

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: P307779

Luminaire Tested: **14FCZ2-44-UNV-L82765-CP187-W2A-U-5700K**

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: P307779
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-L82765-CP187-W2A-U-5700K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.187" POLYCARB SHEET
Light Source: (168) 5700K 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: 4054.0 lumens
Efficiency: N/A
Efficacy: 102.9 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

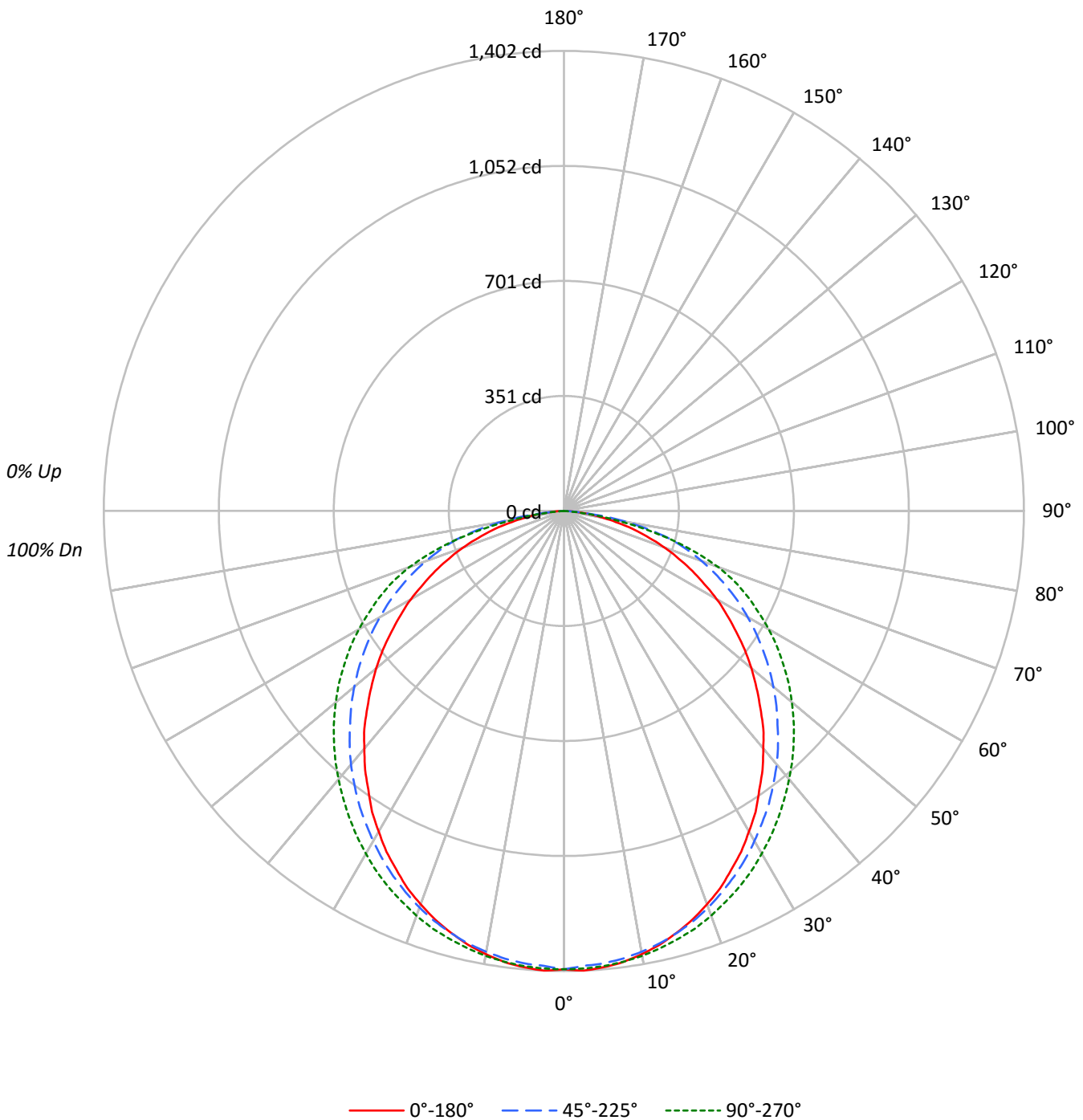
Input Watts (W): 39.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3758	3758	3758
5°	3770	3739	3760
10°	3747	3727	3762
15°	3707	3709	3760
20°	3653	3684	3759
25°	3583	3648	3755
30°	3505	3609	3747
35°	3412	3578	3745
40°	3321	3544	3750
45°	3220	3505	3770
50°	3126	3489	3796
55°	3007	3477	3830
60°	2900	3483	3883
65°	2751	3494	3943
70°	2581	3521	3940
75°	2340	3553	3562
80°	1918	3068	2535
85°	1423	1451	587



