

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: P311579

Luminaire Tested: **24FCZ2-50-UNV-L82765-S-CA125-W2A-U-2700K**

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: P311579
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
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-L82765-S-CA125-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 2700K 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: 4394.0 lumens
Efficiency: N/A
Efficacy: 102.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.27 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

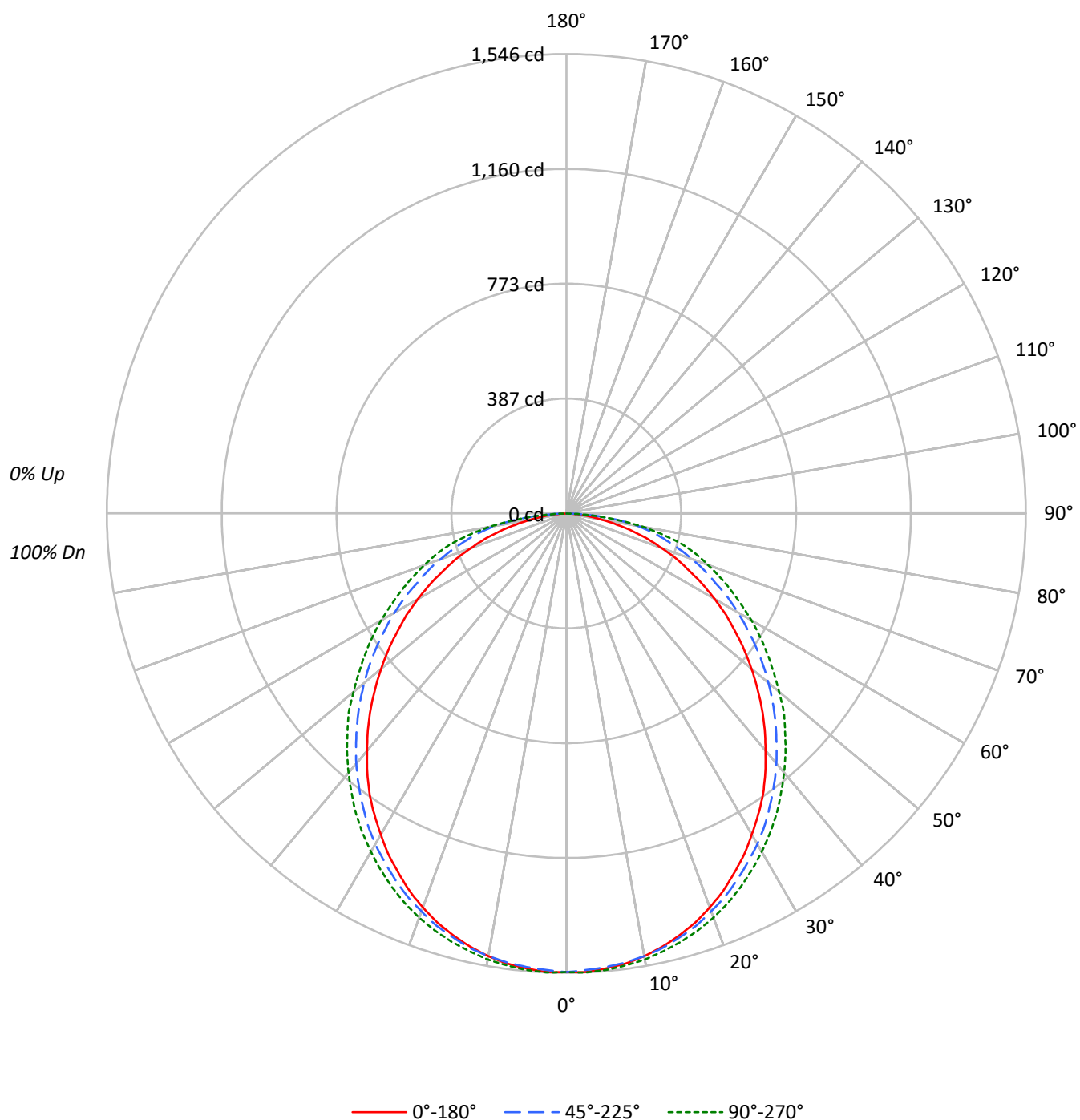
Input Watts (W): 42.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P311579

