

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: P309110

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-S-CA125-W2A-U-5500K**

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: P309110  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)  
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-L82765-S-CA125-W2A-U-5500K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET  
Light Source: (168) 3000K 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**

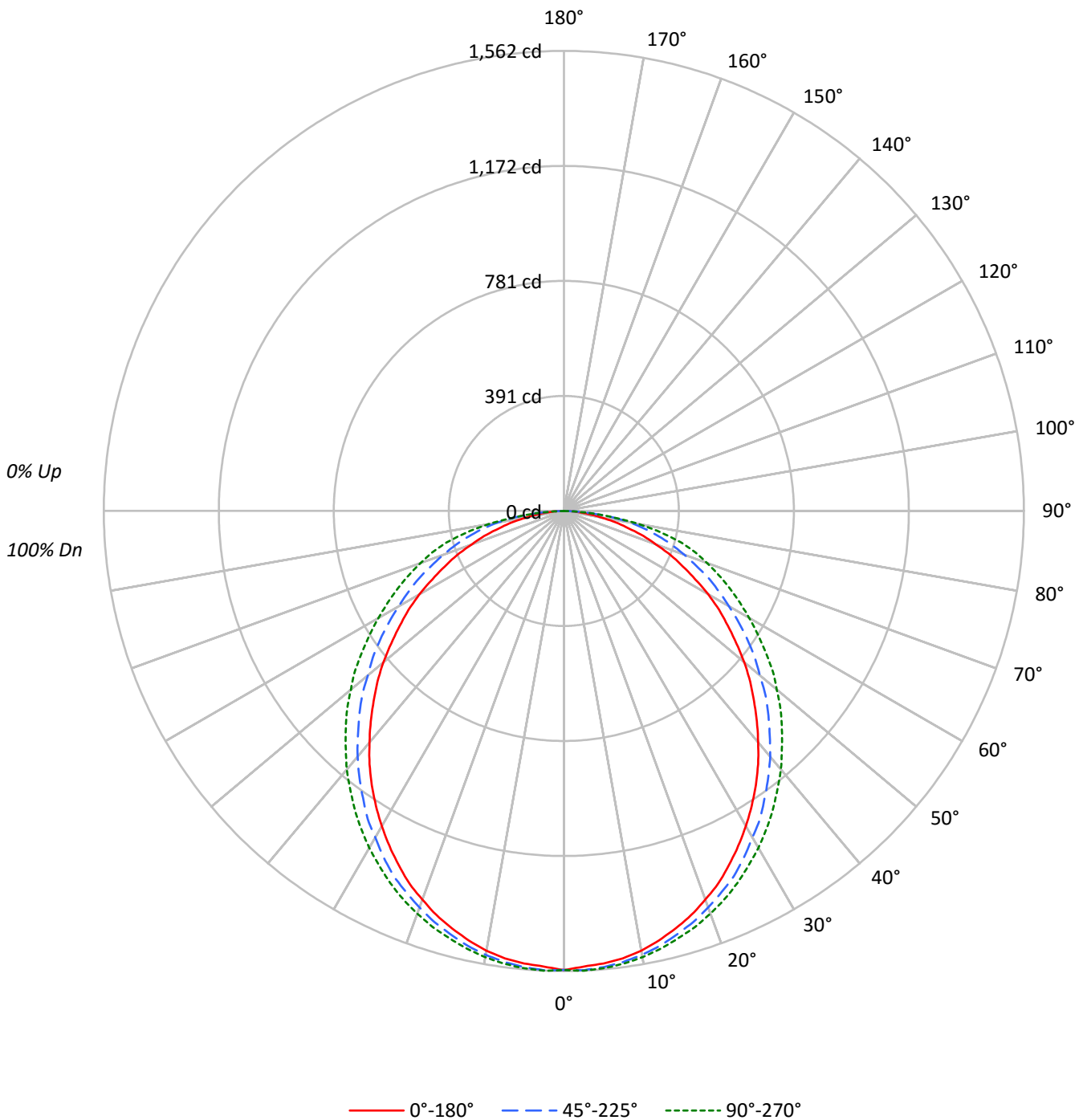
Lumens per Lamp: N/A  
Luminaire Lumens: 4349.0 lumens  
Efficiency: N/A  
Efficacy: 113.8 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 38.2  
Input Voltage (V): NR  
Input Current (A<sub>in</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	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	4194	4194	4194
5°	4166	4199	4210
10°	4142	4181	4203
15°	4087	4144	4183
20°	4021	4103	4166
25°	3940	4061	4139
30°	3840	3979	4105
35°	3733	3906	4066
40°	3607	3828	4027
45°	3475	3737	3984
50°	3347	3636	3950
55°	3189	3570	3922
60°	3047	3484	3909
65°	2842	3463	3954
70°	2618	3433	4071
75°	2363	3481	4283
80°	2044	3584	4025
85°	1692	3007	3007



