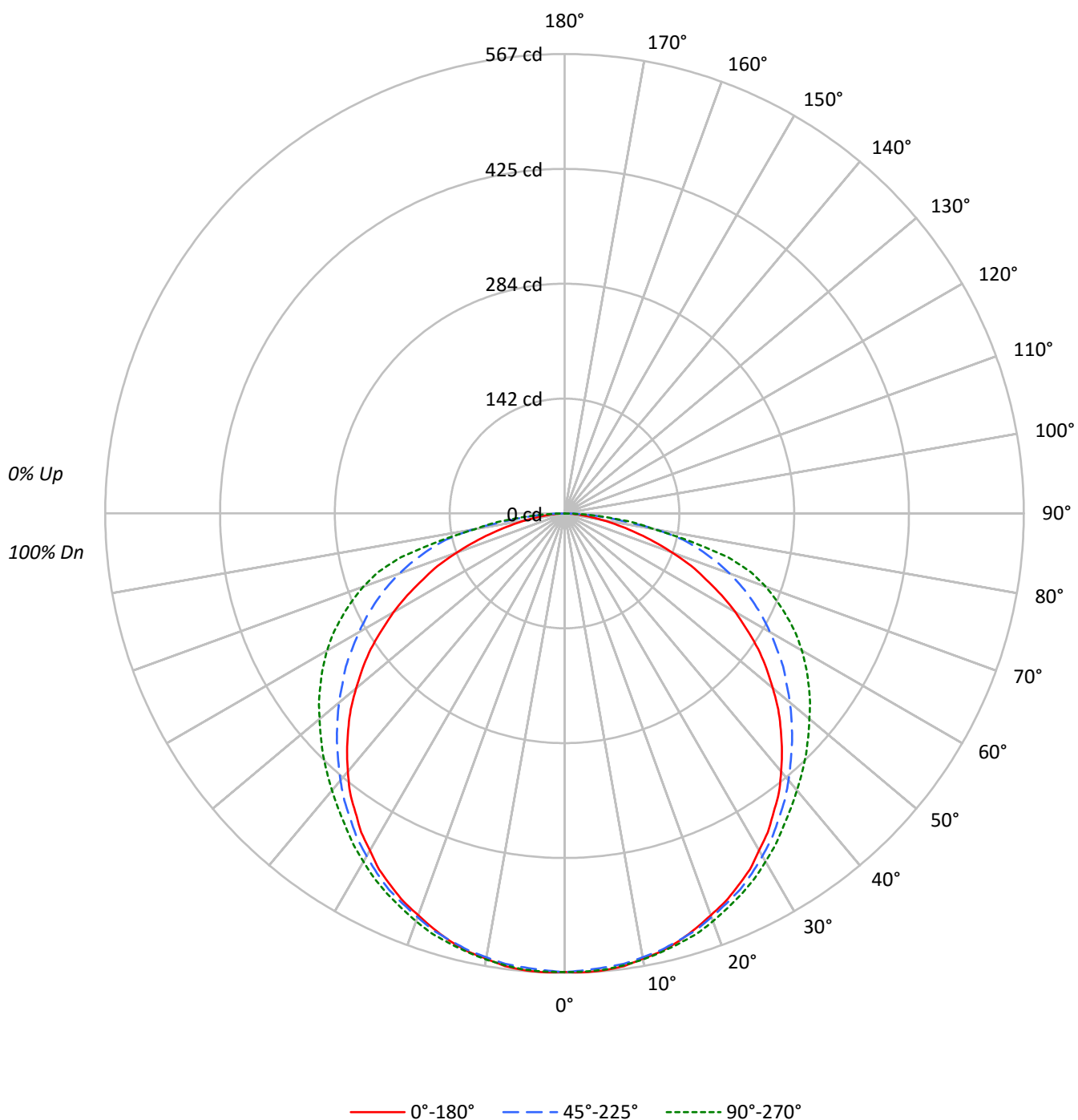
Input Watts (W): 24.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	108	103	98	94	105	100	96	92	96	93	89		92	89	87		82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		67
3	88	77	68	62	86	76	67	61	72	66	60		70	64	59		56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		27
9	55	41	33	27	53	40	32	27	39	32	27		38	31	26		24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	762	762	762
5°	764	760	763
10°	762	760	764
15°	761	760	765
20°	756	759	767
25°	753	761	769
30°	746	759	771
35°	739	757	774
40°	731	756	784
45°	719	756	802
50°	703	761	826
55°	685	773	863
60°	656	788	911
65°	614	816	967
70°	559	854	1040
75°	474	900	1086
80°	373	907	879
85°	276	689	772



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.7	3.0
10°-20°	154.5	8.6
20°-30°	236.3	13.1
30°-40°	288.9	16.0
40°-50°	307.9	17.1
50°-60°	294.4	16.4
60°-70°	249.4	13.9
70°-80°	167.6	9.3
80°-90°	47.3	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°	444.5	24.7
0°-40°	733.4	40.7
0°-60°	1335.7	74.2
0°-90°	1800.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1800.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	566	566	566	566	566	
5°	566	565	562	565	565	54
15°	546	546	546	550	549	154
25°	507	509	512	517	518	234
35°	450	454	461	470	471	282
45°	378	384	397	414	421	291
55°	292	303	330	355	368	260
65°	193	212	256	290	304	191
75°	91	124	173	203	209	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°	566.0	566.0	566.0	566.0	566.0
2.5°	566.9	566.9	564.3	566.0	566.0
5°	566.0	565.2	562.5	565.2	565.2
7.5°	563.4	562.5	560.7	563.4	562.5
10°	558.0	558.0	556.2	558.9	558.9
12.5°	553.5	552.7	551.8	555.3	554.4
15°	546.4	546.4	545.5	550.0	549.1
17.5°	537.5	538.4	539.3	542.8	543.7
20°	527.7	529.4	530.3	535.7	535.7
22.5°	518.7	519.6	521.4	526.8	526.8
25°	507.1	508.9	512.5	516.9	517.8
27.5°	495.5	496.4	500.9	507.1	508.0
30°	480.3	483.0	488.4	495.5	496.4
32.5°	466.9	469.6	475.9	483.0	484.8
35°	450.0	453.6	460.7	469.6	471.4
37.5°	434.8	437.5	446.4	456.2	458.9
40°	416.1	421.4	430.3	441.9	446.4
42.5°	397.3	402.7	413.4	428.6	433.9
45°	377.7	383.9	397.3	414.3	421.4
47.5°	358.0	365.2	380.3	400.0	408.0
50°	335.7	344.6	363.4	385.7	394.6
52.5°	314.3	325.0	345.5	370.5	382.1
55°	292.0	302.7	329.5	355.3	367.8
57.5°	267.0	281.2	310.7	340.2	353.6
60°	243.7	257.1	292.8	325.0	338.4
62.5°	218.7	236.6	275.0	308.9	322.3
65°	192.8	212.5	256.2	290.2	303.6
67.5°	169.6	191.1	237.5	271.4	284.8
70°	142.0	168.7	217.0	250.9	264.3
72.5°	116.1	145.5	195.5	228.6	241.1
75°	91.1	124.1	173.2	202.7	208.9
77.5°	67.9	102.7	150.0	162.5	158.0
80°	48.2	82.1	117.0	110.7	113.4
82.5°	31.2	62.5	72.3	82.1	84.8
85°	17.9	36.6	44.6	48.2	50.0
87.5°	8.0	13.4	17.9	17.9	17.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)