

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: P310910

Luminaire Tested: **24FCZ2-50-UNV-L82765-CA125-W2A-U-5500K**

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: P310910
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-L82765-CA125-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 5500K 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: 4738.0 lumens
Efficiency: N/A
Efficacy: 107.9 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

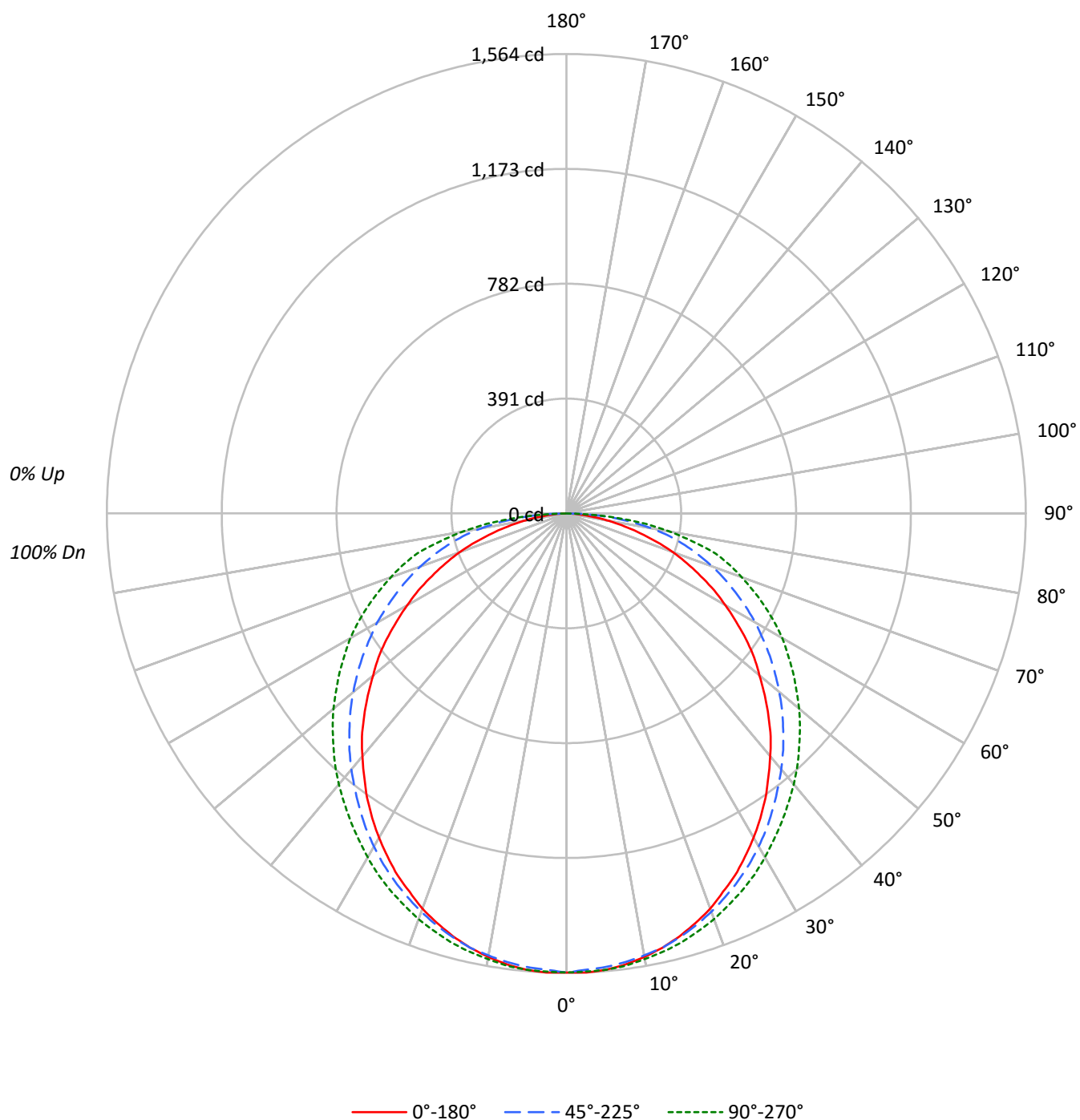
Input Watts (W): 43.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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°	2102	2102	2102
5°	2106	2093	2106
10°	2094	2088	2105
15°	2076	2080	2106
20°	2051	2066	2105
25°	2019	2051	2103
30°	1981	2034	2100
35°	1942	2014	2102
40°	1897	1999	2115
45°	1852	1986	2133
50°	1797	1981	2165
55°	1752	1984	2209
60°	1683	2001	2284
65°	1606	2022	2367
70°	1521	2084	2498
75°	1356	2174	2729
80°	1157	2302	2789
85°	824	2282	2669



