

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: P309095

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-S-CA08-W2A-U-2700K**

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: P309095  
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-CA08-W2A-U-2700K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.08" 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**

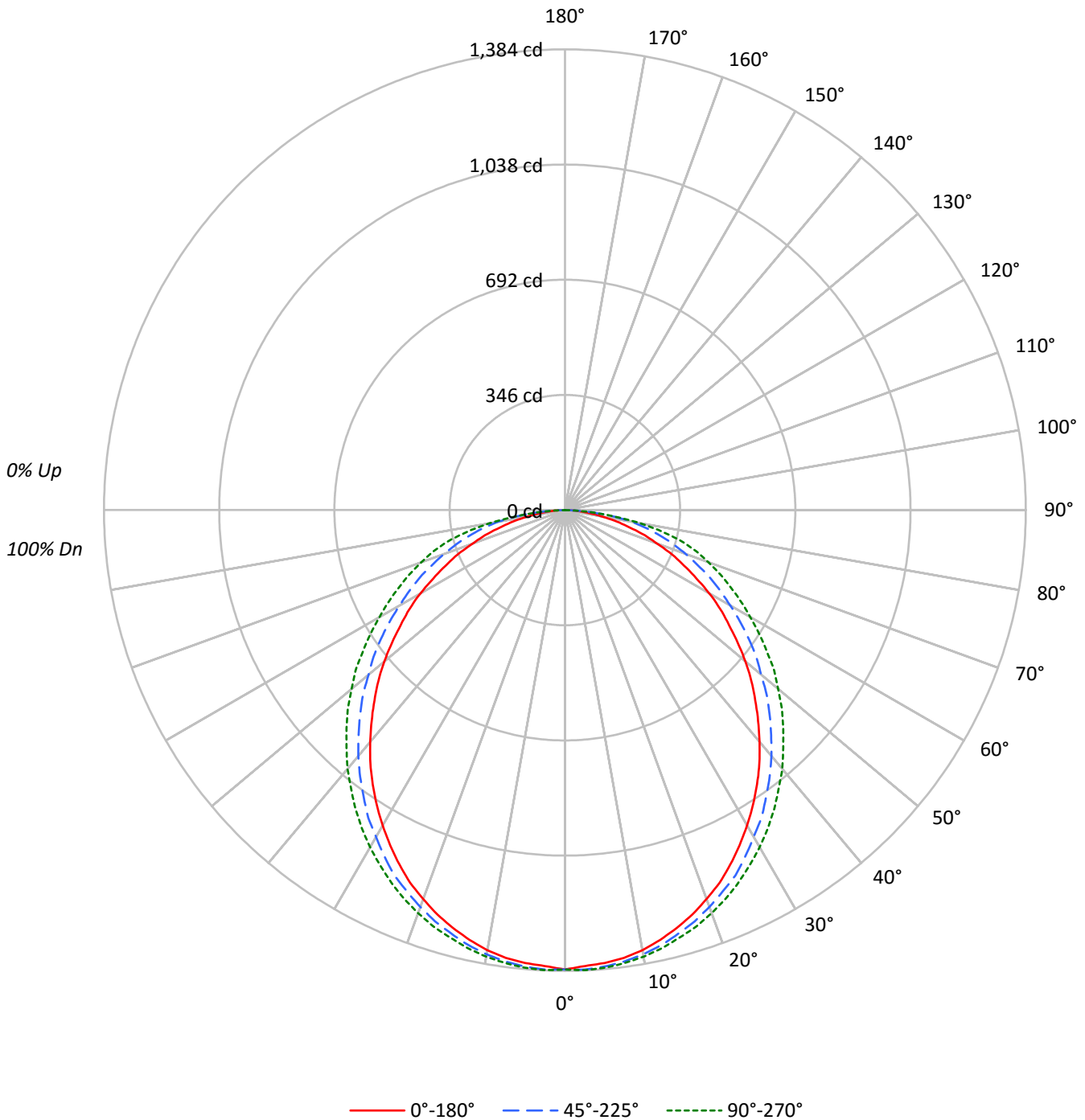
Lumens per Lamp: N/A  
Luminaire Lumens: 3851.0 lumens  
Efficiency: N/A  
Efficacy: 103.5 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 37.2  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	3713	3713	3713
5°	3689	3718	3727
10°	3668	3702	3722
15°	3619	3669	3704
20°	3561	3633	3689
25°	3489	3596	3665
30°	3400	3523	3635
35°	3305	3459	3600
40°	3194	3390	3566
45°	3077	3309	3528
50°	2964	3219	3498
55°	2824	3161	3473
60°	2698	3085	3462
65°	2517	3066	3501
70°	2319	3039	3605
75°	2092	3083	3792
80°	1810	3174	3564
85°	1497	2661	2661



