

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: P313075

Luminaire Tested: **24FCZ2-30-UNV-L83050-HRP-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: P313075
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-3000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 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: 1989.0 lumens
Efficiency: N/A
Efficacy: 85.0 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

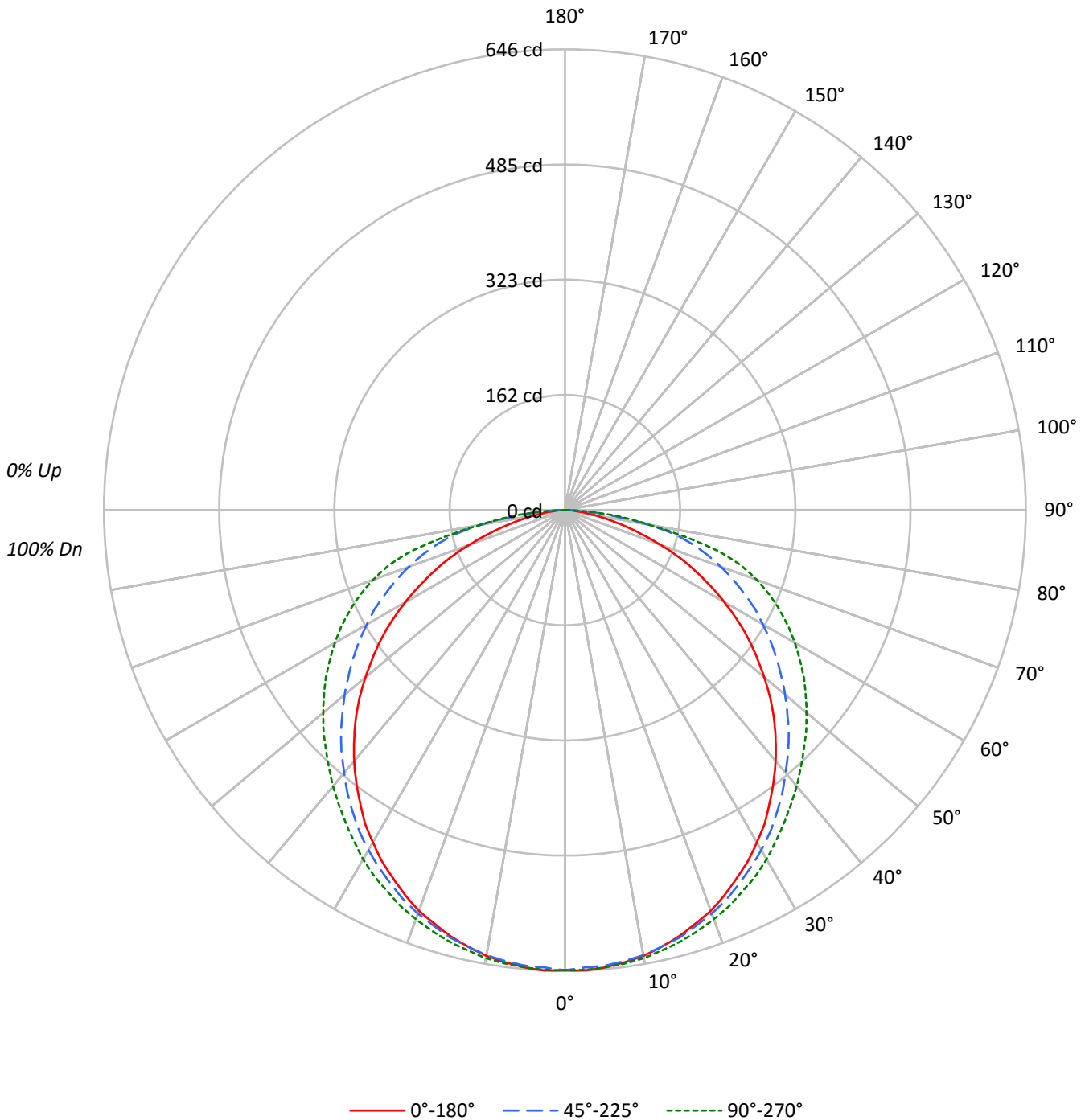
Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	868	868	868
5°	869	866	869
10°	867	866	871
15°	862	864	872
20°	856	862	874
25°	846	858	875
30°	836	855	878
35°	822	851	879
40°	807	845	888
45°	789	844	902
50°	763	844	926
55°	736	850	959
60°	695	863	1002
65°	642	883	1058
70°	560	914	1127
75°	454	961	1164
80°	336	942	942
85°	258	695	784



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.1	3.1
10°-20°	175.6	8.8
20°-30°	267.3	13.4
30°-40°	324.5	16.3
40°-50°	342.8	17.2
50°-60°	323.5	16.3
60°-70°	269.0	13.5
70°-80°	177.0	8.9
80°-90°	48.2	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°	503.9	25.3
0°-40°	828.4	41.7
0°-60°	1494.8	75.2
0°-90°	1989.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1989.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	645	645	645	645	645	
5°	644	644	641	644	644	61
15°	619	620	620	626	626	174
25°	570	573	578	588	590	263
35°	500	506	518	531	535	313
45°	415	423	444	466	474	319
55°	314	327	362	396	409	280
65°	202	225	277	318	332	199
75°	87	127	185	219	224	94
85°	17	37	45	50	51	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	645.3	645.3	645.3	645.3	645.3
2.5°	646.2	645.3	642.0	645.3	645.3
5°	643.7	643.7	641.2	643.7	643.7
7.5°	639.5	639.5	637.8	641.2	641.2
10°	634.5	634.5	633.7	637.8	637.8
12.5°	627.0	627.8	627.0	632.0	632.0
15°	618.7	619.5	620.4	626.2	626.2
17.5°	607.9	609.5	611.2	617.9	618.7
20°	597.9	598.7	602.0	609.5	610.4
22.5°	584.5	587.0	591.2	598.7	601.2
25°	569.6	572.9	577.9	587.9	589.5
27.5°	555.4	557.9	564.6	575.4	578.7
30°	537.9	542.1	550.4	561.2	565.4
32.5°	521.3	525.4	535.4	547.1	550.4
35°	500.4	506.3	517.9	531.3	535.4
37.5°	480.5	486.3	500.4	515.4	520.4
40°	459.6	466.3	481.3	498.8	505.4
42.5°	437.2	446.3	463.0	482.1	489.6
45°	414.7	423.0	443.8	465.5	473.8
47.5°	390.5	400.5	423.0	448.8	458.8
50°	364.7	377.2	403.0	431.3	442.2
52.5°	338.9	353.1	382.2	413.8	425.5
55°	313.9	327.2	362.2	396.4	408.8
57.5°	286.4	303.1	341.4	378.0	390.5
60°	258.1	276.5	320.6	358.9	372.2
62.5°	229.8	250.6	300.6	338.9	353.1
65°	201.5	224.8	277.3	318.1	332.2
67.5°	174.0	199.8	255.6	296.4	310.6
70°	142.4	174.9	232.3	272.3	286.4
72.5°	113.2	150.7	209.8	247.3	259.8
75°	87.4	127.4	184.9	219.0	224.0
77.5°	64.1	104.1	159.0	170.7	171.5
80°	43.3	83.3	121.6	119.9	121.6
82.5°	28.3	62.5	76.6	85.8	86.6
85°	16.7	36.6	45.0	50.0	50.8
87.5°	8.3	12.5	15.8	16.7	18.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)