

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: P310507

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-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: P310507
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-6500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 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: 2923.0 lumens
Efficiency: N/A
Efficacy: 132.9 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

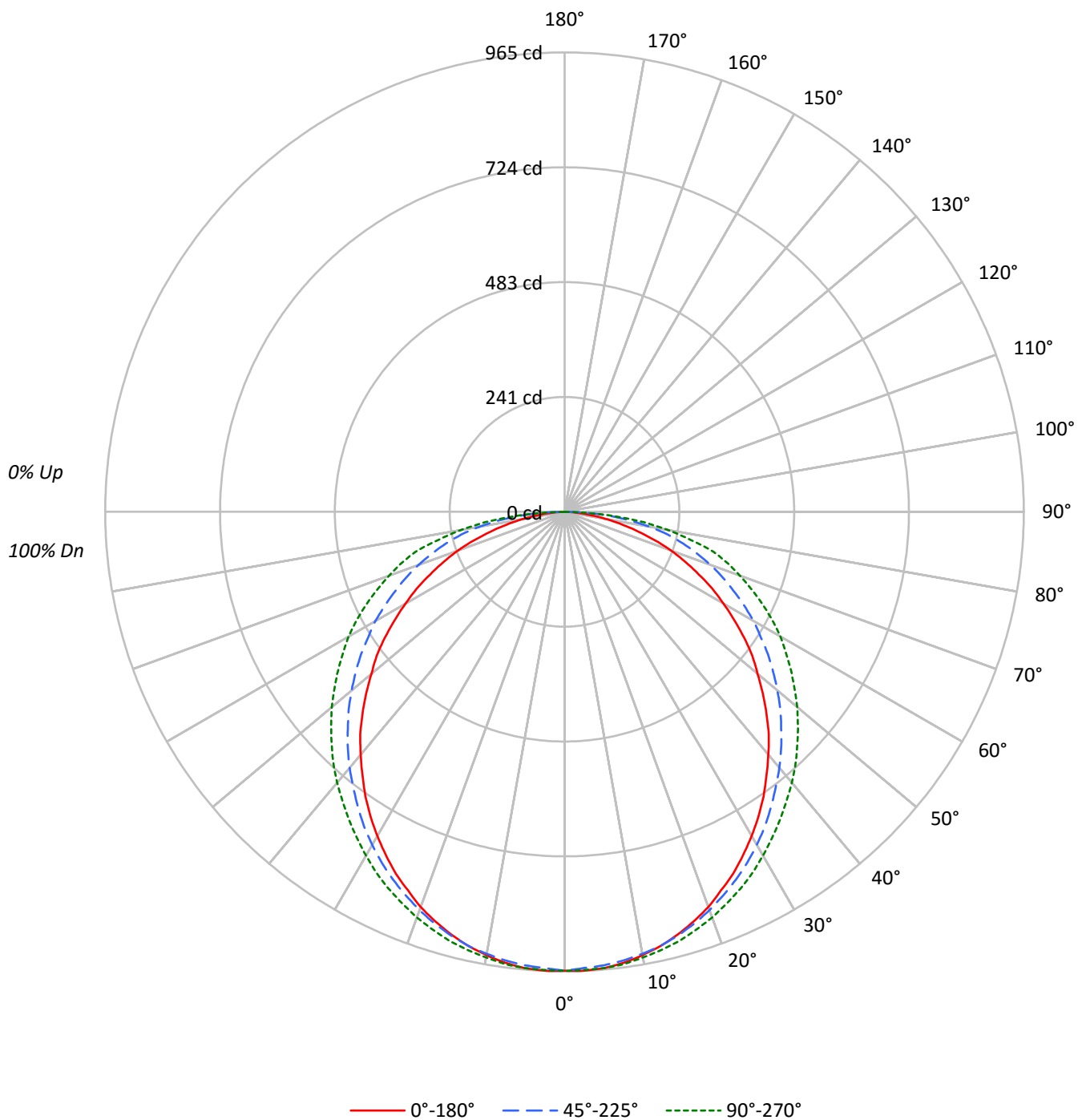
Input Watts (W): 22
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P310507

