

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: P313823

Luminaire Tested: **24FCZ2-30-UNV-L83050-CA125-W2A-U-4500K**

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: P313823
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-L83050-CA125-W2A-U-4500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 4500K 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

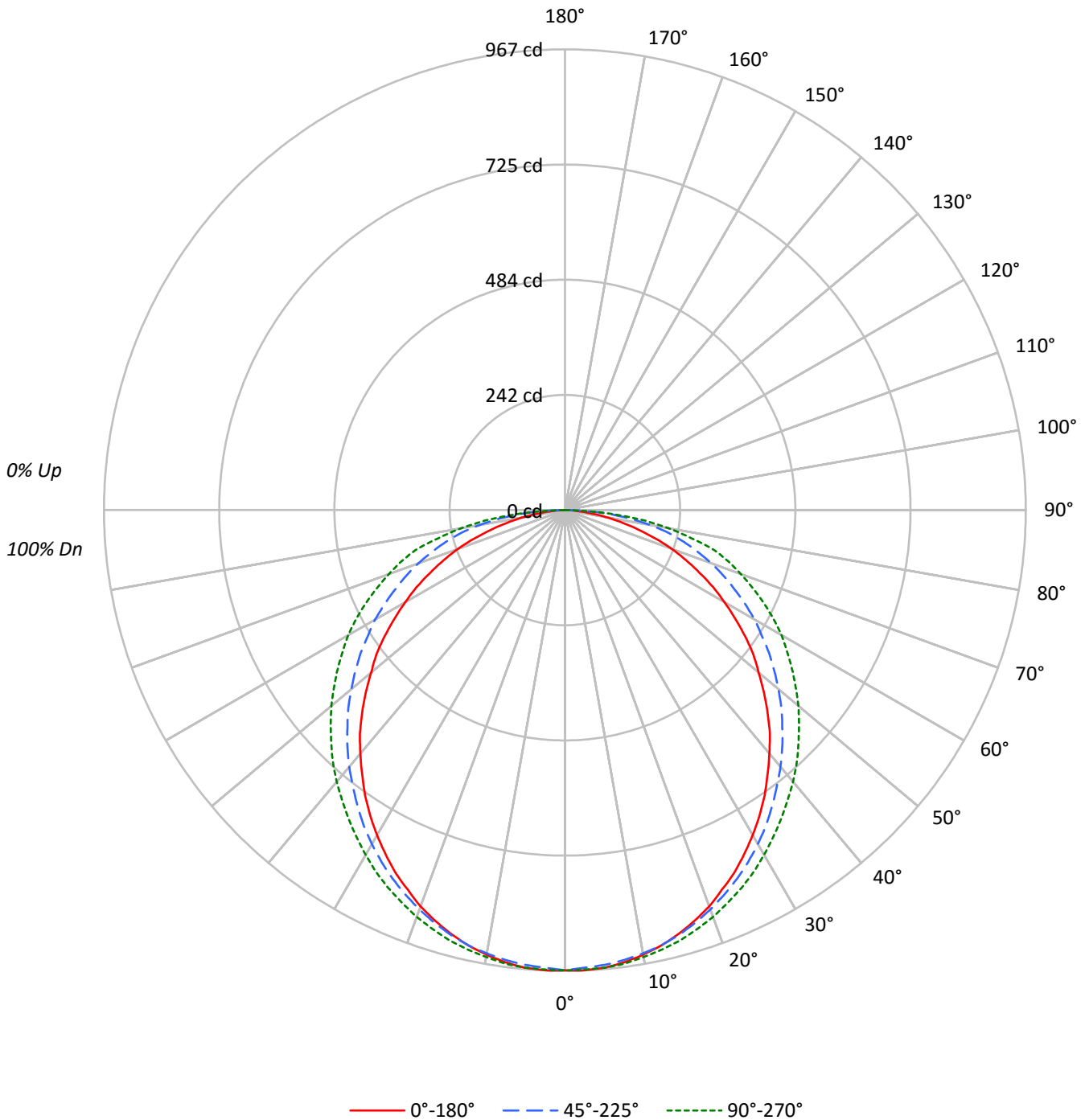
Lumens per Lamp: N/A
Luminaire Lumens: 2929.0 lumens
Efficiency: N/A
Efficacy: 119.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 24.5
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: P313823
CATALOG NUMBER: 24FCZ2-30-UNV-L83050-CA125-W2A-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P313823

