

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: P310501

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-CA125-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: P310501
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: 24FCZ2-30HE-UNV-L82765-CA125-W2A-U-3500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC 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: 2731.0 lumens
Efficiency: N/A
Efficacy: 128.8 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

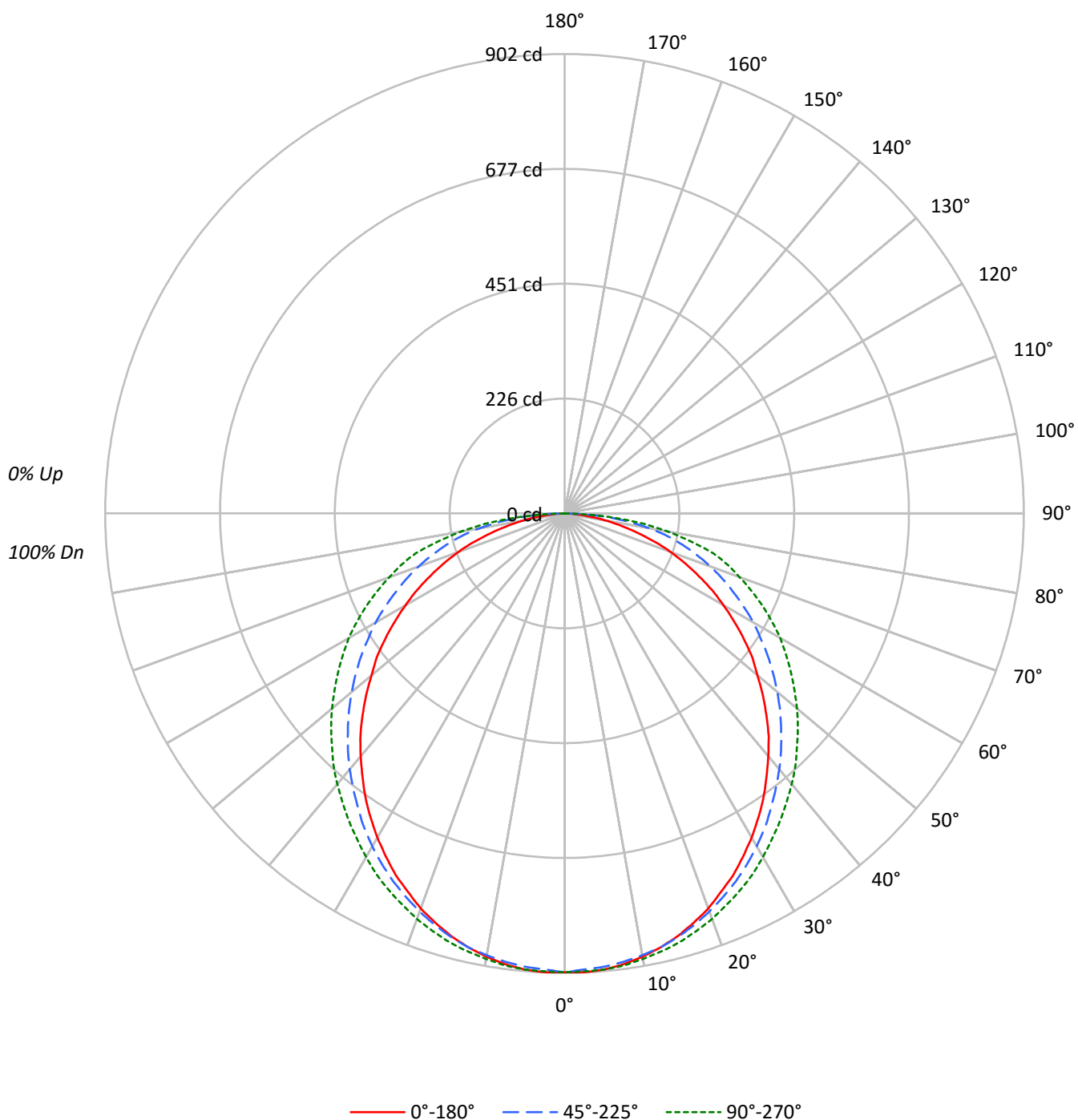
Input Watts (W): 21.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P310501

