

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: P312422

Luminaire Tested: **14FCZ2-44-UNV-L83050-S-CA125-W2A-U-4000K**

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: P312422
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-L83050-S-CA125-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 4000K 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: 4394.0 lumens
Efficiency: N/A
Efficacy: 112.1 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

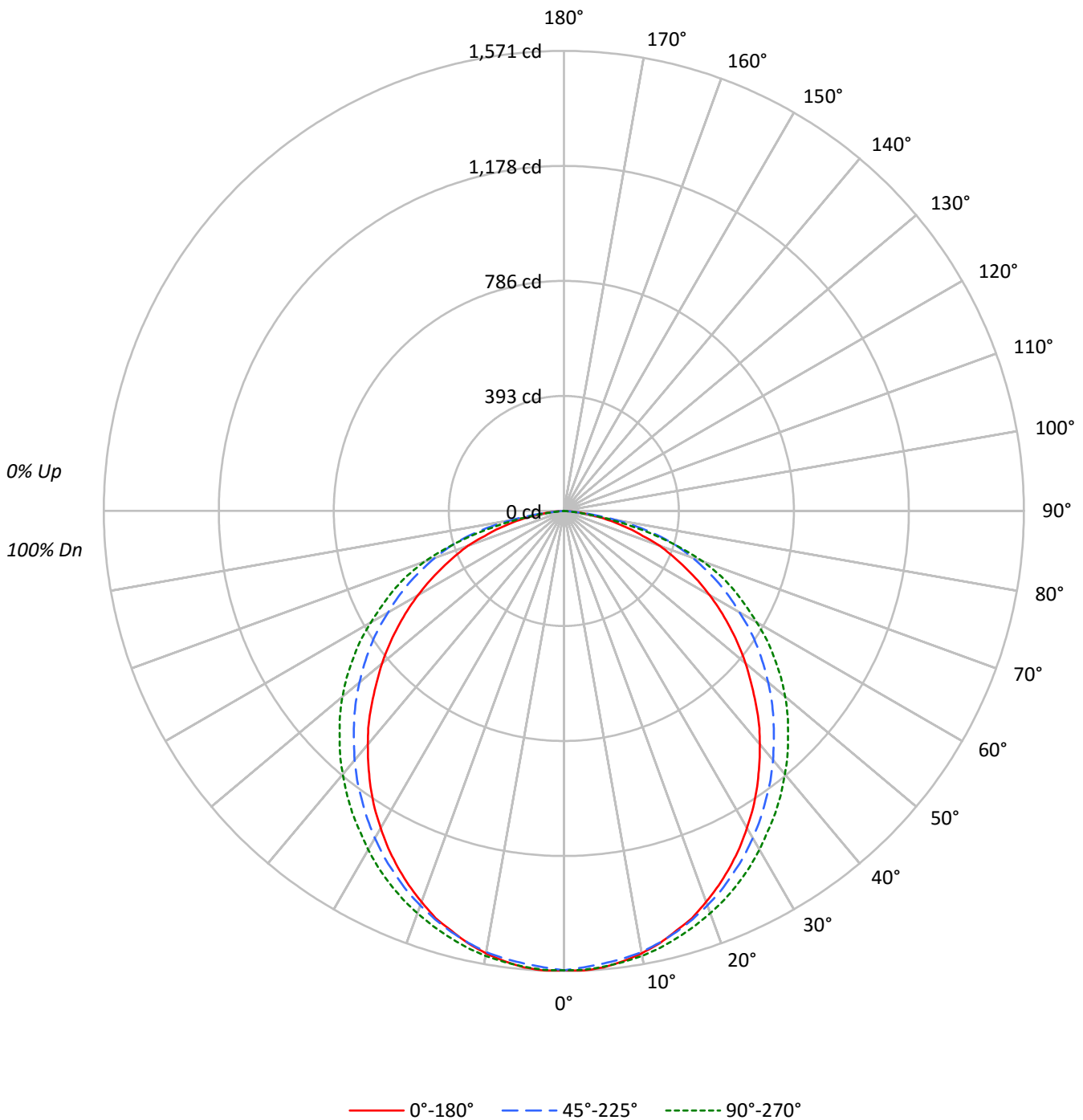
Input Watts (W): 39.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	4221	4221	4221
5°	4225	4190	4219
10°	4191	4179	4215
15°	4133	4145	4200
20°	4068	4105	4186
25°	3985	4056	4172
30°	3886	4007	4150
35°	3779	3951	4137
40°	3658	3903	4125
45°	3524	3855	4121
50°	3393	3813	4132
55°	3250	3782	4119
60°	3095	3729	4092
65°	2913	3718	4092
70°	2743	3685	3976
75°	2379	3602	3398
80°	1925	2904	2263
85°	1278	1010	673



