

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: P313500

Luminaire Tested: **24FCZ2-35-UNV-L83050-RDP-CP125-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: P313500  
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-L83050-RDP-CP125-W2A-U-3000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET  
Light Source: (168) 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: 2019.0 lumens  
Efficiency: N/A  
Efficacy: 72.4 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

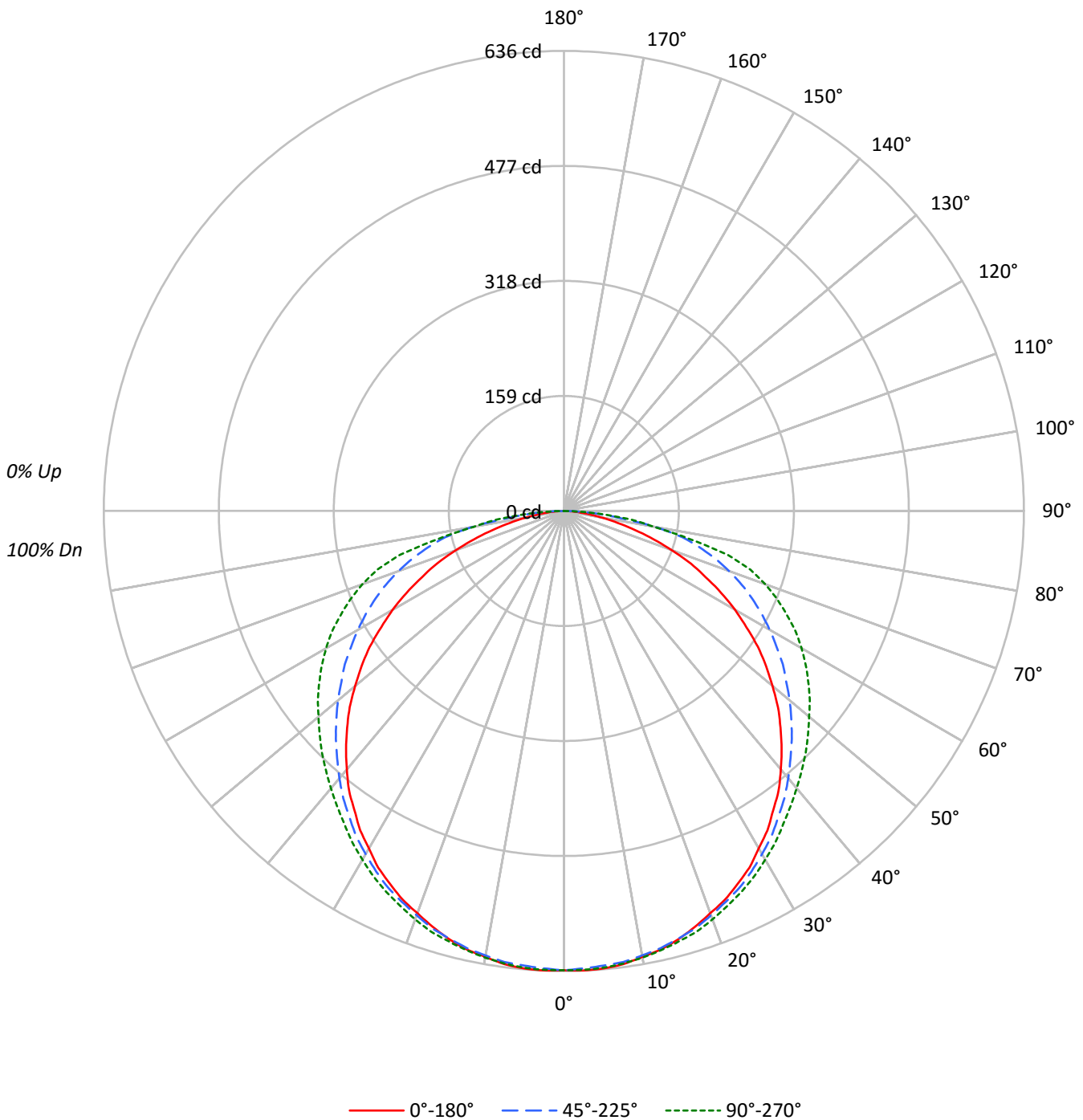
Input Watts (W): 27.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P313500

