

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: P312286

Luminaire Tested: **14FCZ2-44-UNV-L83050-CP250-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: P312286  
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-CP250-W2A-U-3500K  
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.250" 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

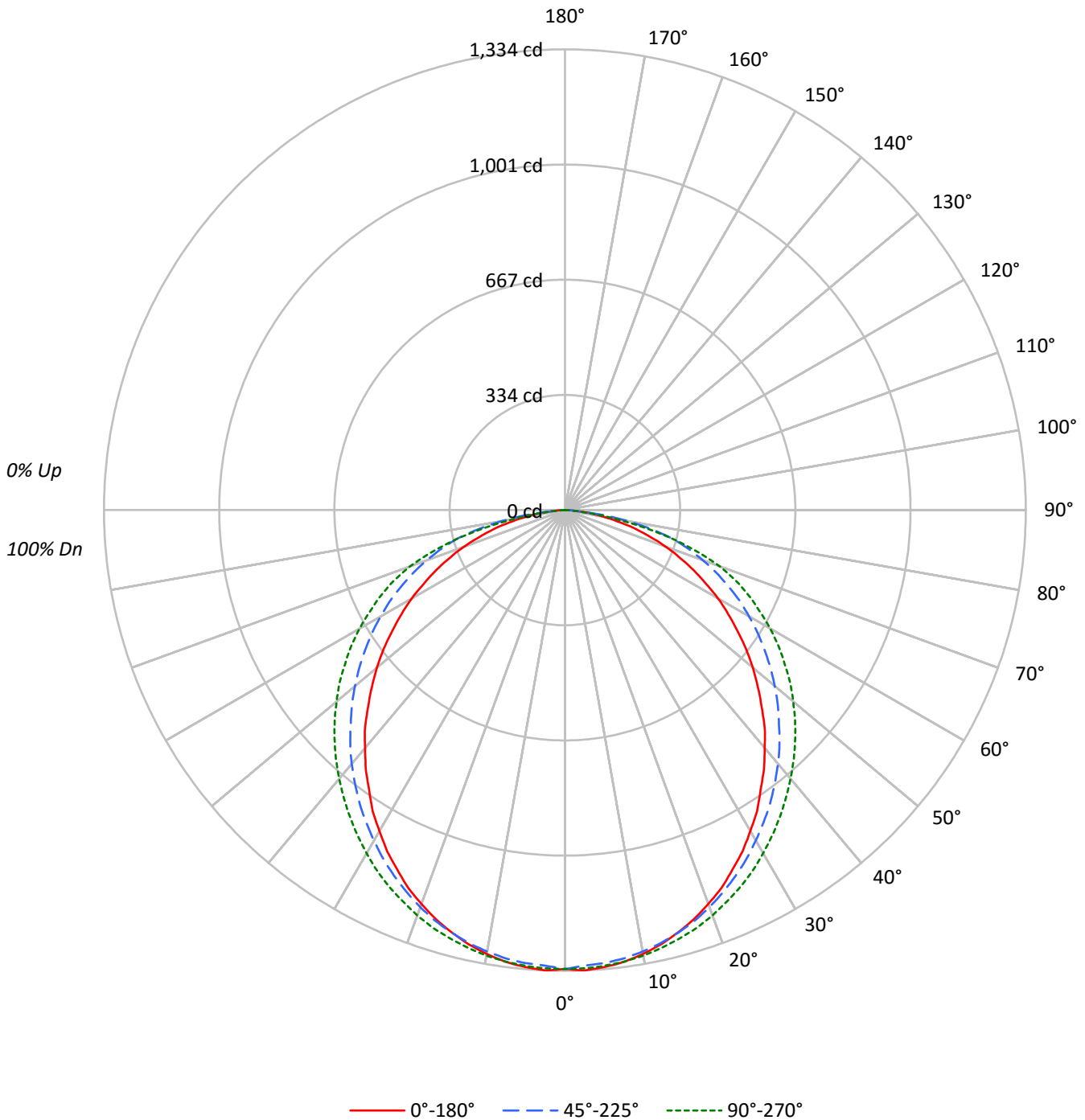
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3857.0 lumens  
Efficiency: N/A  
Efficacy: 100.7 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 (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°	3576	3576	3576
5°	3587	3557	3578
10°	3565	3546	3579
15°	3527	3529	3577
20°	3475	3505	3576
25°	3409	3470	3573
30°	3335	3434	3565
35°	3246	3404	3563
40°	3160	3372	3568
45°	3064	3335	3587
50°	2974	3319	3611
55°	2861	3309	3643
60°	2759	3314	3694
65°	2618	3324	3751
70°	2456	3349	3749
75°	2226	3380	3389
80°	1826	2918	2413
85°	1355	1380	559



