

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: P310642

Luminaire Tested: **24FCZ2-35-UNV-L82765-CA125-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: P310642
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-CA125-W2A-U-6500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC 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: 3387.0 lumens
Efficiency: N/A
Efficacy: 116.0 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

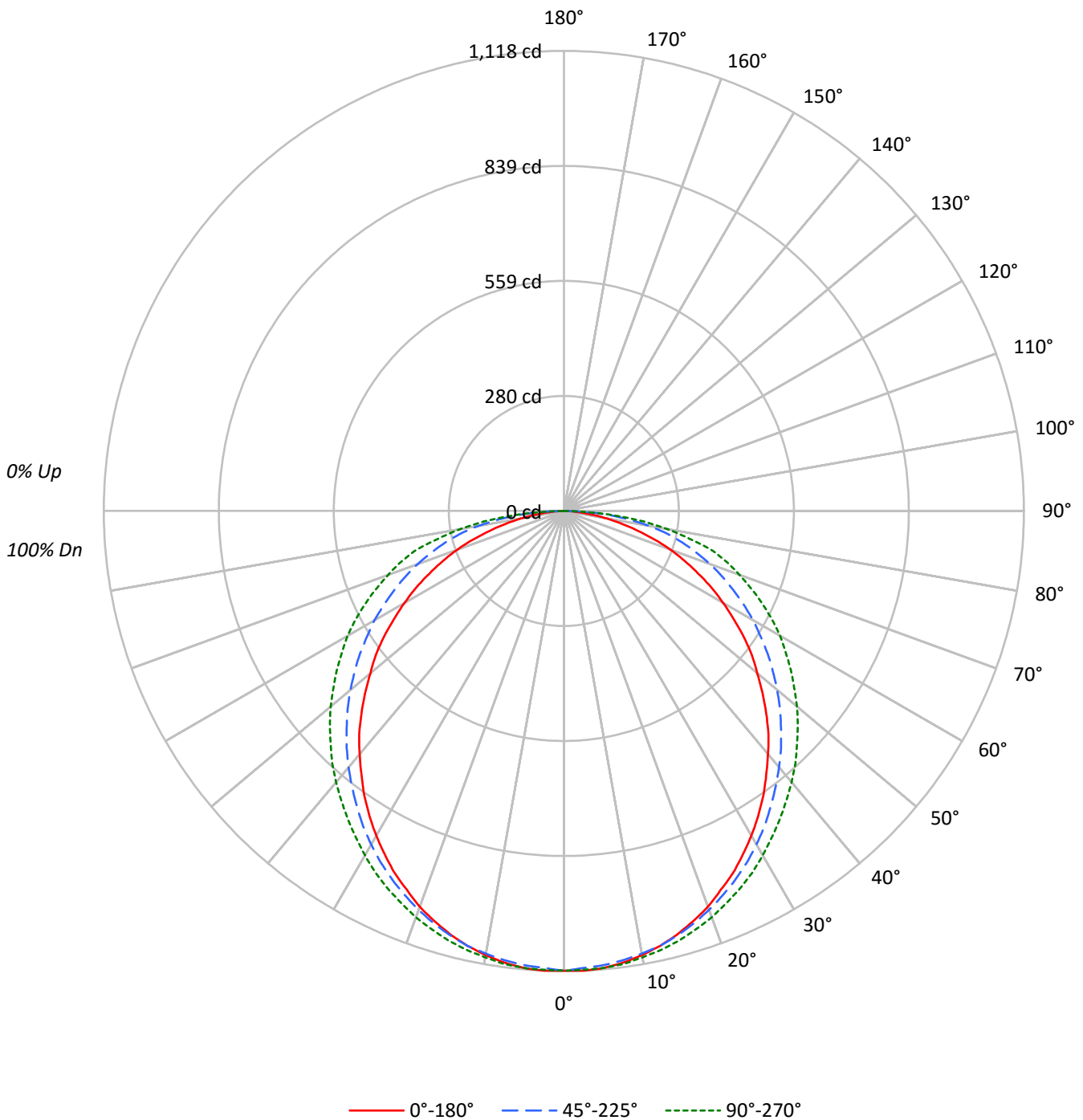
Input Watts (W): 29.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				10	0
RW	70	50	30	10	70	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°	1503	1503	1503
5°	1506	1496	1506
10°	1497	1492	1505
15°	1484	1487	1506
20°	1466	1477	1504
25°	1443	1466	1503
30°	1416	1454	1501
35°	1388	1440	1502
40°	1356	1429	1512
45°	1324	1420	1525
50°	1284	1416	1548
55°	1252	1418	1579
60°	1204	1430	1633
65°	1148	1445	1692
70°	1087	1490	1786
75°	970	1554	1951
80°	828	1646	1994
85°	590	1630	1908



