

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: P308828

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-CA08-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: P308828  
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-L82765-CA08-W2A-U-4000K  
Description: 2'X2' TROFFER LED MODULE, RIBBED 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**

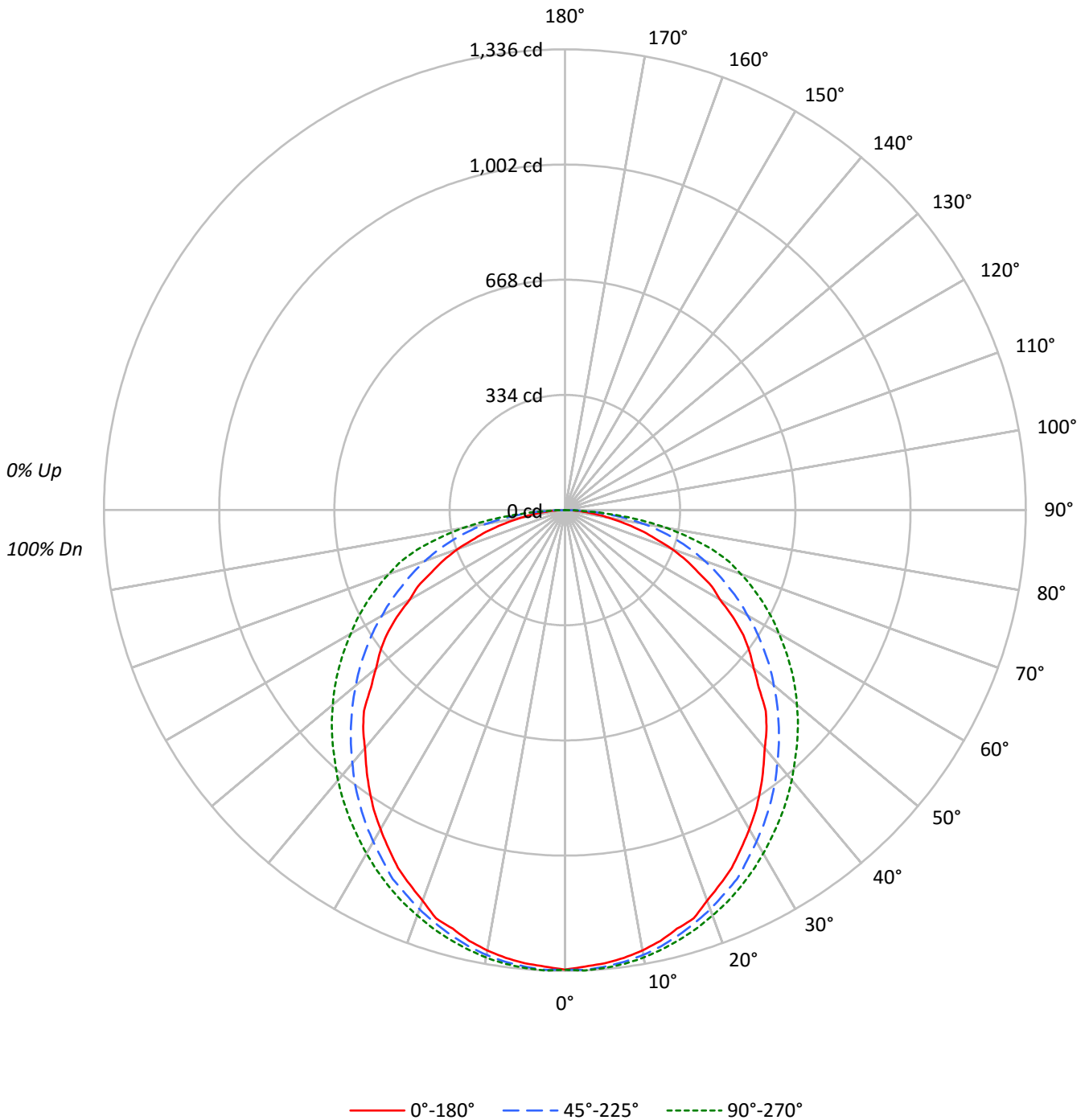
Lumens per Lamp: N/A  
Luminaire Lumens: 3972.0 lumens  
Efficiency: N/A  
Efficacy: 105.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 37.6  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	3586	3586	3586
5°	3564	3589	3600
10°	3543	3579	3600
15°	3501	3554	3591
20°	3452	3528	3582
25°	3398	3505	3579
30°	3320	3450	3574
35°	3247	3410	3578
40°	3165	3366	3593
45°	3133	3335	3624
50°	2992	3311	3677
55°	2961	3300	3755
60°	2793	3294	3857
65°	2711	3317	4031
70°	2603	3395	4278
75°	2372	3499	4605
80°	2033	3623	4655
85°	1643	3464	3992