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.1	3.4
10°-20°	421.5	9.6
20°-30°	632.2	14.4
30°-40°	754.2	17.2
40°-50°	779.7	17.7
50°-60°	711.9	16.2
60°-70°	560.2	12.7
70°-80°	326.1	7.4
80°-90°	60.1	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°	1201.9	27.4
0°-40°	1956.1	44.5
0°-60°	3447.6	78.5
0°-90°	4394.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4394.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1569	1569	1569	1569	1569	
5°	1564	1560	1551	1564	1562	148
15°	1484	1486	1488	1508	1508	419
25°	1342	1348	1366	1399	1405	618
35°	1150	1166	1203	1248	1259	719
45°	926	956	1013	1070	1083	715
55°	693	730	806	865	878	620
65°	458	505	584	630	643	454
75°	229	283	346	340	327	243
85°	41	59	33	26	22	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1568.6	1568.6	1568.6	1568.6	1568.6
2.5°	1570.8	1566.4	1559.9	1570.8	1568.6
5°	1564.2	1559.9	1551.2	1564.2	1562.0
7.5°	1551.2	1546.8	1542.4	1555.5	1553.3
10°	1533.7	1531.5	1529.4	1544.6	1542.4
12.5°	1511.9	1511.9	1509.8	1527.2	1527.2
15°	1483.6	1485.8	1488.0	1507.6	1507.6
17.5°	1457.5	1455.3	1461.8	1483.6	1485.8
20°	1420.4	1424.8	1433.5	1459.7	1461.8
22.5°	1383.4	1387.8	1403.0	1429.2	1435.7
25°	1342.0	1348.5	1366.0	1398.7	1405.2
27.5°	1298.4	1307.2	1331.1	1366.0	1372.5
30°	1250.5	1263.6	1289.7	1328.9	1335.5
32.5°	1202.6	1215.7	1248.3	1287.5	1296.3
35°	1150.3	1165.5	1202.6	1248.3	1259.2
37.5°	1095.8	1115.4	1159.0	1204.8	1217.8
40°	1041.4	1063.2	1111.1	1159.0	1174.3
42.5°	986.9	1008.7	1061.0	1115.4	1130.7
45°	925.9	956.4	1013.0	1069.7	1082.8
47.5°	867.1	899.8	962.9	1019.6	1037.0
50°	810.4	843.1	910.7	969.5	986.9
52.5°	751.6	786.5	858.4	919.4	934.6
55°	692.8	729.8	806.1	864.9	878.0
57.5°	634.0	673.2	751.6	808.3	823.5
60°	575.1	616.5	692.8	749.4	760.3
62.5°	516.3	559.9	638.3	688.4	699.3
65°	457.5	505.4	583.9	629.6	642.7
67.5°	400.9	448.8	525.0	568.6	579.5
70°	348.6	392.1	468.4	501.1	505.4
72.5°	283.2	337.7	411.8	429.2	418.3
75°	228.8	283.2	346.4	339.9	326.8
77.5°	174.3	228.8	270.1	248.4	230.9
80°	124.2	178.6	187.4	154.7	146.0
82.5°	80.6	124.2	104.6	80.6	65.4
85°	41.4	58.8	32.7	26.1	21.8
87.5°	13.1	8.7	4.4	4.4	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)