

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: P312278

Luminaire Tested: **14FCZ2-44-UNV-L83050-CP125-W2A-U-4500K**

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: P312278  
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-CP125-W2A-U-4500K  
Description: 1'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET  
Light Source: (168) 4500K 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: 4304.0 lumens  
Efficiency: N/A  
Efficacy: 107.1 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

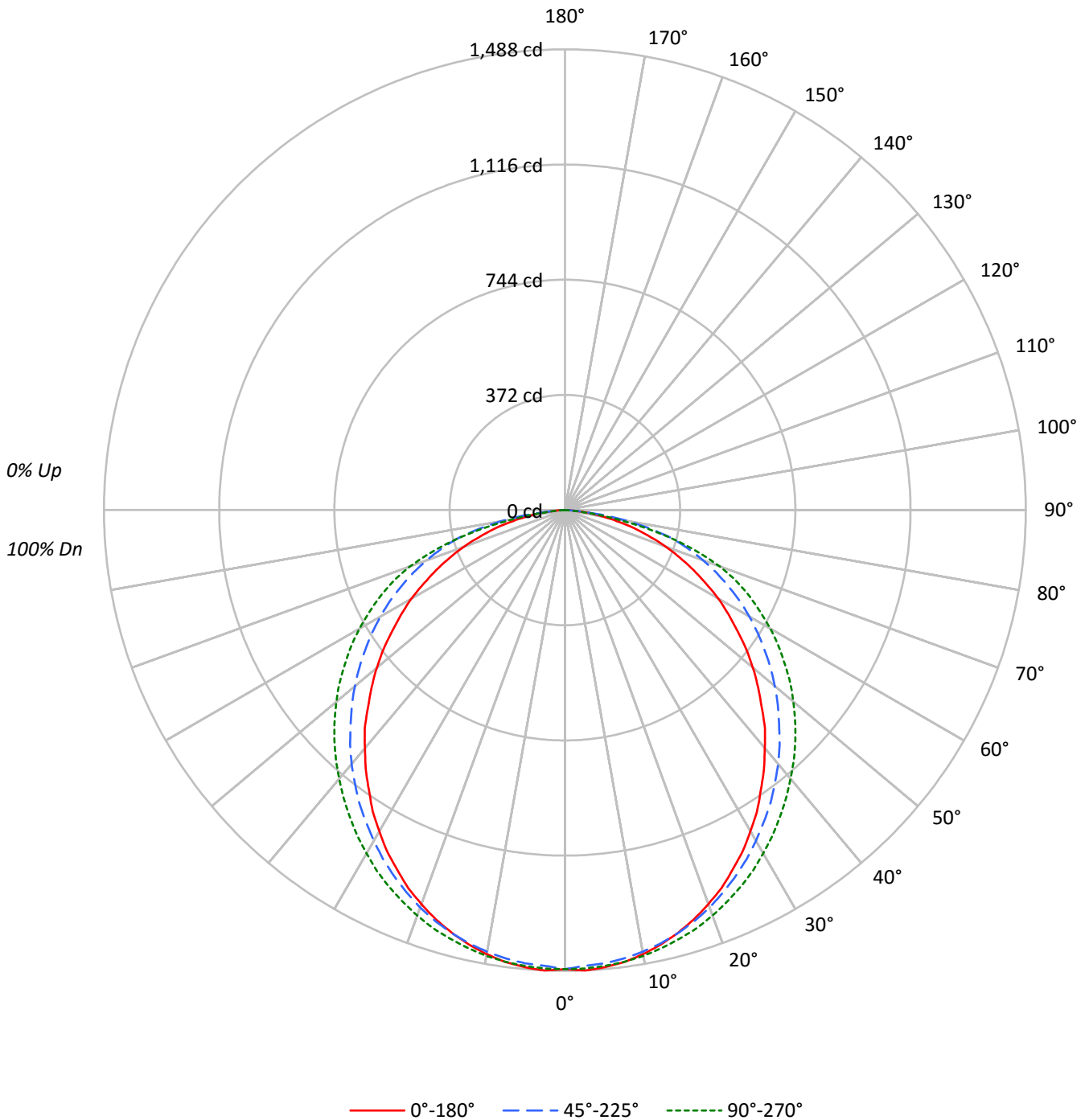
Input Watts (W): 40.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3990	3990	3990
5°	4003	3969	3992
10°	3978	3957	3994
15°	3936	3938	3992
20°	3878	3911	3991
25°	3804	3872	3986
30°	3722	3832	3978
35°	3622	3799	3976
40°	3526	3762	3981
45°	3419	3722	4003
50°	3319	3704	4030
55°	3192	3692	4066
60°	3078	3698	4122
65°	2921	3709	4186
70°	2741	3738	4183
75°	2485	3772	3781
80°	2038	3257	2692
85°	1510	1541	624



