

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: P313076

Luminaire Tested: **24FCZ2-30-UNV-L83050-HRP-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: P313076
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
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-L83050-HRP-CP125-W2A-U-3500K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB SHEET
Light Source: (168) 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: 2105.0 lumens
Efficiency: N/A
Efficacy: 90.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

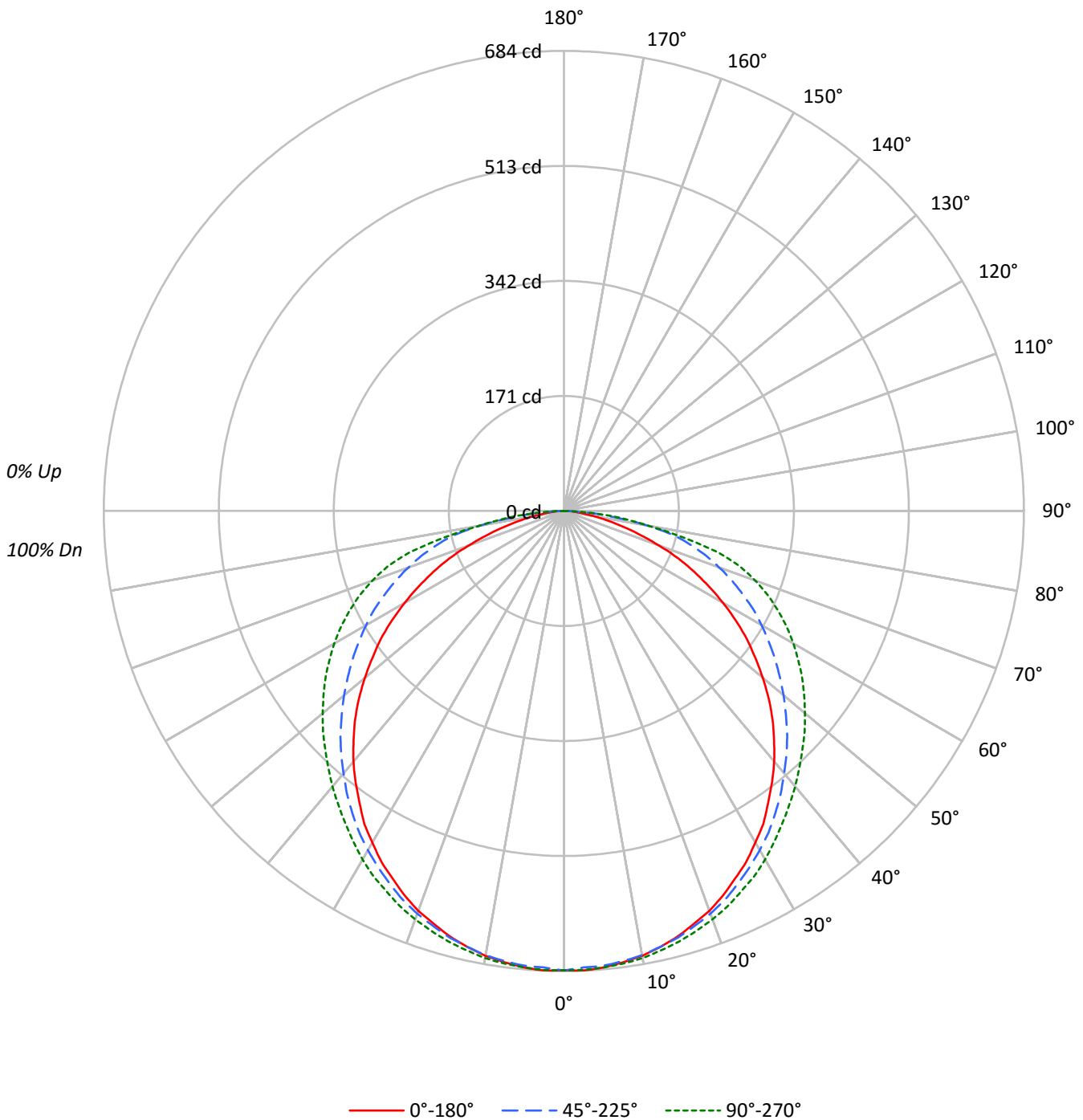
Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	919	919	919
5°	920	917	920
10°	917	916	922
15°	912	914	923
20°	906	912	925
25°	895	908	926
30°	884	905	930
35°	870	900	931
40°	854	895	940
45°	835	894	954
50°	808	893	979
55°	779	899	1015
60°	735	913	1060
65°	679	934	1119
70°	593	967	1193
75°	481	1017	1233
80°	355	997	997
85°	272	735	831



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.7	3.1
10°-20°	185.8	8.8
20°-30°	282.8	13.4
30°-40°	343.4	16.3
40°-50°	362.8	17.2
50°-60°	342.4	16.3
60°-70°	284.7	13.5
70°-80°	187.3	8.9
80°-90°	51.1	2.4
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°	533.3	25.3
0°-40°	876.8	41.7
0°-60°	1582.0	75.2
0°-90°	2105.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2105.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	683	683	683	683	683	
5°	681	681	679	681	681	65
15°	655	656	656	663	663	185
25°	603	606	612	622	624	278
35°	530	536	548	562	567	332
45°	439	448	470	493	501	338
55°	332	346	383	420	433	296
65°	213	238	294	337	352	211
75°	92	135	196	232	237	100
85°	18	39	48	53	54	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	683.0	683.0	683.0	683.0	683.0
2.5°	683.9	683.0	679.4	683.0	683.0
5°	681.2	681.2	678.6	681.2	681.2
7.5°	676.8	676.8	675.0	678.6	678.6
10°	671.5	671.5	670.6	675.0	675.0
12.5°	663.6	664.5	663.6	668.9	668.9
15°	654.8	655.7	656.5	662.7	662.7
17.5°	643.3	645.1	646.8	653.9	654.8
20°	632.7	633.6	637.1	645.1	646.0
22.5°	618.6	621.3	625.7	633.6	636.3
25°	602.8	606.3	611.6	622.2	623.9
27.5°	587.8	590.4	597.5	608.9	612.5
30°	569.3	573.7	582.5	594.0	598.4
32.5°	551.7	556.1	566.6	579.0	582.5
35°	529.6	535.8	548.1	562.2	566.6
37.5°	508.5	514.7	529.6	545.5	550.8
40°	486.5	493.5	509.4	527.9	534.9
42.5°	462.7	472.4	490.0	510.2	518.2
45°	438.9	447.7	469.7	492.6	501.4
47.5°	413.3	423.9	447.7	475.0	485.6
50°	386.0	399.2	426.5	456.5	467.9
52.5°	358.7	373.7	404.5	438.0	450.3
55°	332.2	346.3	383.3	419.5	432.7
57.5°	303.2	320.8	361.3	400.1	413.3
60°	273.2	292.6	339.3	379.8	393.9
62.5°	243.2	265.3	318.1	358.7	373.7
65°	213.3	237.9	293.5	336.6	351.6
67.5°	184.2	211.5	270.5	313.7	328.7
70°	150.7	185.1	245.9	288.2	303.2
72.5°	119.9	159.5	222.1	261.7	275.0
75°	92.5	134.8	195.6	231.8	237.1
77.5°	67.9	110.2	168.3	180.7	181.5
80°	45.8	88.1	128.7	126.9	128.7
82.5°	30.0	66.1	81.1	90.8	91.7
85°	17.6	38.8	47.6	52.9	53.8
87.5°	8.8	13.2	16.7	17.6	19.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)