

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: P312872

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-CA125-W2A-U-4000K**

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: P312872  
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-CA125-W2A-U-4000K  
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET  
Light Source: (168) 4000K 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**

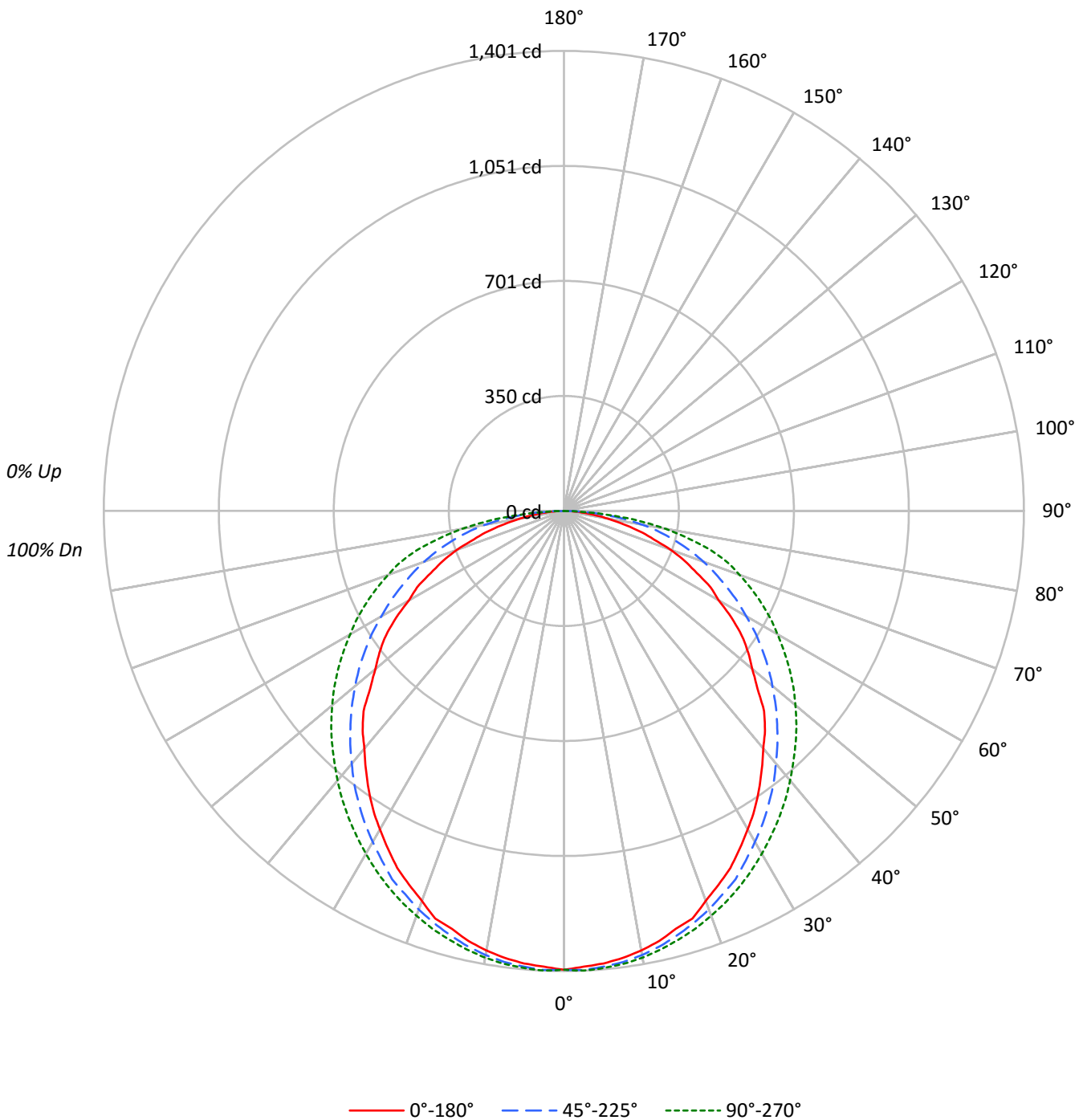
Lumens per Lamp: N/A  
Luminaire Lumens: 4164.0 lumens  
Efficiency: N/A  
Efficacy: 109.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 38.1  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	3760	3760	3760
5°	3736	3763	3774
10°	3714	3752	3774
15°	3670	3726	3764
20°	3618	3698	3755
25°	3562	3675	3752
30°	3480	3617	3746
35°	3404	3575	3752
40°	3319	3528	3766
45°	3284	3496	3800
50°	3137	3471	3854
55°	3104	3460	3936
60°	2928	3454	4043
65°	2842	3477	4226
70°	2729	3559	4485
75°	2487	3668	4828
80°	2131	3798	4880
85°	1723	3631	4184



