

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: P310919

Luminaire Tested: **24FCZ2-50-UNV-L82765-CP125-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: P310919
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-CP125-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB 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: 4646.0 lumens
Efficiency: N/A
Efficacy: 105.8 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

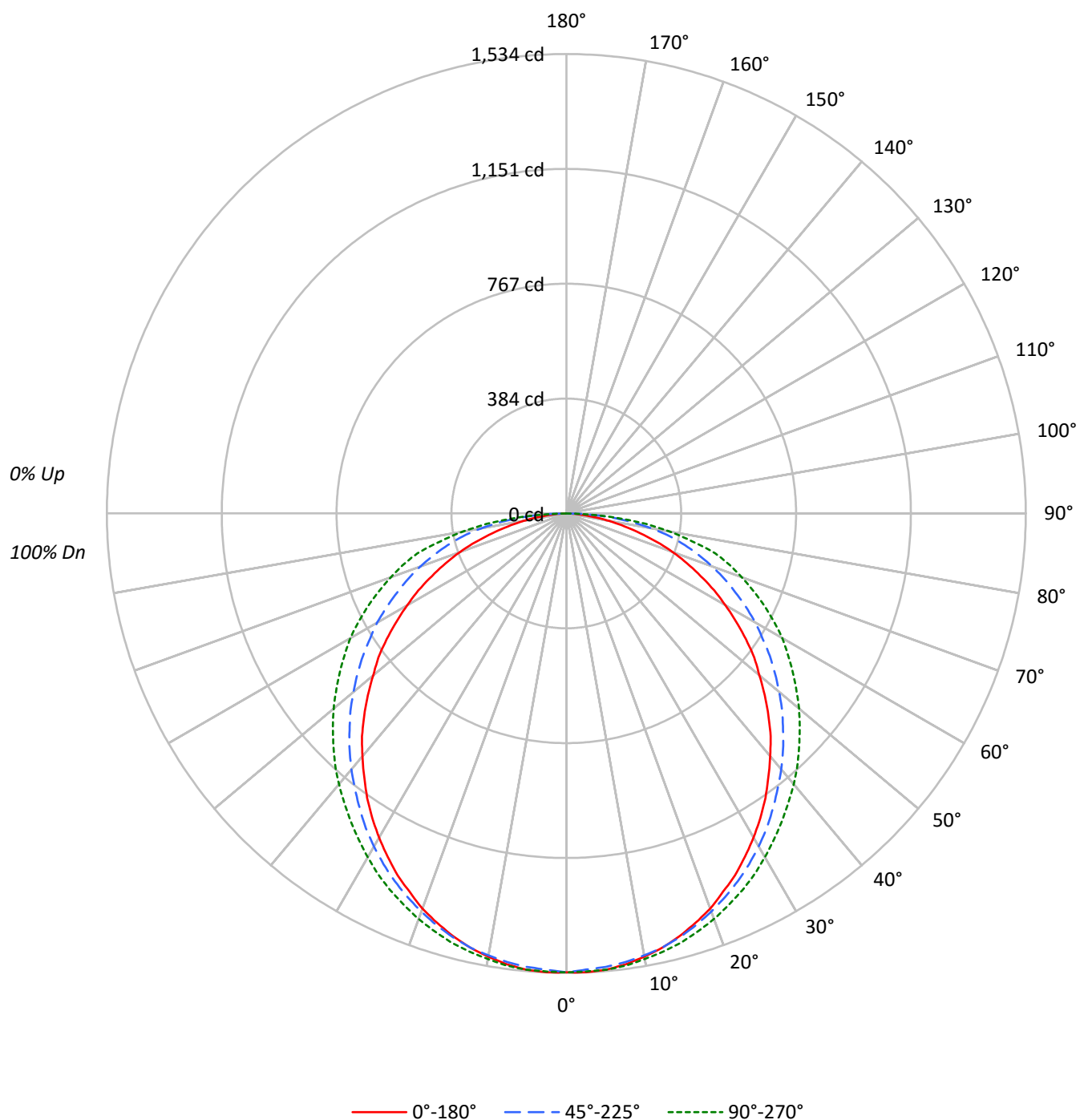
Input Watts (W): 43.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2062	2062	2062
5°	2065	2053	2065
10°	2053	2047	2064
15°	2036	2040	2066
20°	2011	2026	2064
25°	1980	2011	2062
30°	1942	1995	2060
35°	1904	1975	2061
40°	1860	1960	2074
45°	1816	1948	2091
50°	1762	1942	2123
55°	1718	1945	2166
60°	1651	1962	2240
65°	1575	1982	2321
70°	1492	2044	2450
75°	1330	2131	2676
80°	1134	2257	2735
85°	809	2237	2618



