

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: P309065

Luminaire Tested: **22FCZ2-39HE-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: P309065  
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: 22FCZ2-39HE-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**

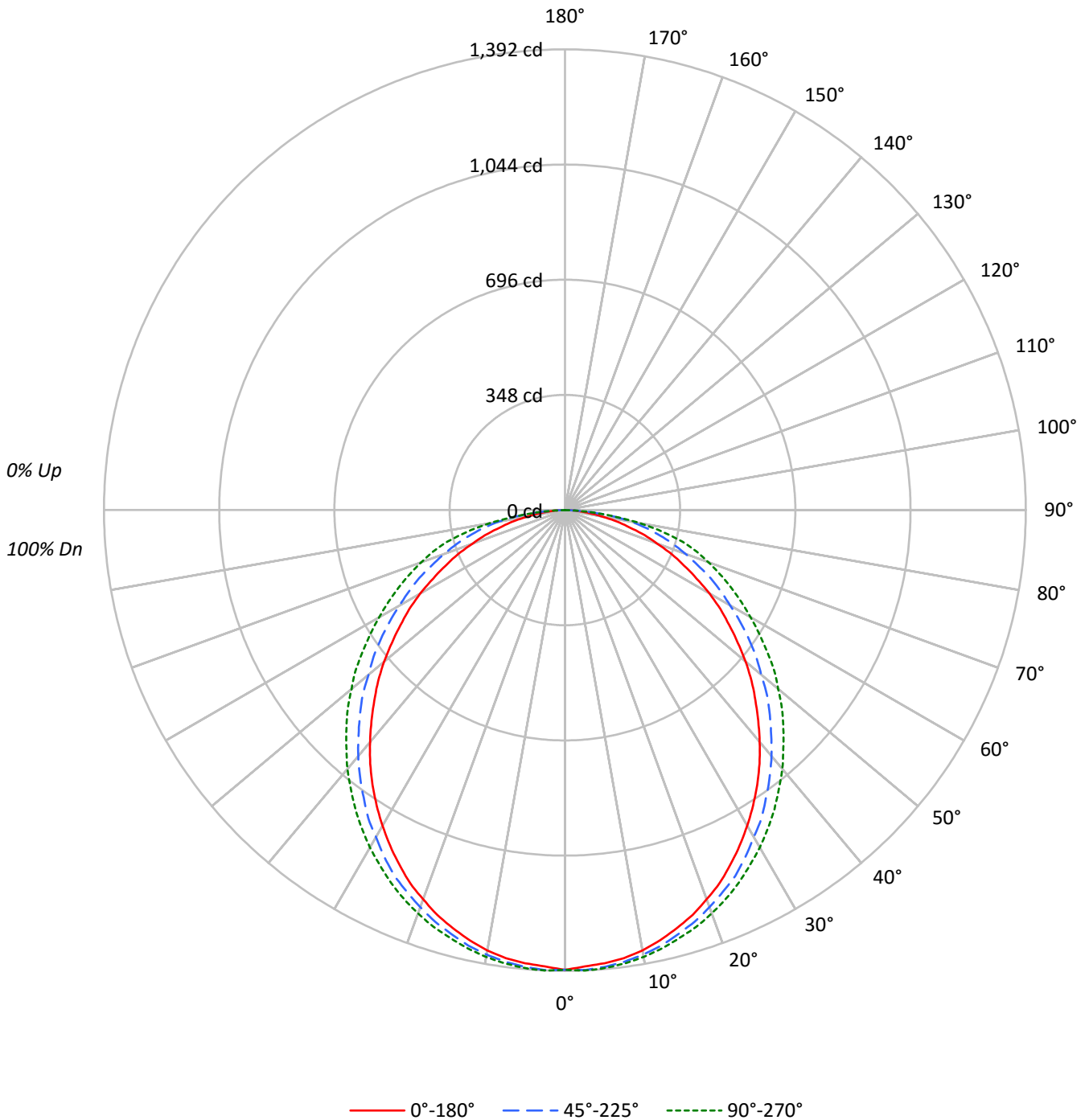
Lumens per Lamp: N/A  
Luminaire Lumens: 3876.0 lumens  
Efficiency: N/A  
Efficacy: 116.4 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 33.3  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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°	3738	3738	3738
5°	3713	3742	3752
10°	3691	3726	3746
15°	3643	3693	3728
20°	3584	3656	3713
25°	3512	3619	3689
30°	3422	3546	3658
35°	3327	3482	3624
40°	3215	3411	3589
45°	3097	3331	3551
50°	2983	3240	3520
55°	2842	3182	3496
60°	2716	3105	3484
65°	2534	3086	3524
70°	2334	3059	3629
75°	2105	3103	3817
80°	1821	3195	3587
85°	1507	2680	2680