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	125.7	3.3
10°-20°	359.2	9.3
20°-30°	541.1	14.0
30°-40°	649.3	16.8
40°-50°	676.7	17.5
50°-60°	626.5	16.2
60°-70°	506.2	13.1
70°-80°	308.6	8.0
80°-90°	63.7	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°	1026.0	26.6
0°-40°	1675.2	43.4
0°-60°	2978.5	77.2
0°-90°	3857.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3857.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1329	1329	1329	1329	1329	
5°	1328	1324	1317	1326	1324	126
15°	1266	1267	1267	1284	1284	357
25°	1148	1155	1169	1198	1203	529
35°	988	1004	1036	1074	1084	619
45°	805	829	876	925	943	622
55°	610	642	705	760	777	546
65°	411	452	522	574	589	407
75°	214	261	325	330	326	225
85°	44	65	45	25	18	54
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1328.7	1328.7	1328.7	1328.7	1328.7
2.5°	1333.9	1329.6	1320.1	1329.6	1327.9
5°	1327.9	1324.4	1316.7	1326.2	1324.4
7.5°	1319.3	1315.8	1309.0	1320.1	1318.4
10°	1304.7	1302.9	1297.8	1310.7	1309.8
12.5°	1287.5	1286.6	1284.0	1298.6	1297.8
15°	1266.0	1266.8	1266.8	1284.0	1284.0
17.5°	1241.9	1243.6	1247.0	1266.0	1268.5
20°	1213.5	1216.9	1223.8	1245.3	1248.8
22.5°	1184.3	1186.8	1197.2	1223.0	1226.4
25°	1148.1	1155.0	1168.8	1198.0	1203.2
27.5°	1113.7	1119.8	1138.7	1168.8	1177.4
30°	1073.3	1082.8	1105.1	1137.8	1147.3
32.5°	1034.6	1044.9	1070.7	1108.6	1117.2
35°	988.2	1003.7	1036.3	1074.2	1084.5
37.5°	946.0	960.7	997.6	1038.9	1051.0
40°	899.6	917.7	959.8	1003.7	1015.7
42.5°	856.6	873.8	919.4	964.1	980.4
45°	805.0	829.1	876.4	925.4	942.6
47.5°	757.7	781.8	836.0	888.4	903.9
50°	710.4	736.2	792.9	847.1	862.6
52.5°	661.4	688.9	749.9	804.1	822.2
55°	609.8	641.6	705.2	760.3	776.6
57.5°	560.7	593.4	661.4	717.3	733.6
60°	512.6	546.1	615.8	669.1	686.3
62.5°	459.3	498.8	571.1	623.5	636.4
65°	411.1	451.5	522.0	574.5	589.1
67.5°	360.4	404.2	474.7	522.9	536.7
70°	312.2	357.8	425.7	470.4	476.5
72.5°	260.6	307.0	375.8	404.2	404.2
75°	214.1	261.4	325.1	330.3	326.0
77.5°	163.4	215.9	257.1	246.8	236.5
80°	117.8	169.4	188.3	169.4	155.7
82.5°	79.1	123.0	113.5	90.3	80.0
85°	43.9	65.4	44.7	24.9	18.1
87.5°	16.3	14.6	4.3	4.3	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)