

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: P312266

Luminaire Tested: **14FCZ2-44-UNV-L83050-CA08-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: P312266
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-CA08-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.08" 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: 4156.0 lumens
Efficiency: N/A
Efficacy: 108.5 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

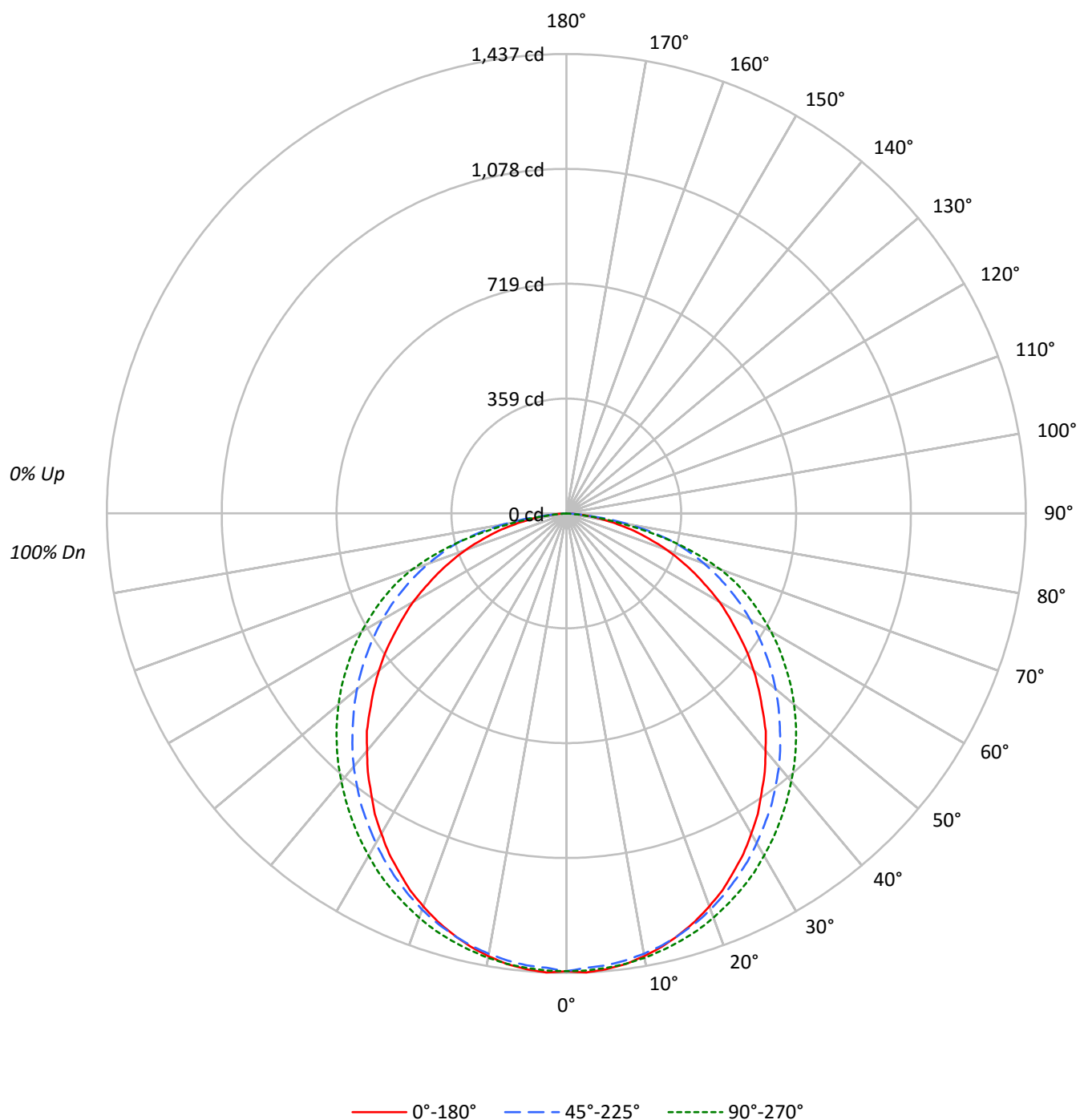
Input Watts (W): 38.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91		93	90	88		83
2	98	90	83	77	96	88	82	76	84	79	74		81	77	73		69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		58
4	82	70	61	54	79	68	60	53	66	58	53		63	57	52		49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		32
8	60	46	37	32	58	45	37	31	44	37	31		43	36	31		29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		26
10	52	39	31	26	51	39	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3853	3853	3853
5°	3865	3833	3855
10°	3841	3821	3857
15°	3800	3803	3855
20°	3745	3776	3853
25°	3673	3739	3850
30°	3594	3700	3841
35°	3498	3668	3839
40°	3405	3633	3844
45°	3301	3594	3865
50°	3205	3577	3891
55°	3082	3565	3926
60°	2972	3571	3980
65°	2821	3582	4042
70°	2647	3609	4039
75°	2399	3642	3651
80°	1968	3144	2599
85°	1460	1488	602



