

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: P310651

Luminaire Tested: **24FCZ2-35-UNV-L82765-CP125-W2A-U-6500K**

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: P310651
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: 24FCZ2-35-UNV-L82765-CP125-W2A-U-6500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (168) 6500K 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: 3321.0 lumens
Efficiency: N/A
Efficacy: 113.7 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

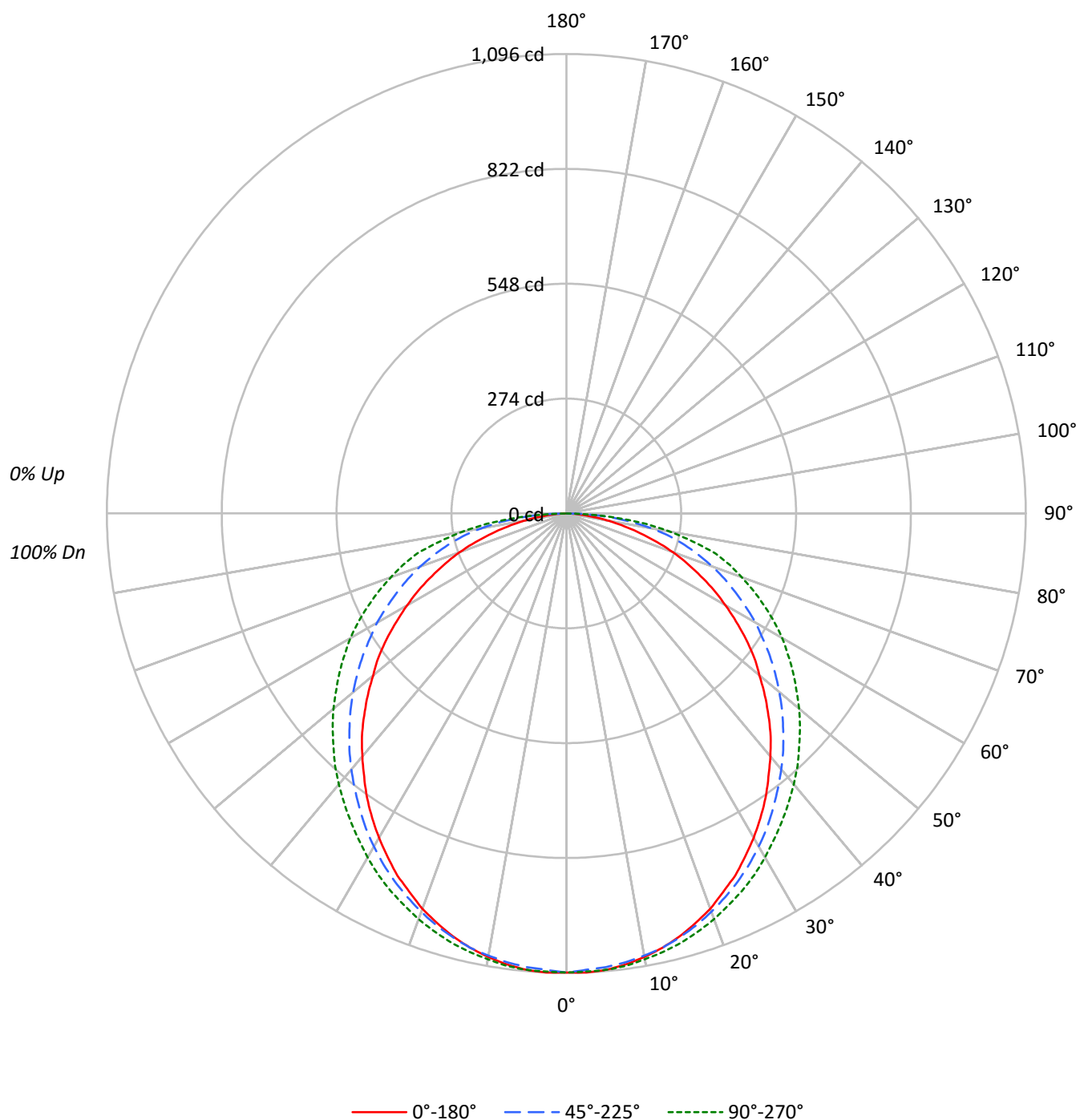
Input Watts (W): 29.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1474	1474	1474
5°	1476	1467	1476
10°	1468	1463	1475
15°	1455	1458	1477
20°	1437	1448	1475
25°	1415	1438	1474
30°	1388	1426	1472
35°	1361	1412	1473
40°	1330	1401	1482
45°	1298	1392	1495
50°	1259	1388	1518
55°	1228	1391	1548
60°	1180	1403	1601
65°	1126	1417	1659
70°	1066	1461	1751
75°	951	1524	1913
80°	811	1613	1955
85°	579	1599	1871