CATALOG NUMBER: 24FCZ2-30-UNV-L83050-CA125-W2A-U-4500K

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	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°	1300	1300	1300
5°	1302	1294	1302
10°	1295	1291	1301
15°	1283	1286	1302
20°	1268	1277	1301
25°	1248	1268	1300
30°	1224	1258	1298
35°	1200	1245	1299
40°	1173	1236	1307
45°	1145	1228	1318
50°	1111	1225	1338
55°	1083	1226	1365
60°	1041	1237	1412
65°	993	1250	1464
70°	941	1288	1544
75°	839	1344	1687
80°	715	1423	1724
85°	509	1409	1650



TEST NUMBER: P313823

CATALOG NUMBER: 24FCZ2-30-UNV-L83050-CA125-W2A-U-4500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.4	3.1
10°-20°	261.4	8.9
20°-30°	394.8	13.5
30°-40°	475.8	16.2
40°-50°	499.5	17.1
50°-60°	467.3	16.0
60°-70°	385.9	13.2
70°-80°	263.0	9.0
80°-90°	89.7	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°	747.6	25.5
0°-40°	1223.5	41.8
0°-60°	2190.4	74.8
0°-90°	2929.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2929.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	966	966	966	966	966	
5°	964	963	958	964	964	91
15°	921	922	923	933	935	260
25°	841	844	854	871	876	387
35°	731	739	758	783	791	457
45°	602	614	645	680	693	464
55°	462	480	523	566	582	412
65°	312	338	393	442	460	309
75°	161	198	258	307	325	172
85°	33	65	91	103	107	41
90°	0	0	0	0	0	



TEST NUMBER: P313823

CATALOG NUMBER: 24FCZ2-30-UNV-L83050-CA125-W2A-U-4500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	966.0	966.0	966.0	966.0	966.0
2.5°	966.9	966.0	961.1	966.0	965.0
5°	964.0	963.0	958.2	964.0	964.0
7.5°	957.2	957.2	952.4	959.2	960.1
10°	947.5	947.5	944.6	952.4	952.4
12.5°	935.8	935.8	935.8	943.6	944.6
15°	921.3	922.2	923.2	932.9	934.9
17.5°	903.8	905.7	908.6	920.3	922.2
20°	885.3	887.2	892.1	905.7	908.6
22.5°	862.0	866.8	873.6	889.2	892.1
25°	840.6	844.5	854.2	870.7	875.6
27.5°	814.4	820.2	832.8	850.3	857.1
30°	788.1	794.0	809.5	829.9	835.7
32.5°	759.9	768.7	785.2	806.6	813.4
35°	730.8	738.6	758.0	783.3	791.0
37.5°	698.7	709.4	730.8	758.0	767.7
40°	667.6	679.3	703.6	732.7	744.4
42.5°	636.5	648.2	675.4	708.4	720.1
45°	601.5	614.2	645.3	680.3	692.9
47.5°	566.6	582.1	616.1	653.0	666.6
50°	530.6	548.1	585.0	623.9	639.4
52.5°	498.5	515.0	553.9	595.7	610.3
55°	461.6	480.1	522.8	565.6	582.1
57.5°	423.7	444.1	489.8	536.4	552.9
60°	386.8	409.1	459.7	506.3	524.8
62.5°	350.8	373.2	425.6	474.2	492.7
65°	311.9	338.2	392.6	442.2	459.7
67.5°	275.0	303.2	360.5	409.1	426.6
70°	239.1	266.3	327.5	375.1	392.6
72.5°	200.2	231.3	292.5	342.1	360.5
75°	161.3	198.2	258.5	307.1	324.6
77.5°	125.4	163.3	223.5	263.4	272.1
80°	92.3	131.2	183.7	211.9	222.5
82.5°	59.3	98.2	139.9	160.3	169.1
85°	33.0	65.1	91.3	103.0	106.9
87.5°	13.6	28.2	36.9	41.8	41.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)