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	130.5	3.4
10°-20°	371.4	9.6
20°-30°	555.7	14.4
30°-40°	658.1	17.1
40°-50°	670.6	17.4
50°-60°	601.1	15.6
60°-70°	470.6	12.2
70°-80°	303.5	7.9
80°-90°	89.6	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°	1057.5	27.5
0°-40°	1715.6	44.5
0°-60°	2987.3	77.6
0°-90°	3851.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3851.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1380	1380	1380	1380	1380	
5°	1366	1369	1376	1378	1380	130
15°	1299	1306	1317	1328	1330	366
25°	1175	1186	1211	1227	1234	541
35°	1006	1019	1053	1085	1096	629
45°	809	826	870	915	927	624
55°	602	622	674	720	740	540
65°	395	419	482	528	550	393
75°	201	232	296	347	365	216
85°	48	66	86	86	86	57
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1379.9	1379.9	1379.9	1379.9	1379.9
2.5°	1370.9	1374.5	1381.7	1383.5	1383.5
5°	1365.6	1369.2	1376.3	1378.1	1379.9
7.5°	1356.6	1358.4	1367.4	1370.9	1372.7
10°	1342.2	1345.8	1354.8	1360.2	1362.0
12.5°	1322.4	1327.8	1338.6	1345.8	1347.6
15°	1299.1	1306.3	1317.0	1327.8	1329.6
17.5°	1273.9	1281.1	1295.5	1308.1	1311.7
20°	1243.4	1252.4	1268.5	1282.9	1288.3
22.5°	1212.8	1220.0	1239.8	1257.8	1263.1
25°	1175.1	1185.9	1211.0	1227.2	1234.4
27.5°	1135.6	1148.1	1173.3	1194.9	1202.1
30°	1094.2	1106.8	1133.8	1160.7	1169.7
32.5°	1051.1	1065.5	1097.8	1124.8	1133.8
35°	1006.2	1018.8	1052.9	1085.3	1096.0
37.5°	959.5	970.3	1009.8	1043.9	1054.7
40°	909.2	923.5	964.9	1004.4	1015.2
42.5°	858.9	875.0	916.4	959.5	970.3
45°	808.6	826.5	869.6	914.6	927.1
47.5°	760.0	774.4	822.9	866.1	884.0
50°	707.9	722.3	769.0	817.5	835.5
52.5°	654.0	673.8	724.1	770.8	792.4
55°	601.9	621.7	673.8	720.5	740.3
57.5°	553.4	569.6	623.5	672.0	691.8
60°	501.3	515.7	573.2	625.3	643.3
62.5°	445.6	467.2	526.5	575.0	596.5
65°	395.3	418.7	481.5	528.3	549.8
67.5°	348.6	370.1	431.2	481.5	504.9
70°	294.7	323.4	386.3	436.6	458.2
72.5°	251.6	276.7	341.4	391.7	415.1
75°	201.2	231.8	296.5	346.8	364.7
77.5°	159.9	190.5	251.6	291.1	300.1
80°	116.8	147.3	204.8	224.6	230.0
82.5°	79.1	107.8	147.3	152.7	154.5
85°	48.5	66.5	86.2	86.2	86.2
87.5°	23.4	27.0	30.5	28.7	28.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)