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.2	3.2
10°-20°	377.1	9.1
20°-30°	567.6	13.6
30°-40°	681.2	16.4
40°-50°	712.0	17.1
50°-60°	663.5	15.9
60°-70°	544.2	13.1
70°-80°	366.7	8.8
80°-90°	119.4	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°	1076.9	25.9
0°-40°	1758.1	42.2
0°-60°	3133.6	75.3
0°-90°	4164.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4164.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1397	1397	1397	1397	1397	
5°	1383	1387	1393	1395	1397	131
15°	1317	1325	1337	1349	1351	372
25°	1200	1208	1238	1256	1264	552
35°	1036	1050	1088	1126	1142	648
45°	863	869	919	975	998	659
55°	662	674	737	807	839	586
65°	446	466	546	626	664	444
75°	239	265	353	432	464	251
85°	56	80	118	138	136	66
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1397.1	1397.1	1397.1	1397.1	1397.1
2.5°	1389.1	1393.1	1399.1	1401.0	1401.0
5°	1383.1	1387.1	1393.1	1395.1	1397.1
7.5°	1373.1	1377.1	1385.1	1389.1	1391.1
10°	1359.2	1363.2	1373.1	1379.1	1381.1
12.5°	1341.3	1345.2	1357.2	1365.2	1367.2
15°	1317.3	1325.3	1337.3	1349.2	1351.2
17.5°	1301.4	1299.4	1315.3	1329.3	1333.3
20°	1263.5	1273.5	1291.4	1307.4	1311.4
22.5°	1231.6	1239.6	1263.5	1281.5	1289.4
25°	1199.8	1207.7	1237.6	1255.6	1263.5
27.5°	1159.9	1171.9	1199.8	1225.7	1235.6
30°	1120.0	1132.0	1163.9	1193.8	1205.7
32.5°	1080.2	1094.1	1128.0	1159.9	1173.8
35°	1036.3	1050.3	1088.2	1126.0	1142.0
37.5°	990.5	1008.4	1048.3	1090.1	1108.1
40°	944.7	962.6	1004.4	1052.3	1072.2
42.5°	906.8	914.8	962.6	1014.4	1034.3
45°	862.9	868.9	918.7	974.6	998.5
47.5°	799.2	821.1	874.9	936.7	960.6
50°	749.3	773.3	829.1	894.8	920.7
52.5°	707.5	723.4	785.2	851.0	880.9
55°	661.7	673.6	737.4	807.1	839.0
57.5°	605.9	627.8	691.6	763.3	795.2
60°	544.1	572.0	641.7	719.5	751.3
62.5°	504.2	520.2	595.9	673.6	709.5
65°	446.4	466.4	546.1	625.8	663.7
67.5°	398.6	418.5	500.2	579.9	617.8
70°	346.8	366.7	452.4	532.1	570.0
72.5°	287.0	314.9	404.6	484.3	524.1
75°	239.2	265.1	352.8	432.5	464.4
77.5°	185.3	219.2	300.9	366.7	390.6
80°	137.5	171.4	245.1	293.0	314.9
82.5°	93.7	127.5	183.4	219.2	231.2
85°	55.8	79.7	117.6	137.5	135.5
87.5°	25.9	33.9	47.8	47.8	45.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)