

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: P312267

Luminaire Tested: **14FCZ2-44-UNV-L83050-CA08-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: P312267
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-4000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.08" 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: 4364.0 lumens
Efficiency: N/A
Efficacy: 111.3 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

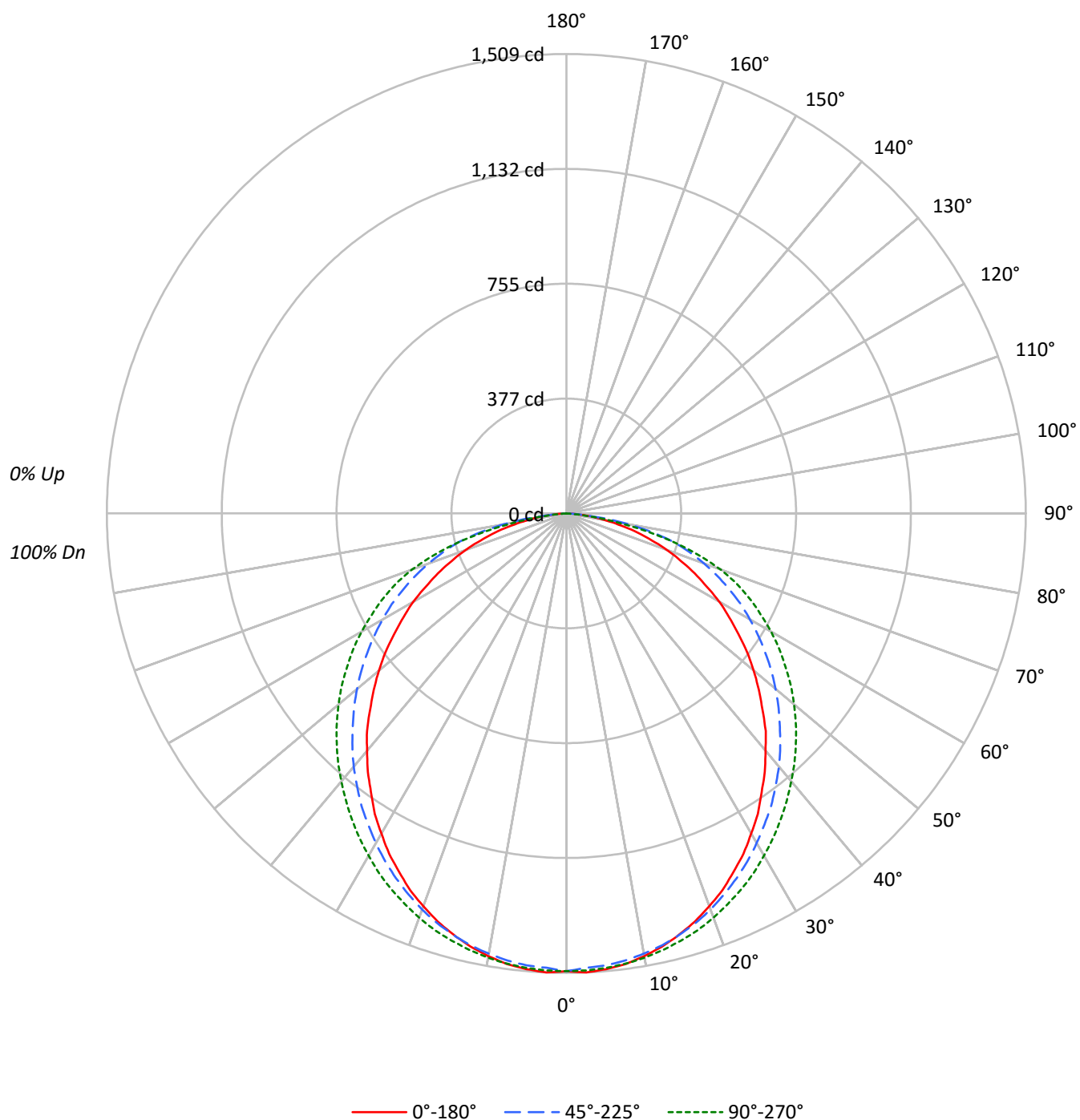
Input Watts (W): 39.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4046	4046	4046
5°	4058	4024	4048
10°	4034	4012	4050
15°	3991	3993	4047
20°	3932	3965	4046
25°	3857	3926	4042
30°	3773	3885	4034
35°	3673	3852	4031
40°	3575	3815	4037
45°	3466	3774	4059
50°	3365	3756	4086
55°	3237	3743	4122
60°	3122	3750	4179
65°	2961	3761	4245
70°	2779	3790	4242
75°	2519	3824	3834
80°	2066	3302	2729
85°	1531	1562	630



