

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: P311227

Luminaire Tested: **24FCZ2-30-UNV-L82765-S-CA125-W2A-U-6500K**

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: P311227
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
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-S-CA125-W2A-U-6500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 6500K 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: 3034.0 lumens
Efficiency: N/A
Efficacy: 124.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

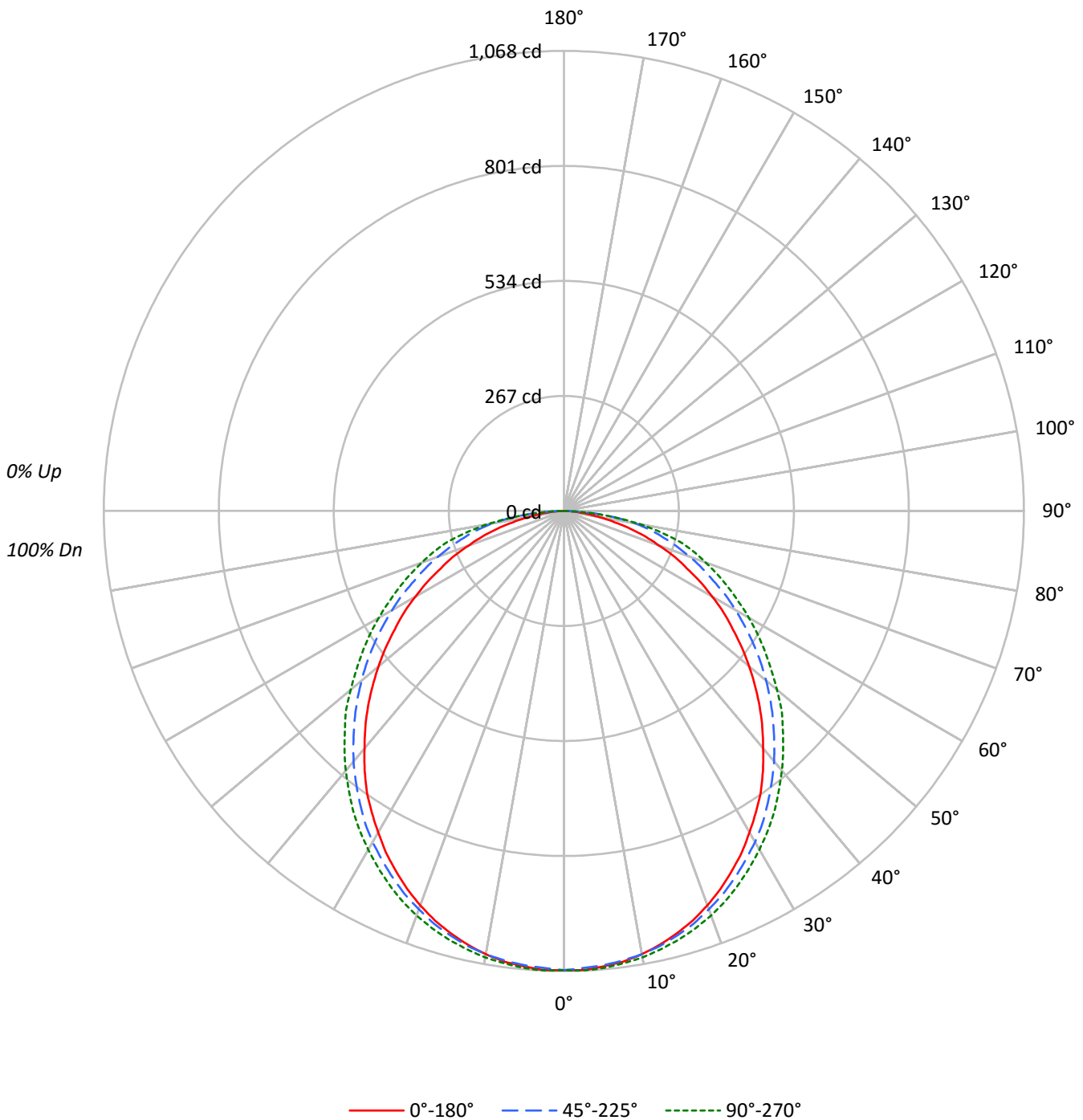
Input Watts (W): 24.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P311227