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.2	3.3
10°-20°	377.5	9.3
20°-30°	568.7	14.0
30°-40°	682.4	16.8
40°-50°	711.3	17.5
50°-60°	658.5	16.2
60°-70°	532.0	13.1
70°-80°	324.4	8.0
80°-90°	67.0	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°	1078.4	26.6
0°-40°	1760.8	43.4
0°-60°	3130.6	77.2
0°-90°	4054.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4054.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1397	1397	1397	1397	1397	
5°	1396	1392	1384	1394	1392	132
15°	1331	1332	1332	1350	1350	375
25°	1207	1214	1228	1259	1265	556
35°	1039	1055	1089	1129	1140	651
45°	846	871	921	973	991	654
55°	641	674	741	799	816	574
65°	432	475	549	604	619	427
75°	225	275	342	347	343	236
85°	46	69	47	26	19	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1396.6	1396.6	1396.6	1396.6	1396.6
2.5°	1402.0	1397.5	1387.6	1397.5	1395.7
5°	1395.7	1392.1	1384.0	1393.9	1392.1
7.5°	1386.7	1383.1	1375.8	1387.6	1385.8
10°	1371.3	1369.5	1364.1	1377.6	1376.7
12.5°	1353.2	1352.3	1349.6	1365.0	1364.1
15°	1330.6	1331.5	1331.5	1349.6	1349.6
17.5°	1305.3	1307.1	1310.7	1330.6	1333.3
20°	1275.5	1279.1	1286.3	1308.9	1312.5
22.5°	1244.8	1247.5	1258.3	1285.4	1289.0
25°	1206.8	1214.0	1228.5	1259.2	1264.6
27.5°	1170.6	1177.0	1196.8	1228.5	1237.5
30°	1128.1	1138.1	1161.6	1195.9	1205.9
32.5°	1087.5	1098.3	1125.4	1165.2	1174.2
35°	1038.6	1054.9	1089.3	1129.0	1139.9
37.5°	994.4	1009.7	1048.6	1092.0	1104.6
40°	945.5	964.5	1008.8	1054.9	1067.6
42.5°	900.3	918.4	966.3	1013.3	1030.5
45°	846.1	871.4	921.1	972.7	990.7
47.5°	796.4	821.7	878.6	933.8	950.1
50°	746.7	773.8	833.4	890.4	906.7
52.5°	695.1	724.1	788.3	845.2	864.2
55°	640.9	674.4	741.2	799.1	816.3
57.5°	589.4	623.7	695.1	753.9	771.1
60°	538.8	574.0	647.2	703.3	721.4
62.5°	482.7	524.3	600.2	655.4	668.9
65°	432.1	474.6	548.7	603.8	619.2
67.5°	378.8	424.9	499.0	549.6	564.1
70°	328.1	376.0	447.5	494.5	500.8
72.5°	273.9	322.7	395.0	424.9	424.9
75°	225.1	274.8	341.7	347.1	342.6
77.5°	171.8	226.9	270.3	259.4	248.6
80°	123.8	178.1	198.0	178.1	163.6
82.5°	83.2	129.3	119.3	94.9	84.1
85°	46.1	68.7	47.0	26.2	19.0
87.5°	17.2	15.4	4.5	4.5	4.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)