CATALOG NUMBER: 24FCZ2-50-UNV-L82765-S-CA125-W2A-U-2700K

Luminous Intensity Polar Plot





TEST NUMBER: P311579

CATALOG NUMBER: 24FCZ2-50-UNV-L82765-S-CA125-W2A-U-2700K

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	99	95	106	101	97	93	97	93	90		93	90	88		83
2	98	90	83	77	96	88	81	76	84	79	74		81	76	72		69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		58
4	82	70	61	54	80	68	60	54	66	59	53		63	57	52		49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		42
6	70	56	47	40	68	55	47	40	53	46	40		52	45	40		37
7	64	51	42	36	63	50	42	36	48	41	35		47	40	35		33
8	60	46	38	32	58	46	37	32	44	37	32		43	36	31		29
9	56	43	34	29	55	42	34	29	41	34	28		40	33	28		26
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2077	2077	2077
5°	2076	2070	2083
10°	2067	2067	2082
15°	2047	2057	2078
20°	2020	2040	2072
25°	1983	2020	2060
30°	1939	1997	2043
35°	1896	1965	2027
40°	1831	1932	2003
45°	1771	1893	1981
50°	1703	1858	1957
55°	1627	1824	1938
60°	1551	1795	1934
65°	1453	1764	1946
70°	1345	1773	1998
75°	1205	1807	2111
80°	973	1914	2066
85°	733	1681	1638



TEST NUMBER: P311579

CATALOG NUMBER: 24FCZ2-50-UNV-L82765-S-CA125-W2A-U-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.1	3.3
10°-20°	417.6	9.5
20°-30°	627.7	14.3
30°-40°	747.7	17.0
40°-50°	765.2	17.4
50°-60°	688.9	15.7
60°-70°	541.0	12.3
70°-80°	351.1	8.0
80°-90°	108.6	2.5
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°	1191.4	27.1
0°-40°	1939.1	44.1
0°-60°	3393.2	77.2
0°-90°	4394.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4394.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1544	1544	1544	1544	1544	
5°	1537	1540	1532	1541	1542	146
15°	1470	1474	1477	1489	1492	414
25°	1336	1347	1361	1383	1387	615
35°	1154	1168	1196	1225	1234	720
45°	931	953	995	1033	1041	718
55°	694	724	777	818	826	622
65°	456	491	554	600	611	454
75°	232	276	348	395	406	245
85°	48	88	109	106	106	57
90°	0	0	0	0	0	



TEST NUMBER: P311579

CATALOG NUMBER: 24FCZ2-50-UNV-L82765-S-CA125-W2A-U-2700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1543.6	1543.6	1543.6	1543.6	1543.6
2.5°	1545.0	1545.0	1538.1	1545.0	1546.4
5°	1536.7	1539.5	1532.5	1540.8	1542.2
7.5°	1528.3	1528.3	1524.1	1532.5	1533.9
10°	1512.9	1514.3	1512.9	1522.7	1524.1
12.5°	1493.4	1496.2	1497.6	1507.4	1508.7
15°	1469.7	1473.9	1476.6	1489.2	1492.0
17.5°	1443.2	1447.3	1454.3	1468.3	1471.1
20°	1411.0	1416.6	1425.0	1443.2	1447.3
22.5°	1376.2	1381.7	1395.7	1412.4	1419.4
25°	1335.7	1346.8	1360.8	1383.1	1387.3
27.5°	1295.2	1305.0	1323.1	1346.8	1352.4
30°	1247.8	1263.1	1285.4	1309.2	1314.7
32.5°	1201.7	1217.0	1243.6	1268.7	1275.7
35°	1154.2	1168.2	1196.1	1225.4	1233.8
37.5°	1099.8	1118.0	1148.7	1178.0	1186.3
40°	1042.6	1064.9	1099.8	1130.5	1140.3
42.5°	988.2	1011.9	1046.8	1080.3	1091.4
45°	930.9	953.3	995.1	1032.8	1041.2
47.5°	872.3	897.4	942.1	979.8	993.7
50°	813.7	840.2	887.7	926.7	935.1
52.5°	755.1	783.0	833.2	875.1	879.3
55°	693.7	724.4	777.4	817.9	826.3
57.5°	637.8	664.4	721.6	763.4	773.2
60°	576.4	605.7	667.1	706.2	718.8
62.5°	517.8	548.5	612.7	651.8	663.0
65°	456.4	491.3	554.1	600.1	611.3
67.5°	403.4	436.9	503.8	548.5	559.7
70°	341.9	379.6	450.8	496.9	508.0
72.5°	288.9	328.0	399.2	443.8	460.6
75°	231.7	276.3	347.5	395.0	406.1
77.5°	175.9	227.5	300.1	336.4	336.4
80°	125.6	180.0	247.0	263.8	266.6
82.5°	82.3	135.4	182.8	181.4	181.4
85°	47.5	87.9	108.9	106.1	106.1
87.5°	18.1	36.3	39.1	39.1	37.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)