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.9	3.1
10°-20°	422.8	8.9
20°-30°	638.7	13.5
30°-40°	769.7	16.2
40°-50°	808.1	17.1
50°-60°	756.0	16.0
60°-70°	624.3	13.2
70°-80°	425.4	9.0
80°-90°	145.1	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°	1209.4	25.5
0°-40°	1979.1	41.8
0°-60°	3543.2	74.8
0°-90°	4738.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4738.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1563	1563	1563	1563	1563	
5°	1559	1558	1550	1559	1559	148
15°	1490	1492	1493	1509	1512	420
25°	1360	1366	1382	1408	1416	626
35°	1182	1195	1226	1267	1280	739
45°	973	994	1044	1100	1121	750
55°	747	777	846	915	942	666
65°	505	547	635	715	744	501
75°	261	321	418	497	525	278
85°	53	105	148	167	173	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1562.6	1562.6	1562.6	1562.6	1562.6
2.5°	1564.1	1562.6	1554.7	1562.6	1561.0
5°	1559.4	1557.8	1550.0	1559.4	1559.4
7.5°	1548.4	1548.4	1540.5	1551.5	1553.1
10°	1532.7	1532.7	1528.0	1540.5	1540.5
12.5°	1513.8	1513.8	1513.8	1526.4	1528.0
15°	1490.2	1491.8	1493.4	1509.1	1512.2
17.5°	1461.9	1465.1	1469.8	1488.7	1491.8
20°	1432.1	1435.2	1443.1	1465.1	1469.8
22.5°	1394.3	1402.2	1413.2	1438.4	1443.1
25°	1359.8	1366.1	1381.8	1408.5	1416.4
27.5°	1317.3	1326.8	1347.2	1375.5	1386.5
30°	1274.9	1284.3	1309.5	1342.5	1351.9
32.5°	1229.3	1243.4	1270.2	1304.7	1315.7
35°	1182.1	1194.7	1226.1	1267.0	1279.6
37.5°	1130.3	1147.5	1182.1	1226.1	1241.9
40°	1080.0	1098.8	1138.1	1185.3	1204.1
42.5°	1029.6	1048.5	1092.5	1146.0	1164.8
45°	973.1	993.5	1043.8	1100.4	1120.8
47.5°	916.5	941.6	996.6	1056.4	1078.4
50°	858.3	886.6	946.3	1009.2	1034.4
52.5°	806.4	833.2	896.0	963.6	987.2
55°	746.7	776.6	845.7	914.9	941.6
57.5°	685.4	718.4	792.3	867.7	894.5
60°	625.6	661.8	743.5	819.0	848.9
62.5°	567.5	603.6	688.5	767.1	797.0
65°	504.6	547.1	635.1	715.3	743.5
67.5°	444.9	490.5	583.2	661.8	690.1
70°	386.7	430.7	529.8	606.8	635.1
72.5°	323.8	374.1	473.2	553.3	583.2
75°	260.9	320.7	418.1	496.7	525.0
77.5°	202.8	264.1	361.6	426.0	440.2
80°	149.3	212.2	297.1	342.7	360.0
82.5°	95.9	158.8	226.4	259.4	273.5
85°	53.4	105.3	147.8	166.6	172.9
87.5°	22.0	45.6	59.7	67.6	67.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)