

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: P312271

Luminaire Tested: **14FCZ2-44-UNV-L83050-CA125-W2A-U-3500K**

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: P312271
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
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-CA125-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 3500K 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

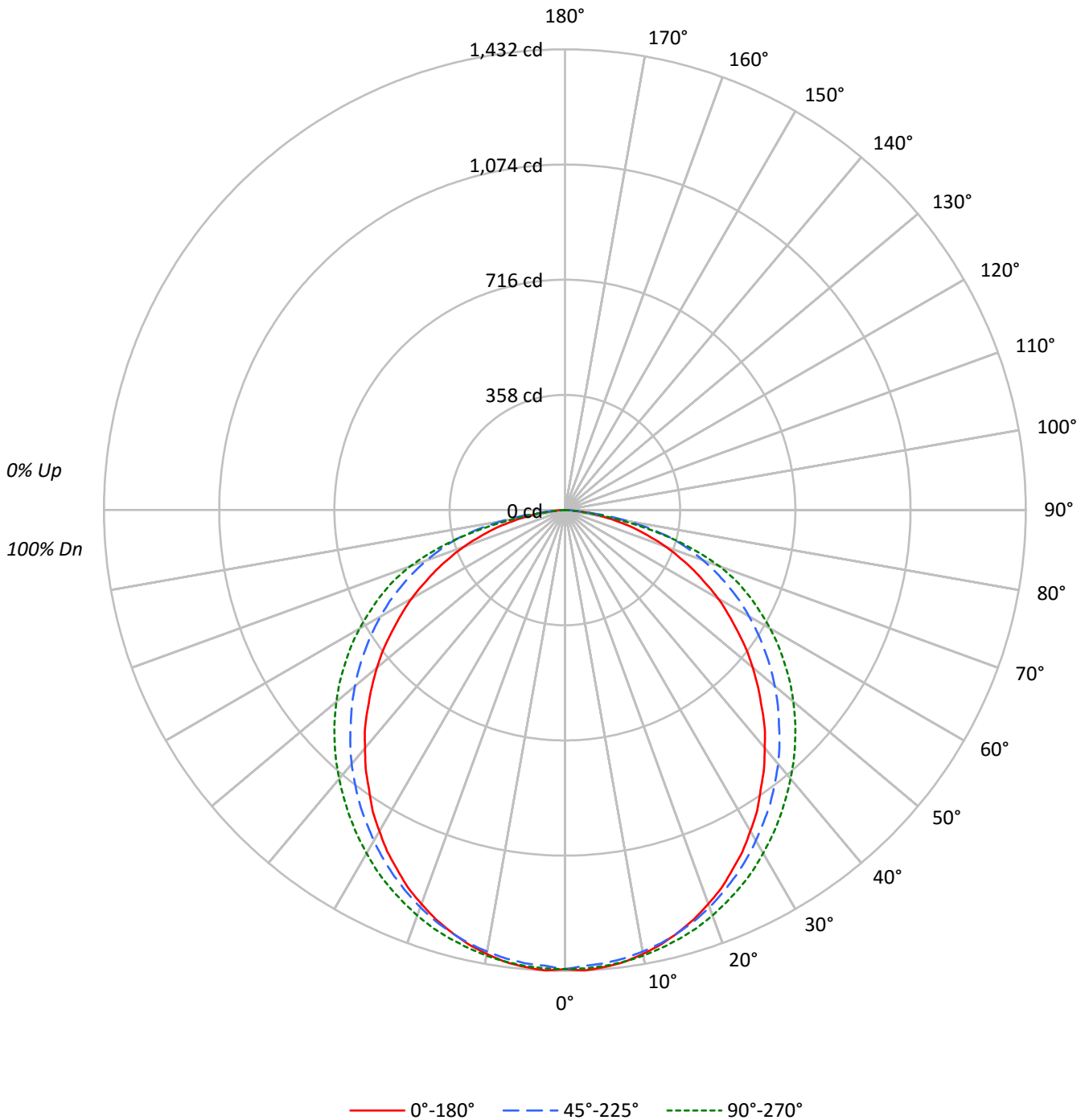
Lumens per Lamp: N/A
Luminaire Lumens: 4141.0 lumens
Efficiency: N/A
Efficacy: 108.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 38.3
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	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3839	3839	3839
5°	3851	3819	3841
10°	3827	3807	3843
15°	3787	3789	3841
20°	3731	3763	3839
25°	3660	3726	3836
30°	3581	3687	3828
35°	3485	3655	3825
40°	3393	3620	3831
45°	3289	3581	3851
50°	3193	3564	3877
55°	3072	3552	3912
60°	2962	3558	3965
65°	2811	3569	4027
70°	2637	3596	4024
75°	2390	3629	3639
80°	1960	3133	2590
85°	1454	1482	599



