

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: P314026

Luminaire Tested: **24FCZ2-50-UNV-L83050-CP125-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: P314026
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: 24FCZ2-50-UNV-L83050-CP125-W2A-U-3500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (168) 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: 4468.0 lumens
Efficiency: N/A
Efficacy: 104.6 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

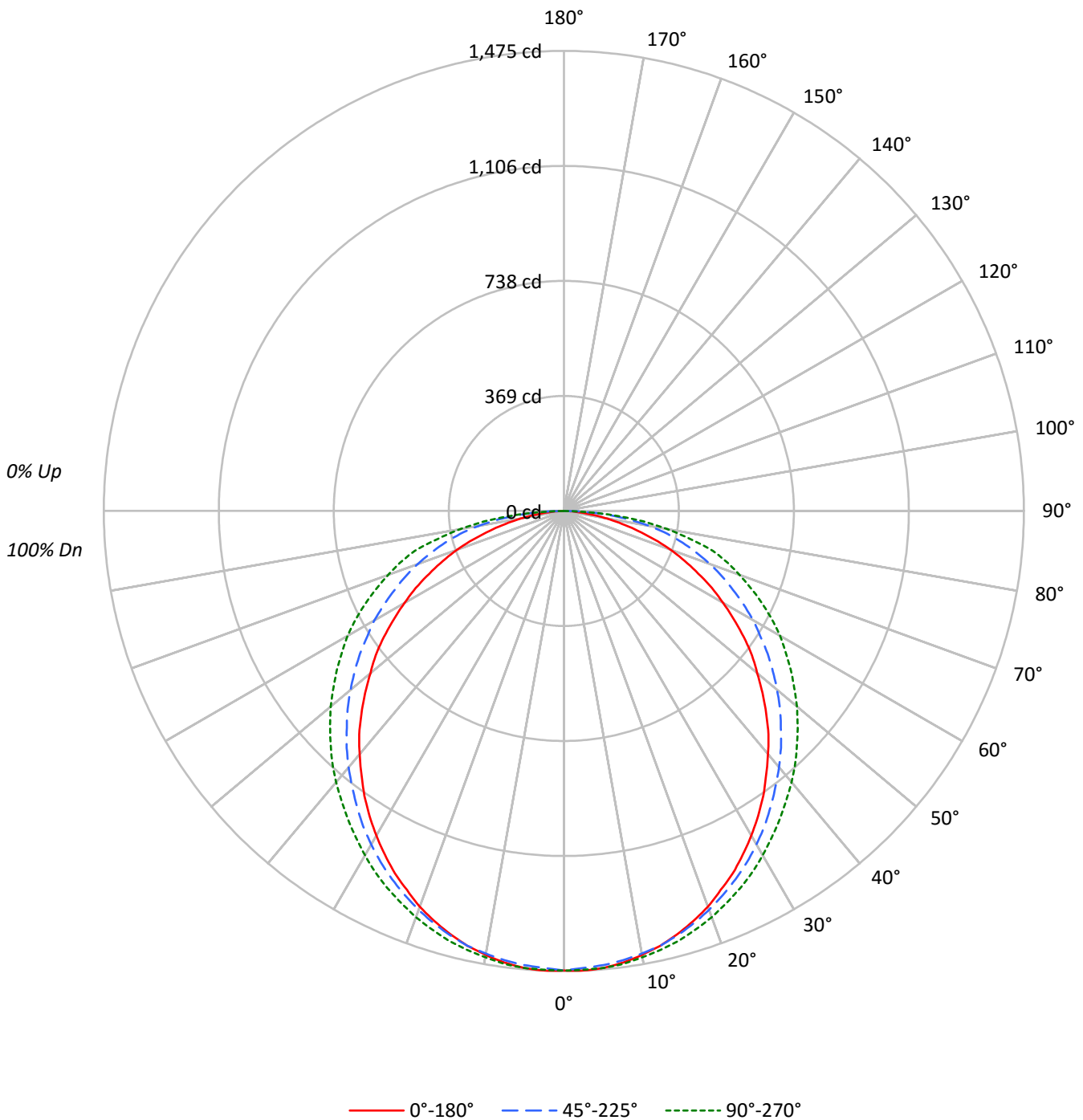
Input Watts (W): 42.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P314026