CATALOG NUMBER: 24FCZ2-35-UNV-L83050-RDP-CP125-W2A-U-3000K

### Luminous Intensity Polar Plot





TEST NUMBER: P313500

CATALOG NUMBER: 24FCZ2-35-UNV-L83050-RDP-CP125-W2A-U-3000K

**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°	854	854	854
5°	858	852	856
10°	855	852	856
15°	854	852	858
20°	848	852	860
25°	844	853	862
30°	837	851	865
35°	829	849	869
40°	820	848	879
45°	806	848	899
50°	788	853	926
55°	768	867	968
60°	736	884	1021
65°	689	915	1084
70°	626	958	1166
75°	531	1010	1218
80°	419	1017	986
85°	309	773	866



TEST NUMBER: P313500

CATALOG NUMBER: 24FCZ2-35-UNV-L83050-RDP-CP125-W2A-U-3000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.2	3.0
10°-20°	173.3	8.6
20°-30°	265.1	13.1
30°-40°	324.0	16.0
40°-50°	345.4	17.1
50°-60°	330.2	16.4
60°-70°	279.7	13.9
70°-80°	188.0	9.3
80°-90°	53.0	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°	498.6	24.7
0°-40°	822.7	40.7
0°-60°	1498.2	74.2
0°-90°	2019.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2019.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	635	635	635	635	635	
5°	635	634	631	634	634	60
15°	613	613	612	617	616	173
25°	569	571	575	580	581	262
35°	505	509	517	527	529	316
45°	424	431	446	465	473	327
55°	328	340	370	399	413	292
65°	216	238	287	326	340	215
75°	102	139	194	227	234	109
85°	20	41	50	54	56	25
90°	0	0	0	0	0	



TEST NUMBER: P313500

CATALOG NUMBER: 24FCZ2-35-UNV-L83050-RDP-CP125-W2A-U-3000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	634.9	634.9	634.9	634.9	634.9
2.5°	635.9	635.9	632.9	634.9	634.9
5°	634.9	633.9	630.9	633.9	633.9
7.5°	631.9	630.9	628.9	631.9	630.9
10°	625.9	625.9	623.9	626.9	626.9
12.5°	620.9	619.9	618.9	622.9	621.9
15°	612.9	612.9	611.9	616.9	615.9
17.5°	602.9	603.9	604.9	608.9	609.9
20°	591.9	593.9	594.9	600.9	600.9
22.5°	581.8	582.8	584.8	590.9	590.9
25°	568.8	570.8	574.8	579.8	580.8
27.5°	555.8	556.8	561.8	568.8	569.8
30°	538.8	541.8	547.8	555.8	556.8
32.5°	523.8	526.8	533.8	541.8	543.8
35°	504.7	508.7	516.7	526.8	528.8
37.5°	487.7	490.7	500.7	511.7	514.7
40°	466.7	472.7	482.7	495.7	500.7
42.5°	445.6	451.7	463.7	480.7	486.7
45°	423.6	430.6	445.6	464.7	472.7
47.5°	401.6	409.6	426.6	448.6	457.7
50°	376.5	386.6	407.6	432.6	442.6
52.5°	352.5	364.5	387.6	415.6	428.6
55°	327.5	339.5	369.5	398.6	412.6
57.5°	299.4	315.5	348.5	381.6	396.6
60°	273.4	288.4	328.5	364.5	379.5
62.5°	245.4	265.4	308.4	346.5	361.5
65°	216.3	238.3	287.4	325.5	340.5
67.5°	190.3	214.3	266.4	304.4	319.5
70°	159.2	189.3	243.4	281.4	296.4
72.5°	130.2	163.2	219.3	256.4	270.4
75°	102.1	139.2	194.3	227.3	234.3
77.5°	76.1	115.2	168.2	182.3	177.3
80°	54.1	92.1	131.2	124.2	127.2
82.5°	35.1	70.1	81.1	92.1	95.1
85°	20.0	41.1	50.1	54.1	56.1
87.5°	9.0	15.0	20.0	20.0	19.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)