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

Luminous Intensity Polar Plot





TEST NUMBER: P310507

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

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	50	30	10	50	30	10
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	100	96	92	96	92	89	92	89	87	88	86	84	82		
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67		
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56		
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47		
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41		
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36		
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31		
8	59	45	37	31	57	45	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	25	35	29	24	23		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1297	1297	1297
5°	1299	1291	1299
10°	1292	1288	1298
15°	1281	1283	1299
20°	1265	1275	1298
25°	1245	1266	1297
30°	1222	1255	1296
35°	1198	1242	1297
40°	1170	1233	1305
45°	1142	1225	1316
50°	1108	1222	1336
55°	1081	1224	1363
60°	1039	1234	1409
65°	991	1247	1460
70°	939	1286	1541
75°	837	1341	1684
80°	714	1420	1721
85°	509	1408	1647



TEST NUMBER: P310507

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.2	3.1
10°-20°	260.9	8.9
20°-30°	394.0	13.5
30°-40°	474.9	16.2
40°-50°	498.5	17.1
50°-60°	466.4	16.0
60°-70°	385.2	13.2
70°-80°	262.5	9.0
80°-90°	89.5	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°	746.1	25.5
0°-40°	1221.0	41.8
0°-60°	2185.9	74.8
0°-90°	2923.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2923.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	964	964	964	964	964	
5°	962	961	956	962	962	91
15°	919	920	921	931	933	259
25°	839	843	852	869	874	386
35°	729	737	756	782	789	456
45°	600	613	644	679	692	463
55°	461	479	522	564	581	411
65°	311	338	392	441	459	309
75°	161	198	258	306	324	172
85°	33	65	91	103	107	41
90°	0	0	0	0	0	



TEST NUMBER: P310507

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	964.0	964.0	964.0	964.0	964.0
2.5°	964.9	964.0	959.1	964.0	963.0
5°	962.0	961.1	956.2	962.0	962.0
7.5°	955.3	955.3	950.4	957.2	958.2
10°	945.6	945.6	942.6	950.4	950.4
12.5°	933.9	933.9	933.9	941.7	942.6
15°	919.4	920.3	921.3	931.0	932.9
17.5°	901.9	903.9	906.8	918.4	920.3
20°	883.5	885.4	890.3	903.9	906.8
22.5°	860.2	865.1	871.8	887.4	890.3
25°	838.9	842.8	852.5	868.9	873.8
27.5°	812.7	818.5	831.1	848.6	855.4
30°	786.5	792.3	807.8	828.2	834.0
32.5°	758.4	767.1	783.6	804.9	811.7
35°	729.3	737.0	756.4	781.7	789.4
37.5°	697.3	708.0	729.3	756.4	766.1
40°	666.3	677.9	702.1	731.2	742.9
42.5°	635.2	646.9	674.0	707.0	718.6
45°	600.3	612.9	643.9	678.9	691.5
47.5°	565.4	580.9	614.9	651.7	665.3
50°	529.5	547.0	583.8	622.6	638.1
52.5°	497.5	514.0	552.8	594.5	609.0
55°	460.7	479.1	521.8	564.4	580.9
57.5°	422.8	443.2	488.8	535.3	551.8
60°	386.0	408.3	458.7	505.3	523.7
62.5°	350.1	372.4	424.8	473.3	491.7
65°	311.3	337.5	391.8	441.3	458.7
67.5°	274.5	302.6	359.8	408.3	425.7
70°	238.6	265.7	326.8	374.3	391.8
72.5°	199.8	230.8	291.9	341.4	359.8
75°	161.0	197.8	258.0	306.5	323.9
77.5°	125.1	162.9	223.1	262.8	271.5
80°	92.1	130.9	183.3	211.4	222.1
82.5°	59.2	97.9	139.7	160.0	168.7
85°	33.0	65.0	91.2	102.8	106.7
87.5°	13.6	28.1	36.9	41.7	41.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)