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.6	3.1
10°-20°	296.4	8.9
20°-30°	447.7	13.5
30°-40°	539.5	16.2
40°-50°	566.4	17.1
50°-60°	529.9	16.0
60°-70°	437.6	13.2
70°-80°	298.2	9.0
80°-90°	101.7	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°	847.7	25.5
0°-40°	1387.2	41.8
0°-60°	2483.5	74.8
0°-90°	3321.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3321.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1095	1095	1095	1095	1095	
5°	1093	1092	1086	1093	1093	104
15°	1045	1046	1047	1058	1060	294
25°	953	958	968	987	993	439
35°	829	837	859	888	897	518
45°	682	696	732	771	786	526
55°	523	544	593	641	660	467
65°	354	383	445	501	521	351
75°	183	225	293	348	368	195
85°	38	74	104	117	121	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1095.2	1095.2	1095.2	1095.2	1095.2
2.5°	1096.3	1095.2	1089.7	1095.2	1094.1
5°	1093.0	1091.9	1086.4	1093.0	1093.0
7.5°	1085.3	1085.3	1079.8	1087.5	1088.6
10°	1074.3	1074.3	1071.0	1079.8	1079.8
12.5°	1061.1	1061.1	1061.1	1069.9	1071.0
15°	1044.6	1045.7	1046.8	1057.8	1060.0
17.5°	1024.7	1026.9	1030.2	1043.5	1045.7
20°	1003.8	1006.0	1011.5	1026.9	1030.2
22.5°	977.3	982.8	990.6	1008.2	1011.5
25°	953.1	957.5	968.5	987.3	992.8
27.5°	923.3	930.0	944.3	964.1	971.8
30°	893.6	900.2	917.8	941.0	947.6
32.5°	861.6	871.6	890.3	914.5	922.2
35°	828.6	837.4	859.4	888.1	896.9
37.5°	792.2	804.3	828.6	859.4	870.5
40°	757.0	770.2	797.7	830.8	844.0
42.5°	721.7	734.9	765.8	803.2	816.5
45°	682.0	696.4	731.6	771.3	785.6
47.5°	642.4	660.0	698.6	740.4	755.9
50°	601.6	621.4	663.3	707.4	725.0
52.5°	565.2	584.0	628.1	675.4	692.0
55°	523.4	544.3	592.8	641.3	660.0
57.5°	480.4	503.5	555.3	608.2	627.0
60°	438.5	463.9	521.2	574.1	595.0
62.5°	397.8	423.1	482.6	537.7	558.6
65°	353.7	383.4	445.1	501.3	521.2
67.5°	311.8	343.8	408.8	463.9	483.7
70°	271.1	301.9	371.3	425.3	445.1
72.5°	227.0	262.2	331.7	387.9	408.8
75°	182.9	224.8	293.1	348.2	368.0
77.5°	142.1	185.1	253.4	298.6	308.5
80°	104.7	148.7	208.2	240.2	252.3
82.5°	67.2	111.3	158.7	181.8	191.7
85°	37.5	73.8	103.6	116.8	121.2
87.5°	15.4	32.0	41.9	47.4	47.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)