

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: P312244

Luminaire Tested: **14FCZ2-39-UNV-L83050-CA08-W2A-U-5000K**

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: P312244
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: 14FCZ2-39-UNV-L83050-CA08-W2A-U-5000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 5000K 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: 3940.0 lumens
Efficiency: N/A
Efficacy: 112.9 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

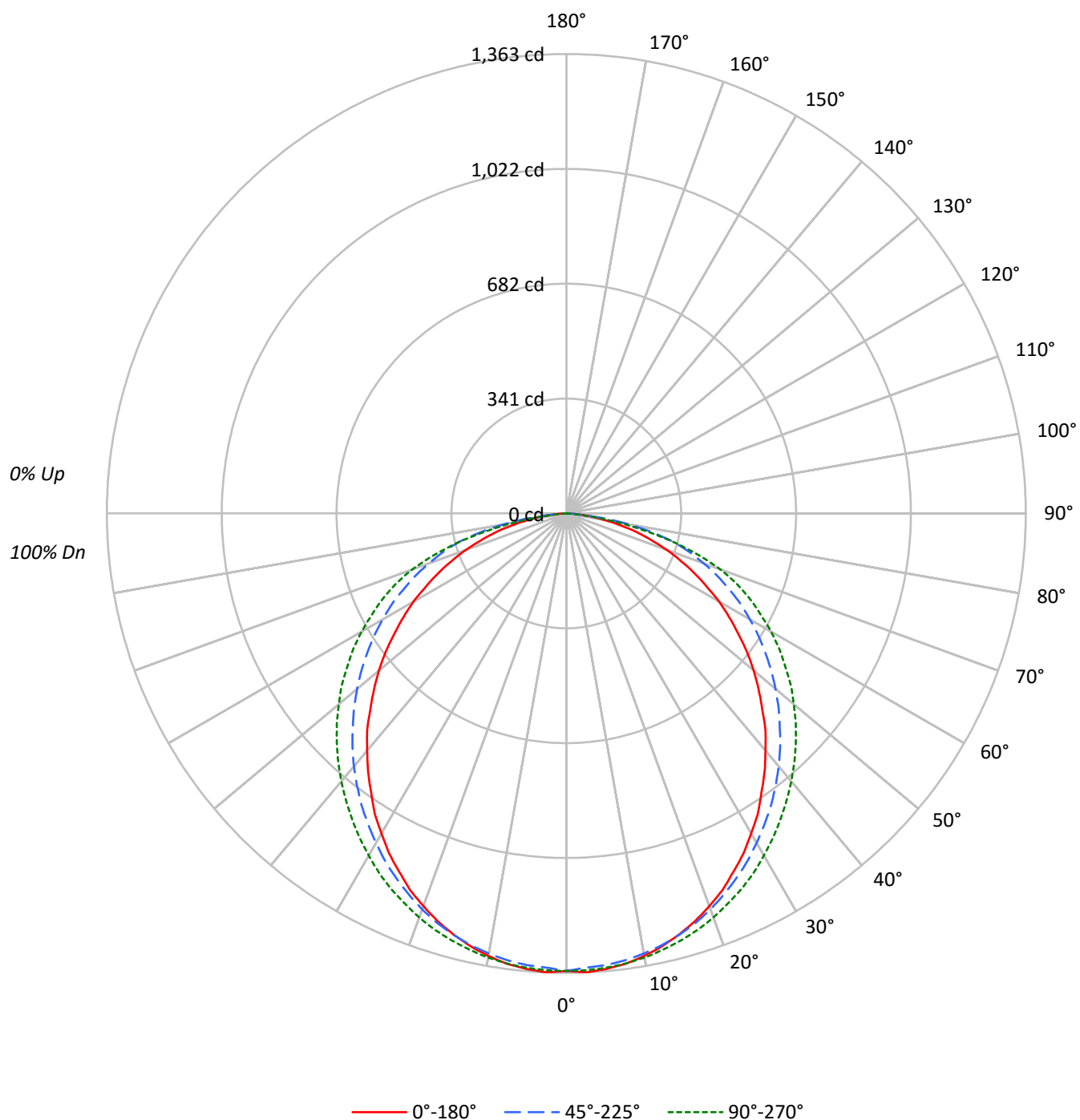
Input Watts (W): 34.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3652	3652	3652
5°	3664	3633	3655
10°	3642	3622	3656
15°	3603	3605	3654
20°	3550	3580	3653
25°	3482	3545	3649
30°	3407	3508	3642
35°	3316	3478	3639
40°	3228	3444	3645
45°	3129	3407	3664
50°	3038	3391	3689
55°	2922	3380	3722
60°	2818	3385	3773
65°	2674	3396	3832
70°	2509	3422	3829
75°	2275	3453	3462
80°	1866	2982	2464
85°	1383	1411	568