CATALOG NUMBER: 24FCZ2-30-UNV-L82765-S-CA125-W2A-U-6500K

Luminous Intensity Polar Plot





TEST NUMBER: P311227

CATALOG NUMBER: 24FCZ2-30-UNV-L82765-S-CA125-W2A-U-6500K

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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1434	1434	1434
5°	1433	1429	1438
10°	1427	1427	1438
15°	1414	1420	1435
20°	1395	1409	1431
25°	1369	1395	1422
30°	1339	1379	1410
35°	1309	1357	1399
40°	1264	1334	1383
45°	1223	1307	1368
50°	1176	1283	1352
55°	1124	1259	1338
60°	1071	1240	1336
65°	1003	1218	1344
70°	929	1225	1380
75°	832	1248	1458
80°	672	1322	1426
85°	506	1161	1130



TEST NUMBER: P311227

CATALOG NUMBER: 24FCZ2-30-UNV-L82765-S-CA125-W2A-U-6500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.9	3.3
10°-20°	288.3	9.5
20°-30°	433.4	14.3
30°-40°	516.3	17.0
40°-50°	528.4	17.4
50°-60°	475.7	15.7
60°-70°	373.6	12.3
70°-80°	242.5	8.0
80°-90°	75.0	2.5
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°	822.7	27.1
0°-40°	1338.9	44.1
0°-60°	2343.0	77.2
0°-90°	3034.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3034.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1066	1066	1066	1066	1066	
5°	1061	1063	1058	1064	1065	101
15°	1015	1018	1020	1028	1030	286
25°	922	930	940	955	958	425
35°	797	807	826	846	852	497
45°	643	658	687	713	719	496
55°	479	500	537	565	570	429
65°	315	339	383	414	422	314
75°	160	191	240	273	280	169
85°	33	61	75	73	73	40
90°	0	0	0	0	0	



TEST NUMBER: P311227

CATALOG NUMBER: 24FCZ2-30-UNV-L82765-S-CA125-W2A-U-6500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1065.9	1065.9	1065.9	1065.9	1065.9
2.5°	1066.8	1066.8	1062.0	1066.8	1067.8
5°	1061.0	1063.0	1058.2	1063.9	1064.9
7.5°	1055.3	1055.3	1052.4	1058.2	1059.1
10°	1044.7	1045.6	1044.7	1051.4	1052.4
12.5°	1031.2	1033.1	1034.1	1040.8	1041.8
15°	1014.8	1017.7	1019.6	1028.3	1030.2
17.5°	996.5	999.4	1004.2	1013.8	1015.8
20°	974.3	978.2	983.9	996.5	999.4
22.5°	950.2	954.1	963.7	975.3	980.1
25°	922.3	930.0	939.6	955.0	957.9
27.5°	894.3	901.1	913.6	930.0	933.8
30°	861.6	872.2	887.6	904.0	907.8
32.5°	829.8	840.4	858.7	876.0	880.8
35°	797.0	806.6	825.9	846.1	851.9
37.5°	759.4	771.9	793.1	813.4	819.2
40°	719.9	735.3	759.4	780.6	787.4
42.5°	682.3	698.7	722.8	745.9	753.6
45°	642.8	658.2	687.1	713.1	718.9
47.5°	602.3	619.7	650.5	676.5	686.2
50°	561.8	580.2	612.9	639.9	645.7
52.5°	521.4	540.6	575.3	604.2	607.1
55°	479.0	500.2	536.8	564.7	570.5
57.5°	440.4	458.7	498.2	527.1	533.9
60°	398.0	418.3	460.7	487.6	496.3
62.5°	357.5	378.7	423.1	450.1	457.8
65°	315.1	339.2	382.6	414.4	422.1
67.5°	278.5	301.6	347.9	378.7	386.4
70°	236.1	262.1	311.3	343.1	350.8
72.5°	199.5	226.5	275.6	306.5	318.0
75°	160.0	190.8	240.0	272.7	280.4
77.5°	121.4	157.1	207.2	232.3	232.3
80°	86.7	124.3	170.6	182.1	184.1
82.5°	56.9	93.5	126.2	125.3	125.3
85°	32.8	60.7	75.2	73.2	73.2
87.5°	12.5	25.1	27.0	27.0	26.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)