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.7	3.1
10°-20°	302.3	8.9
20°-30°	456.5	13.5
30°-40°	550.2	16.2
40°-50°	577.7	17.1
50°-60°	540.4	16.0
60°-70°	446.3	13.2
70°-80°	304.1	9.0
80°-90°	103.7	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°	864.5	25.5
0°-40°	1414.8	41.8
0°-60°	2532.9	74.8
0°-90°	3387.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3387.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1117	1117	1117	1117	1117	
5°	1115	1114	1108	1115	1115	106
15°	1065	1066	1068	1079	1081	300
25°	972	976	988	1007	1012	447
35°	845	854	876	906	915	528
45°	696	710	746	787	801	536
55°	534	555	605	654	673	476
65°	361	391	454	511	532	358
75°	186	229	299	355	375	199
85°	38	75	106	119	124	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1117.0	1117.0	1117.0	1117.0	1117.0
2.5°	1118.1	1117.0	1111.4	1117.0	1115.9
5°	1114.8	1113.6	1108.0	1114.8	1114.8
7.5°	1106.9	1106.9	1101.3	1109.1	1110.3
10°	1095.7	1095.7	1092.3	1101.3	1101.3
12.5°	1082.2	1082.2	1082.2	1091.2	1092.3
15°	1065.3	1066.4	1067.6	1078.8	1081.0
17.5°	1045.1	1047.3	1050.7	1064.2	1066.4
20°	1023.7	1026.0	1031.6	1047.3	1050.7
22.5°	996.8	1002.4	1010.2	1028.2	1031.6
25°	972.0	976.5	987.8	1006.9	1012.5
27.5°	941.7	948.4	963.0	983.3	991.1
30°	911.4	918.1	936.1	959.7	966.4
32.5°	878.8	888.9	908.0	932.7	940.6
35°	845.1	854.0	876.5	905.7	914.7
37.5°	808.0	820.3	845.1	876.5	887.8
40°	772.0	785.5	813.6	847.3	860.8
42.5°	736.1	749.5	781.0	819.2	832.7
45°	695.6	710.2	746.2	786.6	801.2
47.5°	655.1	673.1	712.5	755.2	770.9
50°	613.6	633.8	676.5	721.4	739.4
52.5°	576.5	595.6	640.5	688.9	705.7
55°	533.8	555.1	604.6	654.0	673.1
57.5°	490.0	513.6	566.4	620.3	639.4
60°	447.3	473.1	531.5	585.5	606.8
62.5°	405.7	431.5	492.2	548.4	569.7
65°	360.7	391.1	454.0	511.3	531.5
67.5°	318.0	350.6	416.9	473.1	493.3
70°	276.4	307.9	378.7	433.8	454.0
72.5°	231.5	267.5	338.2	395.6	416.9
75°	186.5	229.2	298.9	355.1	375.3
77.5°	145.0	188.8	258.5	304.5	314.6
80°	106.8	151.7	212.4	245.0	257.3
82.5°	68.5	113.5	161.8	185.4	195.5
85°	38.2	75.3	105.6	119.1	123.6
87.5°	15.7	32.6	42.7	48.3	48.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)