

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: P313476

Luminaire Tested: **24FCZ2-35HE-UNV-L83050-RDP-CP125-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: P313476  
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: 24FCZ2-35HE-UNV-L83050-RDP-CP125-W2A-U-3500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET  
Light Source: (336) 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: 2114.0 lumens  
Efficiency: N/A  
Efficacy: 81.3 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

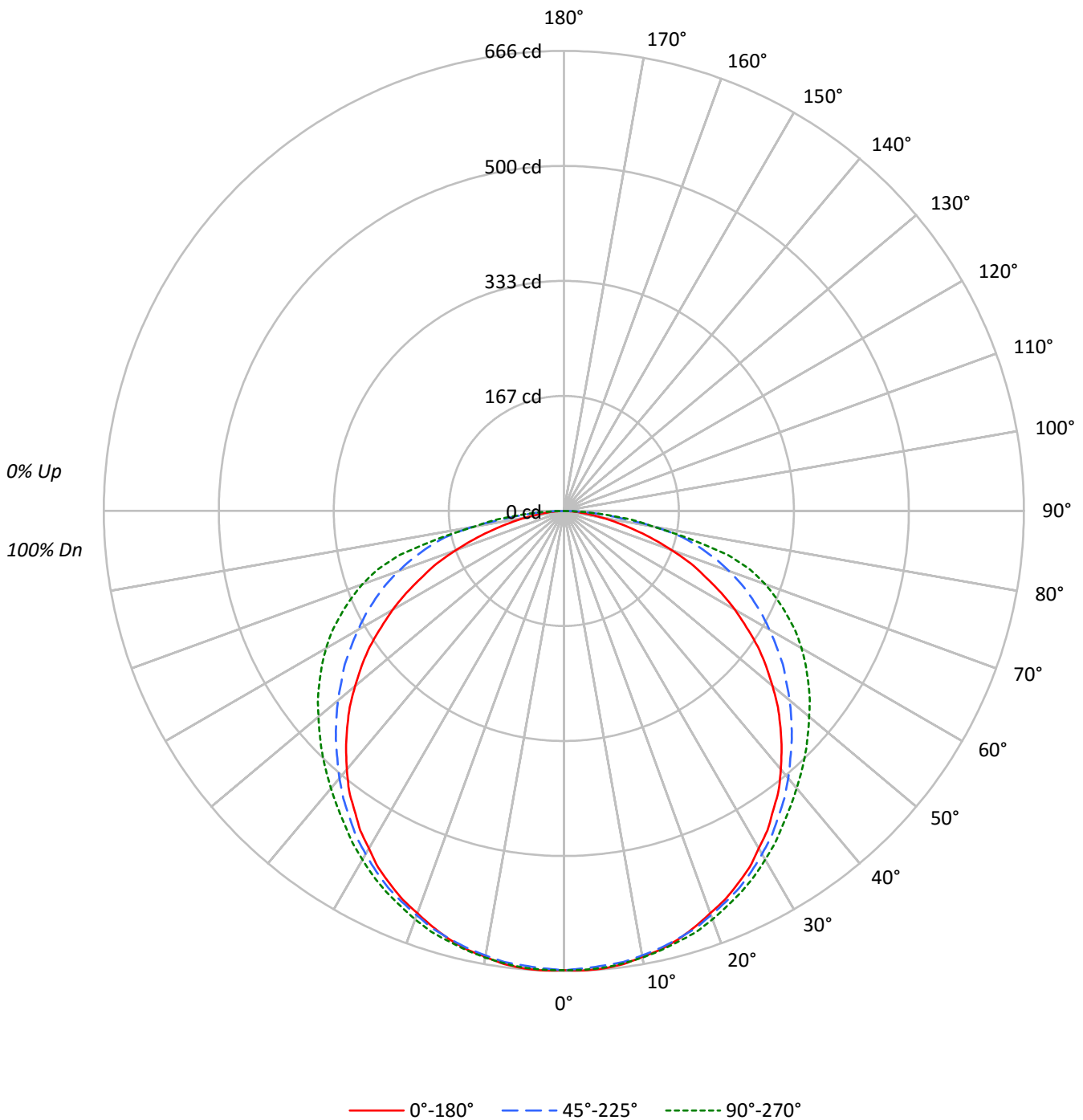
Input Watts (W): 26  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	894	894	894
5°	898	892	896
10°	895	893	897
15°	894	892	898
20°	887	892	901
25°	884	894	903
30°	876	891	906
35°	868	889	909
40°	858	888	921
45°	844	888	942
50°	825	893	970
55°	804	908	1013
60°	770	925	1069
65°	721	958	1135
70°	656	1002	1221
75°	556	1057	1276
80°	439	1065	1032
85°	324	809	906



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.1	3.0
10°-20°	181.5	8.6
20°-30°	277.5	13.1
30°-40°	339.3	16.0
40°-50°	361.6	17.1
50°-60°	345.8	16.4
60°-70°	292.9	13.9
70°-80°	196.8	9.3
80°-90°	55.5	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°	522.1	24.7
0°-40°	861.4	40.7
0°-60°	1568.7	74.2
0°-90°	2114.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2114.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	665	665	665	665	665	
5°	665	664	661	664	664	63
15°	642	642	641	646	645	181
25°	596	598	602	607	608	275
35°	528	533	541	552	554	331
45°	444	451	467	486	495	342
55°	343	356	387	417	432	305
65°	226	250	301	341	356	225
75°	107	146	203	238	245	115
85°	21	43	52	57	59	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	664.8	664.8	664.8	664.8	664.8
2.5°	665.8	665.8	662.7	664.8	664.8
5°	664.8	663.7	660.6	663.7	663.7
7.5°	661.6	660.6	658.5	661.6	660.6
10°	655.4	655.4	653.3	656.4	656.4
12.5°	650.1	649.1	648.0	652.2	651.2
15°	641.7	641.7	640.7	645.9	644.9
17.5°	631.2	632.3	633.3	637.5	638.6
20°	619.7	621.8	622.8	629.1	629.1
22.5°	609.2	610.3	612.4	618.7	618.7
25°	595.6	597.7	601.9	607.1	608.2
27.5°	582.0	583.0	588.2	595.6	596.6
30°	564.1	567.3	573.6	582.0	583.0
32.5°	548.4	551.5	558.9	567.3	569.4
35°	528.5	532.7	541.1	551.5	553.6
37.5°	510.7	513.8	524.3	535.8	539.0
40°	488.6	494.9	505.4	519.0	524.3
42.5°	466.6	472.9	485.5	503.3	509.6
45°	443.5	450.9	466.6	486.5	494.9
47.5°	420.5	428.9	446.7	469.8	479.2
50°	394.3	404.7	426.8	453.0	463.5
52.5°	369.1	381.7	405.8	435.2	448.8
55°	342.9	355.5	386.9	417.3	432.0
57.5°	313.5	330.3	364.9	399.5	415.2
60°	286.3	302.0	343.9	381.7	397.4
62.5°	256.9	277.9	323.0	362.8	378.5
65°	226.5	249.6	300.9	340.8	356.5
67.5°	199.2	224.4	278.9	318.8	334.5
70°	166.7	198.2	254.8	294.6	310.4
72.5°	136.3	170.9	229.6	268.4	283.1
75°	107.0	145.8	203.4	238.0	245.4
77.5°	79.7	120.6	176.2	190.8	185.6
80°	56.6	96.5	137.4	130.0	133.2
82.5°	36.7	73.4	84.9	96.5	99.6
85°	21.0	43.0	52.4	56.6	58.7
87.5°	9.4	15.7	21.0	21.0	19.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)