

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: P308022

Luminaire Tested: **14FCZ2-44-UNV-L82765-S-CA08-W2A-U-5700K**

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: P308022
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-44-UNV-L82765-S-CA08-W2A-U-5700K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 5700K 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: 4379.0 lumens
Efficiency: N/A
Efficacy: 111.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

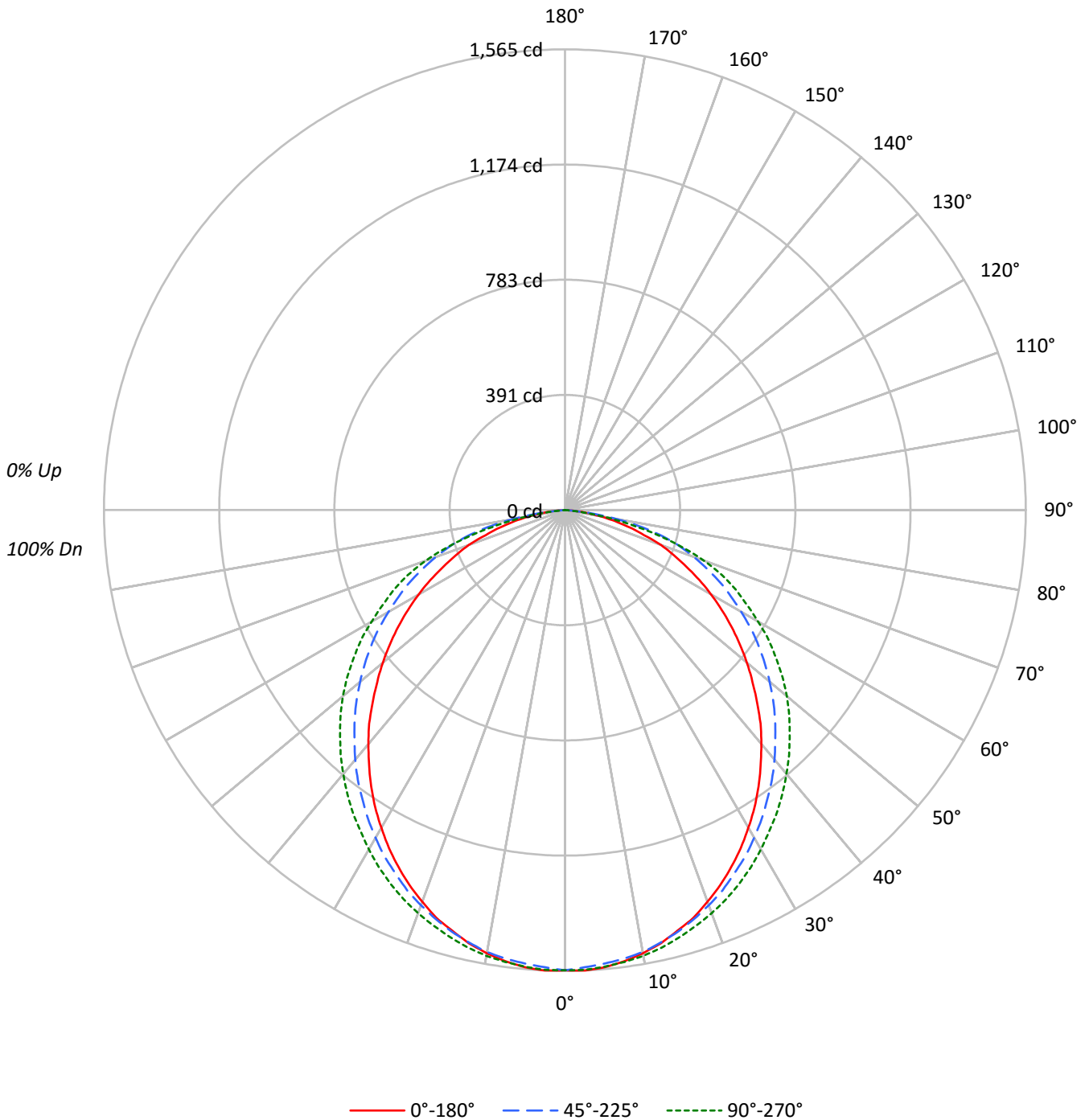
Input Watts (W): 39.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4207	4207	4207
5°	4211	4176	4205
10°	4177	4165	4200
15°	4119	4131	4186
20°	4054	4091	4172
25°	3971	4042	4158
30°	3872	3994	4135
35°	3766	3937	4122
40°	3646	3890	4111
45°	3511	3842	4107
50°	3381	3799	4117
55°	3239	3769	4105
60°	3085	3716	4078
65°	2903	3705	4078
70°	2733	3673	3963
75°	2371	3589	3386
80°	1918	2893	2255
85°	1275	1007	670