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.3	3.3
10°-20°	406.4	9.3
20°-30°	612.2	14.0
30°-40°	734.6	16.8
40°-50°	765.7	17.5
50°-60°	708.8	16.2
60°-70°	572.7	13.1
70°-80°	349.2	8.0
80°-90°	72.1	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°	1160.8	26.6
0°-40°	1895.5	43.4
0°-60°	3370.0	77.2
0°-90°	4364.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4364.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1503	1503	1503	1503	1503	
5°	1502	1498	1490	1500	1498	143
15°	1432	1433	1433	1453	1453	404
25°	1299	1307	1322	1356	1361	599
35°	1118	1136	1173	1215	1227	700
45°	911	938	992	1047	1066	704
55°	690	726	798	860	879	618
65°	465	511	591	650	667	460
75°	242	296	368	374	369	254
85°	50	74	51	28	20	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1503.4	1503.4	1503.4	1503.4	1503.4
2.5°	1509.3	1504.4	1493.7	1504.4	1502.4
5°	1502.4	1498.5	1489.8	1500.5	1498.5
7.5°	1492.7	1488.8	1481.0	1493.7	1491.7
10°	1476.2	1474.2	1468.4	1483.0	1482.0
12.5°	1456.7	1455.7	1452.8	1469.4	1468.4
15°	1432.4	1433.4	1433.4	1452.8	1452.8
17.5°	1405.1	1407.1	1411.0	1432.4	1435.3
20°	1373.0	1376.9	1384.7	1409.0	1412.9
22.5°	1339.9	1342.9	1354.5	1383.7	1387.6
25°	1299.1	1306.8	1322.4	1355.5	1361.3
27.5°	1260.1	1267.0	1288.4	1322.4	1332.1
30°	1214.4	1225.1	1250.4	1287.4	1298.1
32.5°	1170.6	1182.3	1211.5	1254.3	1264.0
35°	1118.1	1135.6	1172.6	1215.4	1227.1
37.5°	1070.4	1086.9	1128.8	1175.5	1189.1
40°	1017.8	1038.3	1086.0	1135.6	1149.2
42.5°	969.2	988.7	1040.2	1090.8	1109.3
45°	910.8	938.1	991.6	1047.0	1066.5
47.5°	857.3	884.5	945.8	1005.2	1022.7
50°	803.8	833.0	897.2	958.5	976.0
52.5°	748.3	779.4	848.5	909.8	930.3
55°	689.9	725.9	797.9	860.2	878.7
57.5°	634.4	671.4	748.3	811.6	830.0
60°	580.0	617.9	696.7	757.1	776.5
62.5°	519.6	564.4	646.1	705.5	720.1
65°	465.1	510.9	590.7	650.0	666.6
67.5°	407.7	457.3	537.1	591.6	607.2
70°	353.2	404.8	481.7	532.3	539.1
72.5°	294.8	347.4	425.2	457.3	457.3
75°	242.3	295.8	367.8	373.7	368.8
77.5°	184.9	244.2	291.0	279.3	267.6
80°	133.3	191.7	213.1	191.7	176.1
82.5°	89.5	139.2	128.4	102.2	90.5
85°	49.6	74.0	50.6	28.2	20.4
87.5°	18.5	16.5	4.9	4.9	4.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)