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	140.3	3.3
10°-20°	400.8	9.3
20°-30°	603.8	14.0
30°-40°	724.5	16.8
40°-50°	755.2	17.5
50°-60°	699.1	16.2
60°-70°	564.8	13.1
70°-80°	344.4	8.0
80°-90°	71.1	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°	1144.9	26.6
0°-40°	1869.4	43.4
0°-60°	3323.6	77.2
0°-90°	4304.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4304.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1483	1483	1483	1483	1483	
5°	1482	1478	1469	1480	1478	141
15°	1413	1414	1414	1433	1433	398
25°	1281	1289	1304	1337	1343	591
35°	1103	1120	1156	1199	1210	691
45°	898	925	978	1033	1052	694
55°	680	716	787	848	867	610
65°	459	504	582	641	657	454
75°	239	292	363	368	364	251
85°	49	73	50	28	20	60
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1482.7	1482.7	1482.7	1482.7	1482.7
2.5°	1488.5	1483.7	1473.1	1483.7	1481.8
5°	1481.8	1477.9	1469.3	1479.9	1477.9
7.5°	1472.2	1468.3	1460.7	1473.1	1471.2
10°	1455.9	1454.0	1448.2	1462.6	1461.6
12.5°	1436.7	1435.7	1432.8	1449.2	1448.2
15°	1412.7	1413.6	1413.6	1432.8	1432.8
17.5°	1385.8	1387.7	1391.6	1412.7	1415.6
20°	1354.1	1358.0	1365.7	1389.7	1393.5
22.5°	1321.5	1324.4	1335.9	1364.7	1368.5
25°	1281.2	1288.9	1304.2	1336.9	1342.6
27.5°	1242.8	1249.5	1270.6	1304.2	1313.8
30°	1197.7	1208.3	1233.2	1269.7	1280.2
32.5°	1154.5	1166.0	1194.8	1237.1	1246.7
35°	1102.7	1120.0	1156.4	1198.7	1210.2
37.5°	1055.7	1072.0	1113.3	1159.3	1172.8
40°	1003.8	1024.0	1071.0	1120.0	1133.4
42.5°	955.9	975.1	1025.9	1075.8	1094.1
45°	898.3	925.2	977.9	1032.6	1051.8
47.5°	845.5	872.4	932.8	991.4	1008.6
50°	792.7	821.5	884.8	945.3	962.6
52.5°	738.0	768.7	836.9	897.3	917.5
55°	680.4	715.9	787.0	848.4	866.6
57.5°	625.7	662.2	738.0	800.4	818.6
60°	572.0	609.4	687.1	746.6	765.8
62.5°	512.5	556.6	637.2	695.8	710.2
65°	458.7	503.8	582.5	641.1	657.4
67.5°	402.1	451.1	529.8	583.5	598.9
70°	348.4	399.2	475.1	525.0	531.7
72.5°	290.8	342.6	419.4	451.1	451.1
75°	239.0	291.7	362.8	368.5	363.7
77.5°	182.3	240.9	287.0	275.4	263.9
80°	131.5	189.1	210.2	189.1	173.7
82.5°	88.3	137.2	126.7	100.8	89.3
85°	48.9	72.9	49.9	27.8	20.2
87.5°	18.2	16.3	4.8	4.8	4.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)