

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: P312889

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-CP250-W2A-U-5000K**

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: P312889  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22FCZ2-44HE-UNV-L83050-CP250-W2A-U-5000K  
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.250" POLYCARB SHEET  
Light Source: (168) 5000K 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**

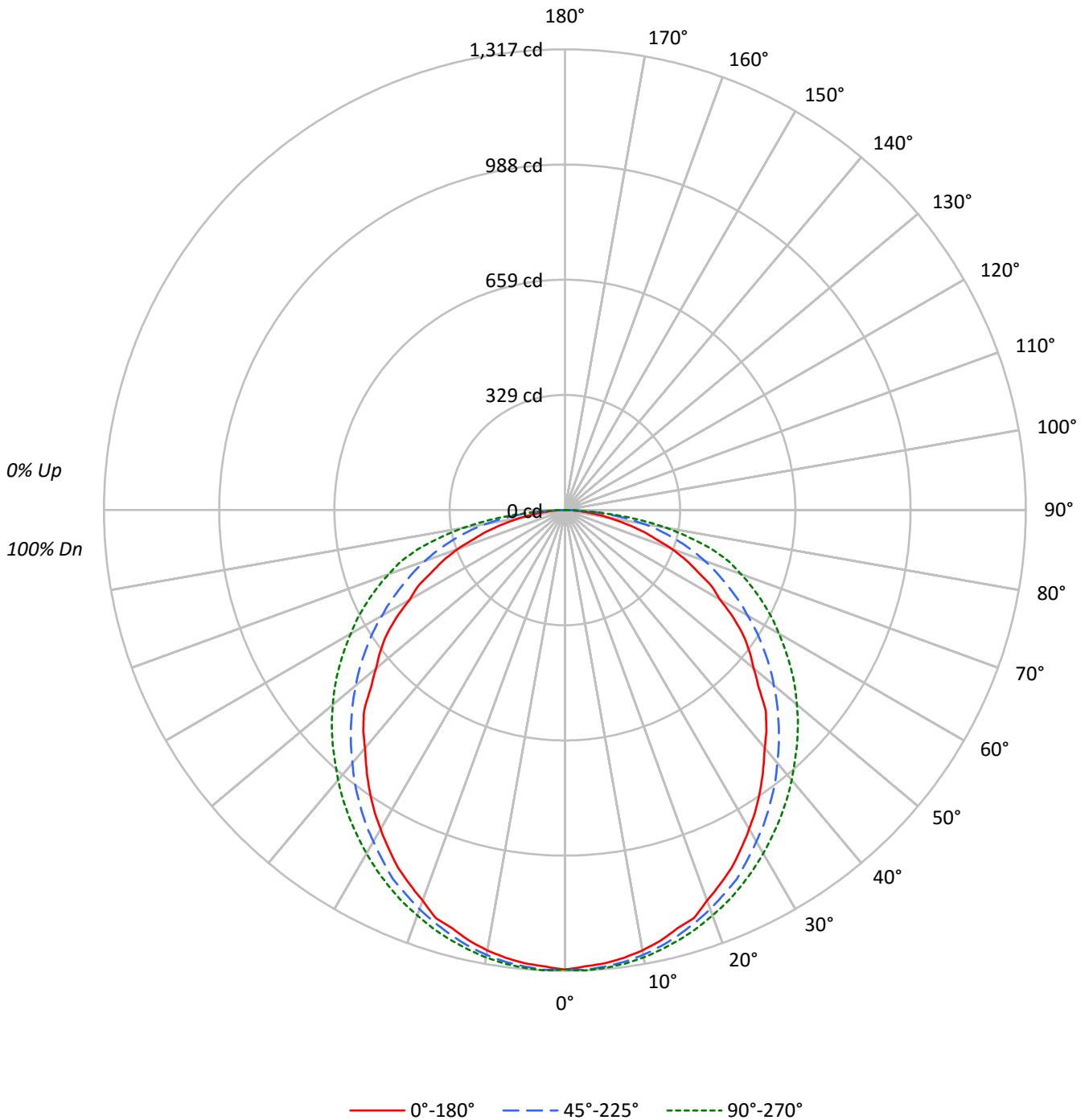
Lumens per Lamp: N/A  
Luminaire Lumens: 3915.0 lumens  
Efficiency: N/A  
Efficacy: 100.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 39  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	108	103	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3535	3535	3535
5°	3513	3538	3548
10°	3492	3528	3548
15°	3451	3503	3539
20°	3402	3477	3531
25°	3349	3455	3527
30°	3272	3400	3522
35°	3201	3361	3527
40°	3120	3318	3541
45°	3087	3287	3573
50°	2949	3263	3624
55°	2919	3253	3701
60°	2753	3247	3802
65°	2672	3269	3973
70°	2565	3346	4216
75°	2338	3449	4539
80°	2004	3572	4589
85°	1621	3415	3934



