

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: P309994

Luminaire Tested: **24FCZ2-35-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: P309994
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: 24FCZ2-35-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: 2122.0 lumens
Efficiency: N/A
Efficacy: 72.7 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

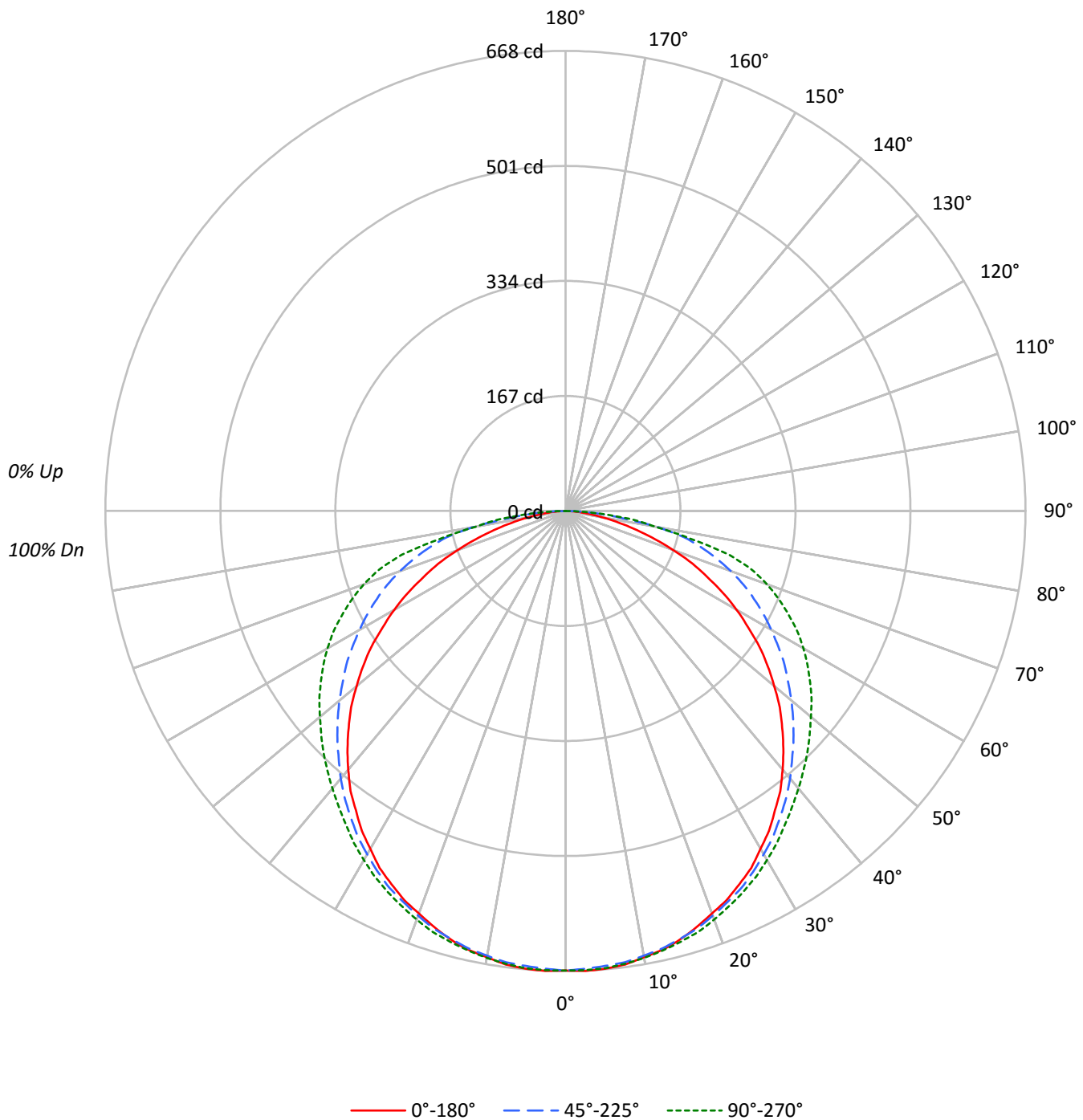
Input Watts (W): 29.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	898	898	898
5°	901	896	900
10°	899	896	900
15°	897	896	902
20°	891	895	904
25°	887	897	906
30°	880	894	909
35°	871	892	913
40°	862	891	924
45°	847	891	945
50°	828	897	974
55°	807	911	1017
60°	773	929	1073
65°	724	962	1139
70°	659	1006	1226
75°	558	1062	1280
80°	440	1068	1036
85°	326	812	909



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.3	3.0
10°-20°	182.2	8.6
20°-30°	278.6	13.1
30°-40°	340.6	16.0
40°-50°	363.0	17.1
50°-60°	347.0	16.4
60°-70°	294.0	13.9
70°-80°	197.6	9.3
80°-90°	55.7	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°	524.1	24.7
0°-40°	864.6	40.7
0°-60°	1574.7	74.2
0°-90°	2122.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2122.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	667	667	667	667	667	
5°	667	666	663	666	666	63
15°	644	644	643	648	647	182
25°	598	600	604	609	610	276
35°	530	535	543	554	556	332
45°	445	453	468	488	497	343
55°	344	357	388	419	434	307
65°	227	250	302	342	358	226
75°	107	146	204	239	246	115
85°	21	43	53	57	59	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	667.3	667.3	667.3	667.3	667.3
2.5°	668.4	668.4	665.2	667.3	667.3
5°	667.3	666.3	663.1	666.3	666.3
7.5°	664.2	663.1	661.0	664.2	663.1
10°	657.8	657.8	655.7	658.9	658.9
12.5°	652.6	651.5	650.5	654.7	653.6
15°	644.2	644.2	643.1	648.4	647.3
17.5°	633.6	634.7	635.7	639.9	641.0
20°	622.0	624.2	625.2	631.5	631.5
22.5°	611.5	612.6	614.7	621.0	621.0
25°	597.8	599.9	604.2	609.4	610.5
27.5°	584.2	585.2	590.5	597.8	598.9
30°	566.3	569.4	575.7	584.2	585.2
32.5°	550.5	553.6	561.0	569.4	571.5
35°	530.5	534.7	543.1	553.6	555.7
37.5°	512.6	515.7	526.3	537.8	541.0
40°	490.5	496.8	507.3	521.0	526.3
42.5°	468.4	474.7	487.3	505.2	511.5
45°	445.2	452.6	468.4	488.4	496.8
47.5°	422.1	430.5	448.4	471.5	481.0
50°	395.8	406.3	428.4	454.7	465.2
52.5°	370.5	383.1	407.3	436.8	450.5
55°	344.2	356.8	388.4	418.9	433.6
57.5°	314.7	331.5	366.3	401.0	416.8
60°	287.3	303.1	345.2	383.1	398.9
62.5°	257.9	278.9	324.2	364.2	380.0
65°	227.3	250.5	302.1	342.1	357.9
67.5°	200.0	225.2	280.0	320.0	335.8
70°	167.4	198.9	255.8	295.8	311.6
72.5°	136.8	171.6	230.5	269.4	284.2
75°	107.4	146.3	204.2	238.9	246.3
77.5°	80.0	121.0	176.8	191.6	186.3
80°	56.8	96.8	137.9	130.5	133.7
82.5°	36.8	73.7	85.3	96.8	100.0
85°	21.1	43.2	52.6	56.8	58.9
87.5°	9.5	15.8	21.1	21.1	20.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)