

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: P310500

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-CA125-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: P310500
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-3000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 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: 2640.0 lumens
Efficiency: N/A
Efficacy: 125.7 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

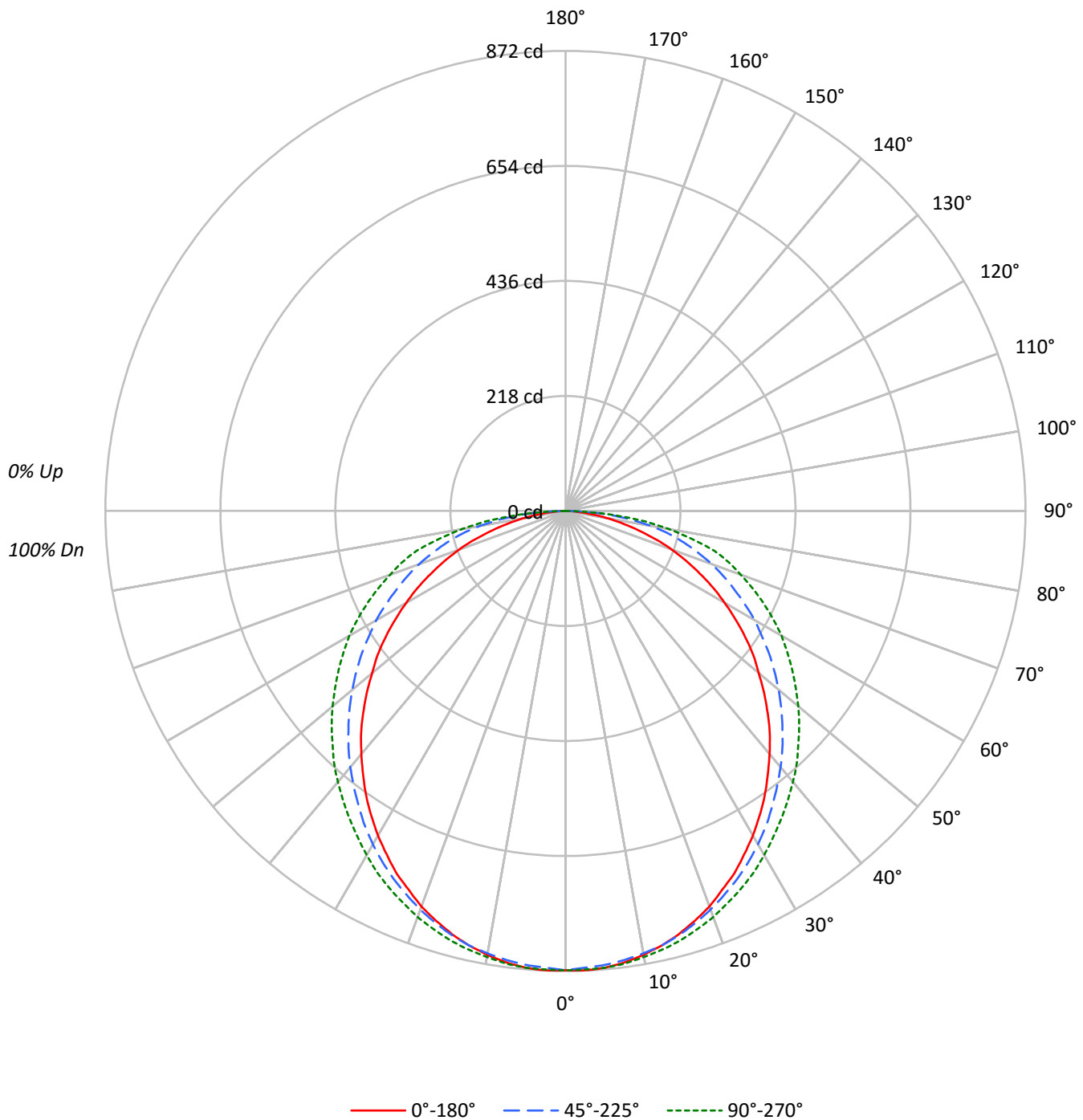
Input Watts (W): 21
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P310500