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.3	3.2
10°-20°	354.6	9.1
20°-30°	533.6	13.6
30°-40°	640.5	16.4
40°-50°	669.4	17.1
50°-60°	623.9	15.9
60°-70°	511.7	13.1
70°-80°	344.8	8.8
80°-90°	112.3	2.9
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°	1012.5	25.9
0°-40°	1653.0	42.2
0°-60°	2946.3	75.3
0°-90°	3915.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3915.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1314	1314	1314	1314	1314	
5°	1300	1304	1310	1312	1314	123
15°	1239	1246	1257	1268	1270	350
25°	1128	1136	1164	1180	1188	519
35°	974	988	1023	1059	1074	609
45°	811	817	864	916	939	620
55°	622	633	693	759	789	551
65°	420	438	513	588	624	418
75°	225	249	332	407	437	236
85°	52	75	111	129	127	62
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1313.5	1313.5	1313.5	1313.5	1313.5
2.5°	1306.0	1309.8	1315.4	1317.3	1317.3
5°	1300.4	1304.1	1309.8	1311.6	1313.5
7.5°	1291.0	1294.8	1302.3	1306.0	1307.9
10°	1277.9	1281.7	1291.0	1296.7	1298.5
12.5°	1261.1	1264.8	1276.0	1283.5	1285.4
15°	1238.6	1246.1	1257.3	1268.5	1270.4
17.5°	1223.6	1221.7	1236.7	1249.8	1253.6
20°	1188.0	1197.3	1214.2	1229.2	1232.9
22.5°	1158.0	1165.5	1188.0	1204.8	1212.3
25°	1128.0	1135.5	1163.6	1180.5	1188.0
27.5°	1090.5	1101.8	1128.0	1152.4	1161.7
30°	1053.1	1064.3	1094.3	1122.4	1133.6
32.5°	1015.6	1028.7	1060.6	1090.5	1103.7
35°	974.4	987.5	1023.1	1058.7	1073.7
37.5°	931.3	948.1	985.6	1025.0	1041.8
40°	888.2	905.0	944.4	989.4	1008.1
42.5°	852.6	860.1	905.0	953.8	972.5
45°	811.3	817.0	863.8	916.3	938.8
47.5°	751.4	772.0	822.6	880.7	903.2
50°	704.5	727.0	779.5	841.3	865.7
52.5°	665.2	680.2	738.3	800.1	828.2
55°	622.1	633.3	693.3	758.9	788.9
57.5°	569.6	590.2	650.2	717.7	747.6
60°	511.5	537.8	603.4	676.4	706.4
62.5°	474.1	489.1	560.3	633.3	667.1
65°	419.7	438.5	513.4	588.4	624.0
67.5°	374.8	393.5	470.3	545.3	580.9
70°	326.0	344.8	425.3	500.3	535.9
72.5°	269.8	296.1	380.4	455.3	492.8
75°	224.9	249.2	331.7	406.6	436.6
77.5°	174.3	206.1	282.9	344.8	367.3
80°	129.3	161.1	230.5	275.4	296.1
82.5°	88.1	119.9	172.4	206.1	217.4
85°	52.5	75.0	110.6	129.3	127.4
87.5°	24.4	31.9	45.0	45.0	43.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)