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.0	3.1
10°-20°	414.6	8.9
20°-30°	626.3	13.5
30°-40°	754.8	16.2
40°-50°	792.4	17.1
50°-60°	741.3	16.0
60°-70°	612.2	13.2
70°-80°	417.2	9.0
80°-90°	142.3	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°	1185.9	25.5
0°-40°	1940.7	41.8
0°-60°	3474.4	74.8
0°-90°	4646.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4646.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1532	1532	1532	1532	1532	
5°	1529	1528	1520	1529	1529	145
15°	1461	1463	1464	1480	1483	412
25°	1333	1340	1355	1381	1389	613
35°	1159	1172	1202	1242	1255	724
45°	954	974	1024	1079	1099	736
55°	732	762	829	897	923	654
65°	495	536	623	701	729	491
75°	256	314	410	487	515	273
85°	52	103	145	163	170	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1532.2	1532.2	1532.2	1532.2	1532.2
2.5°	1533.8	1532.2	1524.5	1532.2	1530.7
5°	1529.1	1527.6	1519.9	1529.1	1529.1
7.5°	1518.3	1518.3	1510.6	1521.4	1523.0
10°	1502.9	1502.9	1498.3	1510.6	1510.6
12.5°	1484.4	1484.4	1484.4	1496.8	1498.3
15°	1461.3	1462.8	1464.4	1479.8	1482.9
17.5°	1433.6	1436.6	1441.3	1459.8	1462.8
20°	1404.3	1407.4	1415.1	1436.6	1441.3
22.5°	1367.3	1375.0	1385.8	1410.4	1415.1
25°	1333.4	1339.5	1354.9	1381.1	1388.9
27.5°	1291.7	1301.0	1321.0	1348.8	1359.6
30°	1250.1	1259.4	1284.0	1316.4	1325.7
32.5°	1205.4	1219.3	1245.5	1279.4	1290.2
35°	1159.2	1171.5	1202.3	1242.4	1254.7
37.5°	1108.3	1125.3	1159.2	1202.3	1217.8
40°	1059.0	1077.5	1116.0	1162.3	1180.8
42.5°	1009.7	1028.2	1071.3	1123.7	1142.2
45°	954.2	974.2	1023.5	1079.0	1099.1
47.5°	898.7	923.3	977.3	1035.9	1057.4
50°	841.6	869.4	928.0	989.6	1014.3
52.5°	790.8	817.0	878.6	944.9	968.0
55°	732.2	761.5	829.3	897.1	923.3
57.5°	672.1	704.4	776.9	850.9	877.1
60°	613.5	649.0	729.1	803.1	832.4
62.5°	556.5	591.9	675.2	752.2	781.5
65°	494.8	536.4	622.7	701.4	729.1
67.5°	436.2	480.9	571.9	649.0	676.7
70°	379.2	422.4	519.5	595.0	622.7
72.5°	317.5	366.9	464.0	542.6	571.9
75°	255.9	314.5	410.0	487.1	514.8
77.5°	198.8	259.0	354.5	417.7	431.6
80°	146.4	208.1	291.3	336.0	353.0
82.5°	94.0	155.7	222.0	254.3	268.2
85°	52.4	103.3	144.9	163.4	169.6
87.5°	21.6	44.7	58.6	66.3	66.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)