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	126.1	3.2
10°-20°	359.7	9.1
20°-30°	541.4	13.6
30°-40°	649.8	16.4
40°-50°	679.2	17.1
50°-60°	632.9	15.9
60°-70°	519.1	13.1
70°-80°	349.8	8.8
80°-90°	113.9	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°	1027.2	25.9
0°-40°	1677.0	42.2
0°-60°	2989.2	75.3
0°-90°	3972.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3972.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1333	1333	1333	1333	1333	
5°	1319	1323	1329	1331	1333	125
15°	1257	1264	1276	1287	1289	355
25°	1144	1152	1181	1198	1205	526
35°	988	1002	1038	1074	1089	618
45°	823	829	876	930	952	629
55°	631	643	703	770	800	559
65°	426	445	521	597	633	424
75°	228	253	336	412	443	240
85°	53	76	112	131	129	63
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1332.6	1332.6	1332.6	1332.6	1332.6
2.5°	1325.0	1328.8	1334.5	1336.4	1336.4
5°	1319.3	1323.1	1328.8	1330.7	1332.6
7.5°	1309.8	1313.6	1321.2	1325.0	1326.9
10°	1296.5	1300.3	1309.8	1315.5	1317.4
12.5°	1279.4	1283.2	1294.6	1302.2	1304.1
15°	1256.6	1264.2	1275.6	1287.0	1288.9
17.5°	1241.4	1239.5	1254.7	1268.0	1271.8
20°	1205.3	1214.8	1231.9	1247.1	1250.9
22.5°	1174.9	1182.5	1205.3	1222.4	1230.0
25°	1144.4	1152.0	1180.6	1197.7	1205.3
27.5°	1106.4	1117.8	1144.4	1169.1	1178.7
30°	1068.4	1079.8	1110.2	1138.7	1150.1
32.5°	1030.4	1043.7	1076.0	1106.4	1119.7
35°	988.5	1001.9	1038.0	1074.1	1089.3
37.5°	944.8	961.9	1000.0	1039.9	1057.0
40°	901.1	918.2	958.1	1003.8	1022.8
42.5°	865.0	872.6	918.2	967.6	986.6
45°	823.2	828.9	876.4	929.6	952.4
47.5°	762.3	783.2	834.6	893.5	916.3
50°	714.8	737.6	790.8	853.6	878.3
52.5°	674.9	690.1	749.0	811.8	840.3
55°	631.2	642.6	703.4	769.9	800.3
57.5°	577.9	598.8	659.7	728.1	758.5
60°	519.0	545.6	612.1	686.3	716.7
62.5°	481.0	496.2	568.4	642.6	676.8
65°	425.8	444.8	520.9	596.9	633.1
67.5°	380.2	399.2	477.2	553.2	589.3
70°	330.8	349.8	431.5	507.6	543.7
72.5°	273.8	300.4	385.9	462.0	500.0
75°	228.1	252.8	336.5	412.5	442.9
77.5°	176.8	209.1	287.1	349.8	372.6
80°	131.2	163.5	233.8	279.5	300.4
82.5°	89.3	121.7	174.9	209.1	220.5
85°	53.2	76.0	112.2	131.2	129.3
87.5°	24.7	32.3	45.6	45.6	43.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)