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.4	3.3
10°-20°	366.9	9.3
20°-30°	552.7	14.0
30°-40°	663.2	16.8
40°-50°	691.3	17.5
50°-60°	640.0	16.2
60°-70°	517.1	13.1
70°-80°	315.3	8.0
80°-90°	65.1	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°	1048.0	26.6
0°-40°	1711.3	43.4
0°-60°	3042.6	77.2
0°-90°	3940.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3940.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1357	1357	1357	1357	1357	
5°	1356	1353	1345	1355	1353	129
15°	1293	1294	1294	1312	1312	365
25°	1173	1180	1194	1224	1229	541
35°	1009	1025	1059	1097	1108	632
45°	822	847	895	945	963	636
55°	623	655	720	777	793	558
65°	420	461	533	587	602	415
75°	219	267	332	337	333	230
85°	45	67	46	26	18	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1357.3	1357.3	1357.3	1357.3	1357.3
2.5°	1362.6	1358.2	1348.6	1358.2	1356.5
5°	1356.5	1353.0	1345.0	1354.7	1353.0
7.5°	1347.7	1344.2	1337.1	1348.6	1346.8
10°	1332.7	1331.0	1325.7	1338.9	1338.0
12.5°	1315.2	1314.3	1311.7	1326.6	1325.7
15°	1293.2	1294.1	1294.1	1311.7	1311.7
17.5°	1268.6	1270.4	1273.9	1293.2	1295.8
20°	1239.6	1243.1	1250.2	1272.1	1275.6
22.5°	1209.7	1212.4	1222.9	1249.3	1252.8
25°	1172.8	1179.9	1193.9	1223.8	1229.1
27.5°	1137.7	1143.9	1163.2	1193.9	1202.7
30°	1096.4	1106.1	1128.9	1162.3	1172.0
32.5°	1056.9	1067.4	1093.8	1132.4	1141.2
35°	1009.4	1025.3	1058.6	1097.3	1107.8
37.5°	966.4	981.3	1019.1	1061.3	1073.6
40°	919.0	937.4	980.4	1025.3	1037.6
42.5°	875.0	892.6	939.2	984.8	1001.5
45°	822.3	846.9	895.2	945.3	962.9
47.5°	774.0	798.6	853.9	907.5	923.3
50°	725.7	752.0	810.0	865.4	881.2
52.5°	675.6	703.7	766.1	821.4	839.9
55°	622.9	655.4	720.4	776.6	793.3
57.5°	572.8	606.2	675.6	732.7	749.4
60°	523.6	557.9	629.0	683.5	701.1
62.5°	469.1	509.6	583.3	636.9	650.1
65°	419.9	461.2	533.3	586.9	601.8
67.5°	368.1	412.9	485.0	534.2	548.2
70°	318.9	365.5	434.9	480.6	486.7
72.5°	266.2	313.6	383.9	412.9	412.9
75°	218.8	267.1	332.1	337.4	333.0
77.5°	166.9	220.5	262.7	252.1	241.6
80°	120.4	173.1	192.4	173.1	159.0
82.5°	80.8	125.6	116.0	92.2	81.7
85°	44.8	66.8	45.7	25.5	18.4
87.5°	16.7	14.9	4.4	4.4	4.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)