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	147.4	3.4
10°-20°	419.4	9.6
20°-30°	627.5	14.4
30°-40°	743.2	17.1
40°-50°	757.4	17.4
50°-60°	678.8	15.6
60°-70°	531.4	12.2
70°-80°	342.7	7.9
80°-90°	101.2	2.3
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°	1194.3	27.5
0°-40°	1937.4	44.5
0°-60°	3373.6	77.6
0°-90°	4349.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4349.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1558	1558	1558	1558	1558	
5°	1542	1546	1554	1556	1558	146
15°	1467	1475	1487	1500	1502	414
25°	1327	1339	1368	1386	1394	611
35°	1136	1150	1189	1226	1238	710
45°	913	933	982	1033	1047	705
55°	680	702	761	814	836	609
65°	446	473	544	597	621	443
75°	227	262	335	392	412	244
85°	55	75	97	97	97	64
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1558.4	1558.4	1558.4	1558.4	1558.4
2.5°	1548.2	1552.3	1560.4	1562.4	1562.4
5°	1542.1	1546.2	1554.3	1556.4	1558.4
7.5°	1532.0	1534.0	1544.2	1548.2	1550.3
10°	1515.8	1519.8	1530.0	1536.1	1538.1
12.5°	1493.4	1499.5	1511.7	1519.8	1521.9
15°	1467.1	1475.2	1487.4	1499.5	1501.6
17.5°	1438.7	1446.8	1463.0	1477.2	1481.3
20°	1404.2	1414.3	1432.6	1448.8	1454.9
22.5°	1369.7	1377.8	1400.1	1420.4	1426.5
25°	1327.1	1339.2	1367.6	1385.9	1394.0
27.5°	1282.4	1296.6	1325.0	1349.4	1357.5
30°	1235.7	1250.0	1280.4	1310.8	1321.0
32.5°	1187.0	1203.3	1239.8	1270.2	1280.4
35°	1136.3	1150.5	1189.1	1225.6	1237.8
37.5°	1083.6	1095.7	1140.4	1178.9	1191.1
40°	1026.7	1043.0	1089.7	1134.3	1146.5
42.5°	969.9	988.2	1034.9	1083.6	1095.7
45°	913.1	933.4	982.1	1032.8	1047.0
47.5°	858.3	874.6	929.3	978.0	998.3
50°	799.5	815.7	868.5	923.3	943.6
52.5°	738.6	760.9	817.7	870.5	894.9
55°	679.8	702.1	760.9	813.7	836.0
57.5°	625.0	643.2	704.1	758.9	781.2
60°	566.1	582.4	647.3	706.1	726.4
62.5°	503.2	527.6	594.5	649.3	673.7
65°	446.4	472.8	543.8	596.6	620.9
67.5°	393.7	418.0	487.0	543.8	570.2
70°	332.8	365.2	436.3	493.1	517.4
72.5°	284.1	312.5	385.5	442.4	468.7
75°	227.3	261.8	334.8	391.6	411.9
77.5°	180.6	215.1	284.1	328.7	338.9
80°	131.9	166.4	231.3	253.6	259.7
82.5°	89.3	121.7	166.4	172.5	174.5
85°	54.8	75.1	97.4	97.4	97.4
87.5°	26.4	30.4	34.5	32.5	32.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)