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	131.3	3.4
10°-20°	373.8	9.6
20°-30°	559.3	14.4
30°-40°	662.3	17.1
40°-50°	675.0	17.4
50°-60°	605.0	15.6
60°-70°	473.7	12.2
70°-80°	305.4	7.9
80°-90°	90.2	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°	1064.4	27.5
0°-40°	1726.7	44.5
0°-60°	3006.7	77.6
0°-90°	3876.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3876.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1389	1389	1389	1389	1389	
5°	1374	1378	1385	1387	1389	130
15°	1308	1315	1326	1336	1338	369
25°	1183	1194	1219	1235	1242	544
35°	1013	1025	1060	1092	1103	633
45°	814	832	875	920	933	628
55°	606	626	678	725	745	543
65°	398	421	485	532	553	395
75°	202	233	298	349	367	217
85°	49	67	87	87	87	57
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1388.9	1388.9	1388.9	<i>1388.9</i>	1388.9
2.5°	<i>1379.8</i>	<i>1383.5</i>	<i>1390.7</i>	<i>1392.5</i>	<i>1392.5</i>
5°	1374.4	1378.0	1385.3	<i>1387.1</i>	1388.9
7.5°	1365.4	1367.2	1376.2	<i>1379.8</i>	1381.7
10°	1350.9	1354.5	1363.6	<i>1369.0</i>	1370.8
12.5°	1331.0	1336.4	1347.3	<i>1354.5</i>	1356.3
15°	1307.5	1314.7	1325.6	<i>1336.4</i>	1338.3
17.5°	1282.2	1289.4	1303.9	<i>1316.6</i>	1320.2
20°	1251.4	1260.5	1276.8	<i>1291.2</i>	1296.7
22.5°	1220.7	1227.9	1247.8	<i>1265.9</i>	1271.3
25°	1182.7	1193.6	1218.9	<i>1235.2</i>	1242.4
27.5°	1142.9	1155.6	1180.9	<i>1202.6</i>	1209.9
30°	1101.3	1114.0	1141.1	<i>1168.3</i>	1177.3
32.5°	1057.9	1072.4	1105.0	<i>1132.1</i>	1141.1
35°	1012.7	1025.4	1059.8	<i>1092.3</i>	1103.2
37.5°	965.7	976.6	1016.4	<i>1050.7</i>	1061.6
40°	915.1	929.5	971.1	<i>1010.9</i>	1021.8
42.5°	864.4	880.7	922.3	<i>965.7</i>	976.6
45°	813.8	831.9	875.3	<i>920.5</i>	933.2
47.5°	765.0	779.4	828.3	<i>871.7</i>	889.8
50°	712.5	727.0	774.0	<i>822.8</i>	840.9
52.5°	658.3	678.2	728.8	<i>775.8</i>	797.5
55°	605.8	625.7	678.2	<i>725.2</i>	745.1
57.5°	557.0	573.3	627.5	<i>676.4</i>	696.3
60°	504.6	519.0	576.9	<i>629.3</i>	647.4
62.5°	448.5	470.2	529.9	<i>578.7</i>	600.4
65°	397.9	421.4	484.7	<i>531.7</i>	553.4
67.5°	350.8	372.5	434.0	<i>484.7</i>	508.2
70°	296.6	325.5	388.8	<i>439.5</i>	461.2
72.5°	253.2	278.5	343.6	<i>394.2</i>	417.8
75°	202.5	233.3	298.4	<i>349.0</i>	367.1
77.5°	161.0	191.7	253.2	<i>293.0</i>	302.0
80°	117.5	148.3	206.2	<i>226.1</i>	231.5
82.5°	79.6	108.5	148.3	<i>153.7</i>	155.5
85°	48.8	66.9	86.8	<i>86.8</i>	86.8
87.5°	23.5	27.1	30.7	<i>28.9</i>	28.9
90°	0.0	0.0	0.0	<i>0.0</i>	0.0

(END OF REPORT)