

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: P310544

Luminaire Tested: **24FCZ2-30-UNV-L82765-CA125-W2A-U-2700K**

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: P310544
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
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-L82765-CA125-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 2700K 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: 2535.0 lumens
Efficiency: N/A
Efficacy: 108.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

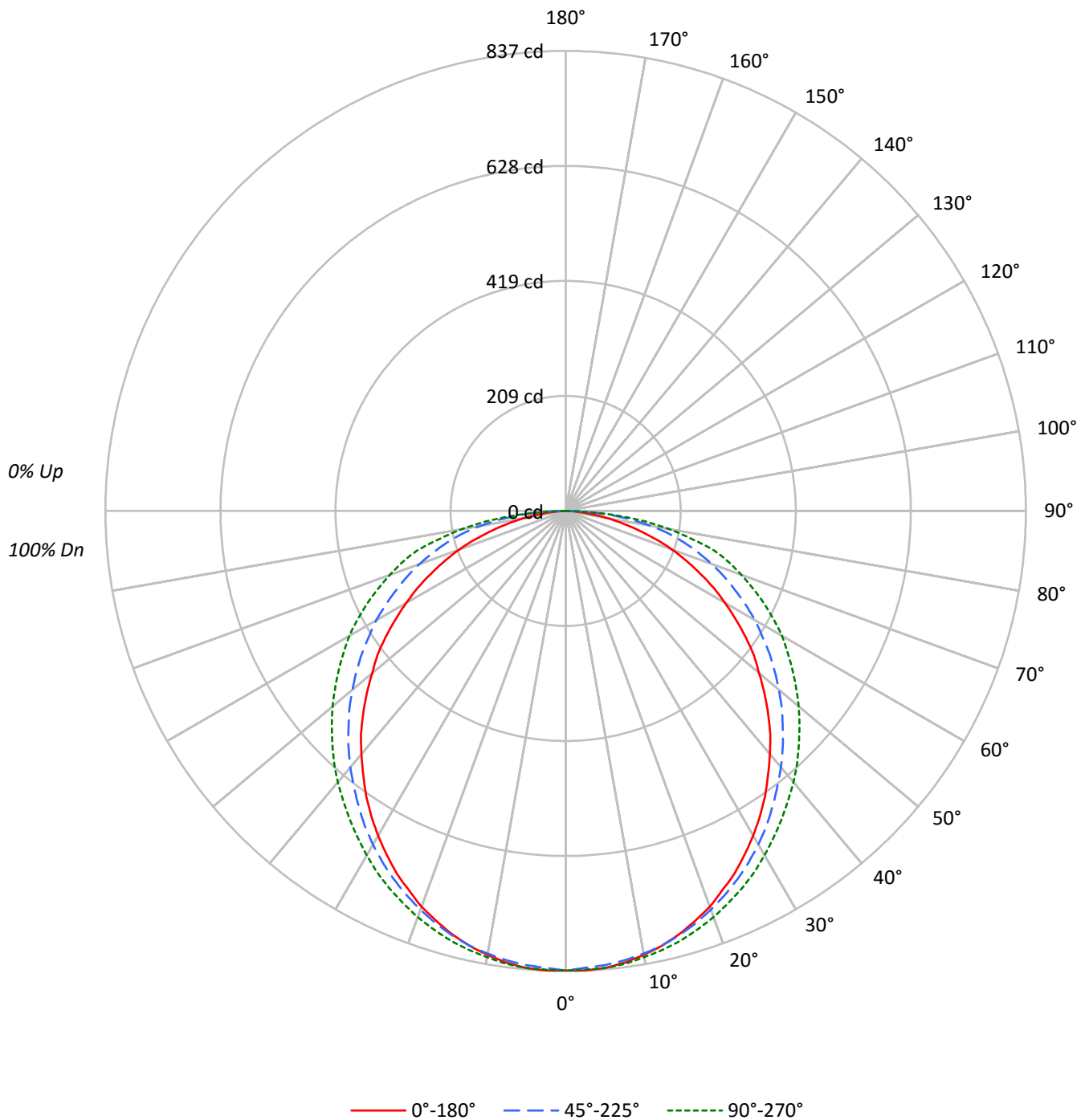
Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1125	1125	1125
5°	1127	1120	1127
10°	1120	1117	1126
15°	1111	1113	1127
20°	1097	1106	1126
25°	1080	1098	1125
30°	1060	1088	1124
35°	1039	1078	1124
40°	1015	1069	1132
45°	991	1063	1141
50°	961	1060	1158
55°	937	1061	1182
60°	901	1070	1222
65°	860	1082	1266
70°	814	1115	1337
75°	726	1163	1460
80°	619	1232	1492
85°	442	1221	1428



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.1	3.1
10°-20°	226.2	8.9
20°-30°	341.7	13.5
30°-40°	411.8	16.2
40°-50°	432.3	17.1
50°-60°	404.5	16.0
60°-70°	334.0	13.2
70°-80°	227.6	9.0
80°-90°	77.6	3.1
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°	647.1	25.5
0°-40°	1058.9	41.8
0°-60°	1895.7	74.8
0°-90°	2535.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2535.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	836	836	836	836	836	
5°	834	834	829	834	834	79
15°	797	798	799	807	809	225
25°	728	731	739	754	758	335
35°	632	639	656	678	685	395
45°	521	532	558	589	600	402
55°	400	416	452	490	504	357
65°	270	293	340	383	398	268
75°	140	172	224	266	281	149
85°	29	56	79	89	92	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	836.0	836.0	836.0	836.0	836.0
2.5°	836.9	836.0	831.8	836.0	835.2
5°	834.3	833.5	829.3	834.3	834.3
7.5°	828.5	828.5	824.2	830.1	831.0
10°	820.0	820.0	817.5	824.2	824.2
12.5°	809.9	809.9	809.9	816.7	817.5
15°	797.3	798.2	799.0	807.4	809.1
17.5°	782.2	783.9	786.4	796.5	798.2
20°	766.2	767.9	772.1	783.9	786.4
22.5°	746.0	750.2	756.1	769.6	772.1
25°	727.5	730.9	739.3	753.6	757.8
27.5°	704.8	709.9	720.8	735.9	741.8
30°	682.1	687.2	700.6	718.3	723.3
32.5°	657.7	665.3	679.6	698.1	704.0
35°	632.5	639.2	656.0	677.9	684.6
37.5°	604.7	614.0	632.5	656.0	664.4
40°	577.8	587.9	608.9	634.2	644.3
42.5°	550.9	561.0	584.5	613.1	623.2
45°	520.6	531.6	558.5	588.7	599.7
47.5°	490.3	503.8	533.2	565.2	577.0
50°	459.2	474.4	506.3	540.0	553.4
52.5°	431.5	445.8	479.4	515.6	528.2
55°	399.5	415.5	452.5	489.5	503.8
57.5°	366.7	384.4	423.9	464.3	478.6
60°	334.7	354.1	397.8	438.2	454.2
62.5°	303.6	323.0	368.4	410.4	426.4
65°	270.0	292.7	339.8	382.7	397.8
67.5°	238.0	262.4	312.0	354.1	369.2
70°	206.9	230.5	283.4	324.7	339.8
72.5°	173.3	200.2	253.2	296.1	312.0
75°	139.6	171.6	223.7	265.8	280.9
77.5°	108.5	141.3	193.4	227.9	235.5
80°	79.9	113.5	159.0	183.4	192.6
82.5°	51.3	84.9	121.1	138.8	146.3
85°	28.6	56.4	79.1	89.2	92.5
87.5°	11.8	24.4	32.0	36.2	36.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)