

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: P307774

Luminaire Tested: **14FCZ2-44-UNV-L82765-CP187-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: P307774  
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-3500K  
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.187" POLYCARB 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: 3798.0 lumens  
Efficiency: N/A  
Efficacy: 98.6 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

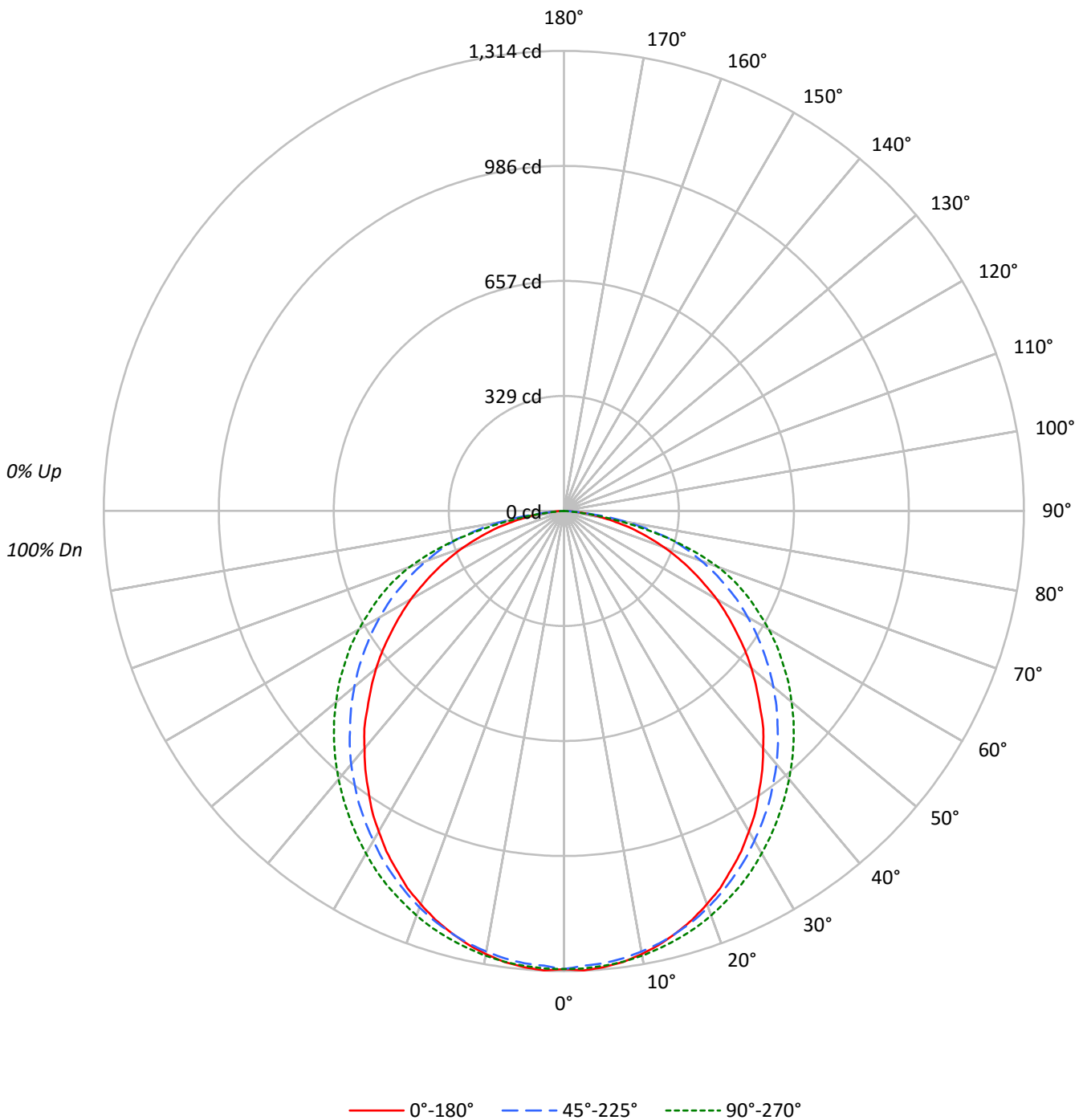
Input Watts (W): 38.5  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3521	3521	3521
5°	3532	3502	3523
10°	3510	3492	3524
15°	3473	3475	3522
20°	3422	3451	3521
25°	3357	3417	3518
30°	3284	3381	3510
35°	3197	3352	3508
40°	3112	3320	3514
45°	3017	3284	3532
50°	2928	3269	3556
55°	2817	3258	3588
60°	2716	3264	3637
65°	2578	3273	3694
70°	2419	3298	3692
75°	2193	3328	3337
80°	1798	2875	2376
85°	1334	1359	550