CATALOG NUMBER: 24FCZ2-50-UNV-L83050-CP125-W2A-U-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P314026

CATALOG NUMBER: 24FCZ2-50-UNV-L83050-CP125-W2A-U-3500K

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	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°	1983	1983	1983
5°	1986	1974	1986
10°	1975	1969	1985
15°	1958	1962	1986
20°	1934	1948	1985
25°	1904	1934	1983
30°	1868	1918	1981
35°	1831	1899	1982
40°	1789	1885	1994
45°	1746	1873	2011
50°	1694	1868	2042
55°	1652	1871	2083
60°	1588	1887	2154
65°	1515	1907	2232
70°	1435	1965	2356
75°	1279	2050	2574
80°	1091	2171	2631
85°	778	2150	2518



TEST NUMBER: P314026

CATALOG NUMBER: 24FCZ2-50-UNV-L83050-CP125-W2A-U-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.5	3.1
10°-20°	398.7	8.9
20°-30°	602.3	13.5
30°-40°	725.9	16.2
40°-50°	762.0	17.1
50°-60°	712.9	16.0
60°-70°	588.7	13.2
70°-80°	401.2	9.0
80°-90°	136.8	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°	1140.4	25.5
0°-40°	1866.3	41.8
0°-60°	3341.3	74.8
0°-90°	4468.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4468.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1474	1474	1474	1474	1474	
5°	1470	1469	1462	1470	1470	140
15°	1405	1407	1408	1423	1426	396
25°	1282	1288	1303	1328	1336	590
35°	1115	1127	1156	1195	1207	697
45°	918	937	984	1038	1057	708
55°	704	732	798	863	888	628
65°	476	516	599	674	701	472
75°	246	302	394	468	495	262
85°	50	99	139	157	163	63
90°	0	0	0	0	0	



TEST NUMBER: P314026

CATALOG NUMBER: 24FCZ2-50-UNV-L83050-CP125-W2A-U-3500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1473.5	1473.5	1473.5	1473.5	1473.5
2.5°	1475.0	1473.5	1466.1	1473.5	1472.0
5°	1470.5	1469.1	1461.6	1470.5	1470.5
7.5°	1460.2	1460.2	1452.8	1463.1	1464.6
10°	1445.3	1445.3	1440.9	1452.8	1452.8
12.5°	1427.6	1427.6	1427.6	1439.4	1440.9
15°	1405.3	1406.8	1408.3	1423.1	1426.1
17.5°	1378.6	1381.6	1386.0	1403.8	1406.8
20°	1350.5	1353.4	1360.8	1381.6	1386.0
22.5°	1314.9	1322.3	1332.7	1356.4	1360.8
25°	1282.3	1288.2	1303.0	1328.2	1335.6
27.5°	1242.3	1251.1	1270.4	1297.1	1307.5
30°	1202.2	1211.1	1234.8	1266.0	1274.9
32.5°	1159.2	1172.6	1197.8	1230.4	1240.8
35°	1114.8	1126.6	1156.3	1194.8	1206.7
37.5°	1065.8	1082.2	1114.8	1156.3	1171.1
40°	1018.4	1036.2	1073.3	1117.7	1135.5
42.5°	971.0	988.8	1030.3	1080.7	1098.5
45°	917.6	936.9	984.3	1037.7	1057.0
47.5°	864.2	888.0	939.8	996.2	1016.9
50°	809.4	836.1	892.4	951.7	975.4
52.5°	760.5	785.7	845.0	908.7	930.9
55°	704.1	732.3	797.5	862.8	888.0
57.5°	646.3	677.5	747.1	818.3	843.5
60°	590.0	624.1	701.2	772.3	800.5
62.5°	535.1	569.2	649.3	723.4	751.6
65°	475.9	515.9	598.9	674.5	701.2
67.5°	419.5	462.5	550.0	624.1	650.8
70°	364.7	406.2	499.6	572.2	598.9
72.5°	305.4	352.8	446.2	521.8	550.0
75°	246.1	302.4	394.3	468.4	495.1
77.5°	191.2	249.0	341.0	401.7	415.1
80°	140.8	200.1	280.2	323.2	339.5
82.5°	90.4	149.7	213.5	244.6	257.9
85°	50.4	99.3	139.3	157.1	163.1
87.5°	20.8	43.0	56.3	63.7	63.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)