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.5	3.3
10°-20°	387.0	9.3
20°-30°	583.0	14.0
30°-40°	699.6	16.8
40°-50°	729.2	17.5
50°-60°	675.1	16.2
60°-70°	545.4	13.1
70°-80°	332.6	8.0
80°-90°	68.7	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°	1105.5	26.6
0°-40°	1805.1	43.4
0°-60°	3209.4	77.2
0°-90°	4156.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4156.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1432	1432	1432	1432	1432	
5°	1431	1427	1419	1429	1427	136
15°	1364	1365	1365	1384	1384	385
25°	1237	1245	1259	1291	1296	570
35°	1065	1082	1117	1158	1169	667
45°	867	893	944	997	1016	670
55°	657	691	760	819	837	589
65°	443	486	562	619	635	438
75°	231	282	350	356	351	242
85°	47	70	48	27	20	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1431.8	1431.8	1431.8	1431.8	1431.8
2.5°	1437.3	1432.7	1422.5	1432.7	1430.8
5°	1430.8	1427.1	1418.8	1429.0	1427.1
7.5°	1421.6	1417.9	1410.4	1422.5	1420.6
10°	1405.8	1404.0	1398.4	1412.3	1411.4
12.5°	1387.3	1386.3	1383.6	1399.3	1398.4
15°	1364.1	1365.0	1365.0	1383.6	1383.6
17.5°	1338.2	1340.0	1343.7	1364.1	1366.9
20°	1307.6	1311.3	1318.7	1341.9	1345.6
22.5°	1276.1	1278.8	1290.0	1317.8	1321.5
25°	1237.1	1244.6	1259.4	1290.9	1296.5
27.5°	1200.1	1206.6	1227.0	1259.4	1268.7
30°	1156.5	1166.7	1190.8	1226.0	1236.2
32.5°	1114.8	1125.9	1153.7	1194.5	1203.8
35°	1064.8	1081.5	1116.7	1157.5	1168.6
37.5°	1019.4	1035.1	1075.0	1119.5	1132.4
40°	969.3	988.8	1034.2	1081.5	1094.4
42.5°	923.0	941.5	990.6	1038.8	1056.4
45°	867.4	893.3	944.3	997.1	1015.7
47.5°	816.4	842.4	900.8	957.3	974.0
50°	765.5	793.3	854.4	912.8	929.5
52.5°	712.6	742.3	808.1	866.5	885.9
55°	657.0	691.3	759.9	819.2	836.8
57.5°	604.2	639.4	712.6	772.9	790.5
60°	552.3	588.5	663.5	721.0	739.5
62.5°	494.9	537.5	615.3	671.9	685.8
65°	443.0	486.5	562.5	619.0	634.8
67.5°	388.3	435.6	511.5	563.4	578.3
70°	336.4	385.5	458.7	506.9	513.4
72.5°	280.8	330.8	405.0	435.6	435.6
75°	230.7	281.7	350.3	355.9	351.2
77.5°	176.1	232.6	277.1	266.0	254.8
80°	127.0	182.6	202.9	182.6	167.7
82.5°	85.3	132.5	122.3	97.3	86.2
85°	47.3	70.4	48.2	26.9	19.5
87.5°	17.6	15.8	4.6	4.6	4.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)