CATALOG NUMBER: 24FCZ2-30HE-UNV-L82765-CA125-W2A-U-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P310501

CATALOG NUMBER: 24FCZ2-30HE-UNV-L82765-CA125-W2A-U-3500K

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°	1212	1212	1212
5°	1214	1207	1214
10°	1207	1203	1213
15°	1197	1199	1214
20°	1182	1191	1213
25°	1164	1182	1212
30°	1142	1173	1211
35°	1119	1161	1212
40°	1093	1152	1219
45°	1067	1145	1229
50°	1036	1142	1248
55°	1010	1144	1273
60°	970	1153	1317
65°	926	1166	1365
70°	877	1201	1440
75°	782	1253	1573
80°	667	1327	1608
85°	475	1315	1539



TEST NUMBER: P310501

CATALOG NUMBER: 24FCZ2-30HE-UNV-L82765-CA125-W2A-U-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.2	3.1
10°-20°	243.7	8.9
20°-30°	368.1	13.5
30°-40°	443.7	16.2
40°-50°	465.8	17.1
50°-60°	435.8	16.0
60°-70°	359.9	13.2
70°-80°	245.2	9.0
80°-90°	83.6	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°	697.1	25.5
0°-40°	1140.8	41.8
0°-60°	2042.3	74.8
0°-90°	2731.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2731.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	901	901	901	901	901	
5°	899	898	893	899	899	85
15°	859	860	861	870	872	242
25°	784	787	796	812	816	361
35°	681	689	707	730	738	426
45°	561	573	602	634	646	433
55°	430	448	488	527	543	384
65°	291	315	366	412	429	289
75°	150	185	241	286	303	160
85°	31	61	85	96	100	39
90°	0	0	0	0	0	



TEST NUMBER: P310501

CATALOG NUMBER: 24FCZ2-30HE-UNV-L82765-CA125-W2A-U-3500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	900.7	900.7	900.7	900.7	900.7
2.5°	901.6	900.7	896.1	900.7	899.8
5°	898.8	897.9	893.4	898.8	898.8
7.5°	892.5	892.5	888.0	894.3	895.2
10°	883.4	883.4	880.7	888.0	888.0
12.5°	872.6	872.6	872.6	879.8	880.7
15°	859.0	859.9	860.8	869.9	871.7
17.5°	842.7	844.5	847.2	858.1	859.9
20°	825.5	827.3	831.8	844.5	847.2
22.5°	803.7	808.2	814.6	829.1	831.8
25°	783.8	787.4	796.5	811.9	816.4
27.5°	759.3	764.7	776.5	792.8	799.2
30°	734.8	740.3	754.8	773.8	779.2
32.5°	708.6	716.7	732.1	752.1	758.4
35°	681.4	688.6	706.8	730.3	737.6
37.5°	651.5	661.5	681.4	706.8	715.8
40°	622.5	633.4	656.0	683.2	694.1
42.5°	593.5	604.4	629.7	660.5	671.4
45°	560.9	572.7	601.6	634.3	646.0
47.5°	528.3	542.8	574.5	608.9	621.6
50°	494.7	511.0	545.5	581.7	596.2
52.5°	464.8	480.2	516.5	555.4	569.0
55°	430.4	447.6	487.5	527.3	542.8
57.5°	395.1	414.1	456.7	500.2	515.6
60°	360.6	381.5	428.6	472.1	489.3
62.5°	327.1	347.9	396.9	442.2	459.4
65°	290.9	315.3	366.1	412.3	428.6
67.5°	256.4	282.7	336.2	381.5	397.8
70°	222.9	248.3	305.4	349.8	366.1
72.5°	186.7	215.7	272.7	318.9	336.2
75°	150.4	184.8	241.0	286.3	302.6
77.5°	116.9	152.2	208.4	245.6	253.7
80°	86.1	122.3	171.3	197.5	207.5
82.5°	55.3	91.5	130.5	149.5	157.7
85°	30.8	60.7	85.2	96.0	99.7
87.5°	12.7	26.3	34.4	39.0	39.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)