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.0	3.3
10°-20°	385.6	9.3
20°-30°	580.9	14.0
30°-40°	697.1	16.8
40°-50°	726.6	17.5
50°-60°	672.6	16.2
60°-70°	543.5	13.1
70°-80°	331.4	8.0
80°-90°	68.4	1.7
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°	1101.5	26.6
0°-40°	1798.6	43.4
0°-60°	3197.8	77.2
0°-90°	4141.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4141.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1427	1427	1427	1427	1427	
5°	1426	1422	1414	1424	1422	135
15°	1359	1360	1360	1379	1379	383
25°	1233	1240	1255	1286	1292	568
35°	1061	1078	1113	1153	1164	665
45°	864	890	941	994	1012	668
55°	655	689	757	816	834	587
65°	441	485	560	617	632	436
75°	230	281	349	355	350	241
85°	47	70	48	27	19	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1426.6	1426.6	1426.6	1426.6	1426.6
2.5°	1432.1	1427.5	1417.4	1427.5	1425.7
5°	1425.7	1422.0	1413.7	1423.8	1422.0
7.5°	1416.4	1412.7	1405.4	1417.4	1415.5
10°	1400.7	1398.9	1393.3	1407.2	1406.3
12.5°	1382.3	1381.3	1378.6	1394.3	1393.3
15°	1359.2	1360.1	1360.1	1378.6	1378.6
17.5°	1333.3	1335.2	1338.9	1359.2	1362.0
20°	1302.9	1306.6	1313.9	1337.0	1340.7
22.5°	1271.5	1274.2	1285.3	1313.0	1316.7
25°	1232.7	1240.1	1254.8	1286.2	1291.8
27.5°	1195.7	1202.2	1222.5	1254.8	1264.1
30°	1152.4	1162.5	1186.5	1221.6	1231.8
32.5°	1110.8	1121.9	1149.6	1190.2	1199.4
35°	1060.9	1077.6	1112.6	1153.3	1164.4
37.5°	1015.7	1031.4	1071.1	1115.4	1128.3
40°	965.8	985.2	1030.5	1077.6	1090.5
42.5°	919.7	938.1	987.1	1035.1	1052.6
45°	864.3	890.1	940.9	993.5	1012.0
47.5°	813.5	839.3	897.5	953.8	970.4
50°	762.7	790.4	851.3	909.5	926.1
52.5°	710.1	739.6	805.2	863.3	882.7
55°	654.7	688.8	757.2	816.2	833.8
57.5°	602.0	637.1	710.1	770.1	787.6
60°	550.3	586.3	661.1	718.4	736.8
62.5°	493.1	535.5	613.1	669.4	683.3
65°	441.4	484.8	560.5	616.8	632.5
67.5°	386.9	434.0	509.7	561.4	576.2
70°	335.2	384.1	457.1	505.1	511.5
72.5°	279.8	329.6	403.5	434.0	434.0
75°	229.9	280.7	349.0	354.6	350.0
77.5°	175.4	231.8	276.1	265.0	253.9
80°	126.5	181.9	202.2	181.9	167.1
82.5°	84.9	132.0	121.9	97.0	85.9
85°	47.1	70.2	48.0	26.8	19.4
87.5°	17.5	15.7	4.6	4.6	4.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)