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.6	3.4
10°-20°	420.0	9.6
20°-30°	630.1	14.4
30°-40°	751.6	17.2
40°-50°	777.0	17.7
50°-60°	709.4	16.2
60°-70°	558.3	12.7
70°-80°	325.0	7.4
80°-90°	59.9	1.4
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°	1197.7	27.4
0°-40°	1949.4	44.5
0°-60°	3435.8	78.5
0°-90°	4379.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4379.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1563	1563	1563	1563	1563	
5°	1559	1554	1546	1559	1557	148
15°	1479	1481	1483	1502	1502	417
25°	1337	1344	1361	1394	1400	616
35°	1146	1162	1198	1244	1255	717
45°	923	953	1010	1066	1079	713
55°	690	727	803	862	875	617
65°	456	504	582	628	640	453
75°	228	282	345	339	326	242
85°	41	59	33	26	22	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1563.2	1563.2	1563.2	1563.2	1563.2
2.5°	1565.4	1561.1	1554.5	1565.4	1563.2
5°	1558.9	1554.5	1545.9	1558.9	1556.7
7.5°	1545.9	1541.5	1537.2	1550.2	1548.0
10°	1528.5	1526.3	1524.1	1539.3	1537.2
12.5°	1506.8	1506.8	1504.6	1522.0	1522.0
15°	1478.6	1480.7	1482.9	1502.4	1502.4
17.5°	1452.5	1450.3	1456.8	1478.6	1480.7
20°	1415.6	1419.9	1428.6	1454.7	1456.8
22.5°	1378.7	1383.0	1398.2	1424.3	1430.8
25°	1337.4	1343.9	1361.3	1393.9	1400.4
27.5°	1294.0	1302.7	1326.6	1361.3	1367.8
30°	1246.2	1259.3	1285.3	1324.4	1330.9
32.5°	1198.5	1211.5	1244.1	1283.2	1291.8
35°	1146.4	1161.6	1198.5	1244.1	1254.9
37.5°	1092.1	1111.6	1155.1	1200.6	1213.7
40°	1037.8	1059.5	1107.3	1155.1	1170.3
42.5°	983.5	1005.2	1057.4	1111.6	1126.8
45°	922.7	953.1	1009.6	1066.0	1079.1
47.5°	864.1	896.7	959.6	1016.1	1033.5
50°	807.7	840.2	907.5	966.2	983.5
52.5°	749.0	783.8	855.4	916.2	931.4
55°	690.4	727.3	803.3	861.9	875.0
57.5°	631.8	670.9	749.0	805.5	820.7
60°	573.2	614.4	690.4	746.9	757.7
62.5°	514.6	558.0	636.1	686.1	696.9
65°	455.9	503.7	581.9	627.5	640.5
67.5°	399.5	447.3	523.2	566.7	577.5
70°	347.4	390.8	466.8	499.4	503.7
72.5°	282.2	336.5	410.3	427.7	416.9
75°	228.0	282.2	345.2	338.7	325.7
77.5°	173.7	228.0	269.2	247.5	230.1
80°	123.8	178.0	186.7	154.2	145.5
82.5°	80.3	123.8	104.2	80.3	65.1
85°	41.3	58.6	32.6	26.1	21.7
87.5°	13.0	8.7	4.3	4.3	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)