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	123.8	3.3
10°-20°	353.7	9.3
20°-30°	532.8	14.0
30°-40°	639.3	16.8
40°-50°	666.4	17.5
50°-60°	616.9	16.2
60°-70°	498.4	13.1
70°-80°	303.9	8.0
80°-90°	62.7	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°	1010.3	26.6
0°-40°	1649.6	43.4
0°-60°	2932.9	77.2
0°-90°	3798.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3798.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1308	1308	1308	1308	1308	
5°	1308	1304	1297	1306	1304	124
15°	1247	1247	1247	1264	1264	351
25°	1131	1137	1151	1180	1185	521
35°	973	988	1020	1058	1068	610
45°	793	816	863	911	928	613
55°	600	632	694	749	765	538
65°	405	445	514	566	580	400
75°	211	258	320	325	321	221
85°	43	64	44	25	18	53
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1308.4	1308.4	1308.4	1308.4	1308.4
2.5°	1313.5	1309.3	1300.0	1309.3	1307.6
5°	1307.6	1304.2	1296.6	1305.9	1304.2
7.5°	1299.1	1295.7	1288.9	1300.0	1298.3
10°	1284.7	1283.0	1277.9	1290.6	1289.8
12.5°	1267.8	1266.9	1264.4	1278.8	1277.9
15°	1246.6	1247.4	1247.4	1264.4	1264.4
17.5°	1222.9	1224.6	1228.0	1246.6	1249.1
20°	1194.9	1198.3	1205.1	1226.3	1229.7
22.5°	1166.1	1168.7	1178.9	1204.3	1207.6
25°	1130.6	1137.4	1150.9	1179.7	1184.8
27.5°	1096.7	1102.6	1121.3	1150.9	1159.4
30°	1056.9	1066.2	1088.2	1120.4	1129.7
32.5°	1018.8	1029.0	1054.4	1091.6	1100.1
35°	973.1	988.3	1020.5	1057.7	1067.9
37.5°	931.6	946.0	982.4	1023.0	1034.9
40°	885.8	903.6	945.1	988.3	1000.2
42.5°	843.5	860.4	905.3	949.3	965.4
45°	792.7	816.4	863.0	911.2	928.2
47.5°	746.1	769.8	823.2	874.8	890.1
50°	699.5	724.9	780.8	834.2	849.4
52.5°	651.2	678.3	738.5	791.8	809.6
55°	600.4	631.8	694.4	748.6	764.7
57.5°	552.2	584.3	651.2	706.3	722.4
60°	504.7	537.8	606.4	658.9	675.8
62.5°	452.2	491.2	562.3	614.0	626.7
65°	404.8	444.6	514.1	565.7	580.1
67.5°	354.8	398.0	467.5	514.9	528.5
70°	307.4	352.3	419.2	463.2	469.2
72.5°	256.6	302.3	370.1	398.0	398.0
75°	210.9	257.5	320.1	325.2	321.0
77.5°	160.9	212.6	253.2	243.1	232.9
80°	116.0	166.8	185.5	166.8	153.3
82.5°	77.9	121.1	111.8	88.9	78.8
85°	43.2	64.4	44.0	24.6	17.8
87.5°	16.1	14.4	4.2	4.2	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)