CATALOG NUMBER: 24FCZ2-30HE-UNV-L82765-CA125-W2A-U-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P310500

CATALOG NUMBER: 24FCZ2-30HE-UNV-L82765-CA125-W2A-U-3000K

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°	1171	1171	1171
5°	1174	1166	1174
10°	1167	1163	1173
15°	1157	1159	1174
20°	1142	1151	1173
25°	1125	1143	1172
30°	1104	1134	1170
35°	1082	1122	1171
40°	1057	1114	1178
45°	1032	1107	1188
50°	1001	1104	1206
55°	976	1105	1231
60°	938	1115	1273
65°	895	1127	1319
70°	848	1161	1392
75°	756	1211	1521
80°	645	1282	1554
85°	460	1271	1487



TEST NUMBER: P310500

CATALOG NUMBER: 24FCZ2-30HE-UNV-L82765-CA125-W2A-U-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.4	3.1
10°-20°	235.6	8.9
20°-30°	355.9	13.5
30°-40°	428.9	16.2
40°-50°	450.3	17.1
50°-60°	421.2	16.0
60°-70°	347.9	13.2
70°-80°	237.1	9.0
80°-90°	80.8	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°	673.9	25.5
0°-40°	1102.7	41.8
0°-60°	1974.2	74.8
0°-90°	2640.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2640.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	871	871	871	871	871	
5°	869	868	864	869	869	82
15°	830	831	832	841	843	234
25°	758	761	770	785	789	349
35°	659	666	683	706	713	412
45°	542	554	582	613	624	418
55°	416	433	471	510	525	371
65°	281	305	354	398	414	279
75°	145	179	233	277	293	155
85°	30	59	82	93	96	37
90°	0	0	0	0	0	



TEST NUMBER: P310500

CATALOG NUMBER: 24FCZ2-30HE-UNV-L82765-CA125-W2A-U-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	870.6	870.6	870.6	870.6	870.6
2.5°	871.5	870.6	866.3	870.6	869.8
5°	868.9	868.0	863.6	868.9	868.9
7.5°	862.8	862.8	858.4	864.5	865.4
10°	854.0	854.0	851.4	858.4	858.4
12.5°	843.5	843.5	843.5	850.5	851.4
15°	830.4	831.2	832.1	840.9	842.6
17.5°	814.6	816.3	819.0	829.5	831.2
20°	797.9	799.7	804.1	816.3	819.0
22.5°	776.9	781.3	787.4	801.5	804.1
25°	757.7	761.2	769.9	784.8	789.2
27.5°	734.0	739.3	750.7	766.4	772.5
30°	710.4	715.6	729.6	748.0	753.3
32.5°	685.0	692.8	707.7	727.0	733.1
35°	658.7	665.7	683.2	706.0	713.0
37.5°	629.8	639.4	658.7	683.2	692.0
40°	601.7	612.3	634.2	660.4	670.9
42.5°	573.7	584.2	608.8	638.5	649.0
45°	542.2	553.6	581.6	613.1	624.5
47.5°	510.7	524.7	555.3	588.6	600.9
50°	478.2	494.0	527.3	562.3	576.3
52.5°	449.3	464.2	499.3	536.9	550.1
55°	416.1	432.7	471.2	509.8	524.7
57.5°	381.9	400.3	441.5	483.5	498.4
60°	348.6	368.8	414.3	456.3	473.0
62.5°	316.2	336.3	383.6	427.4	444.1
65°	281.2	304.8	353.9	398.5	414.3
67.5°	247.9	273.3	325.0	368.8	384.5
70°	215.5	240.0	295.2	338.1	353.9
72.5°	180.4	208.5	263.6	308.3	325.0
75°	145.4	178.7	233.0	276.8	292.6
77.5°	113.0	147.2	201.5	237.4	245.3
80°	83.2	118.2	165.5	190.9	200.6
82.5°	53.4	88.5	126.1	144.5	152.4
85°	29.8	58.7	82.3	92.8	96.3
87.5°	12.3	25.4	33.3	37.7	37.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)