

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: P308869

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-CP250-W2A-U-6500K**

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: P308869  
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-CP250-W2A-U-6500K  
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.250" POLYCARB 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**

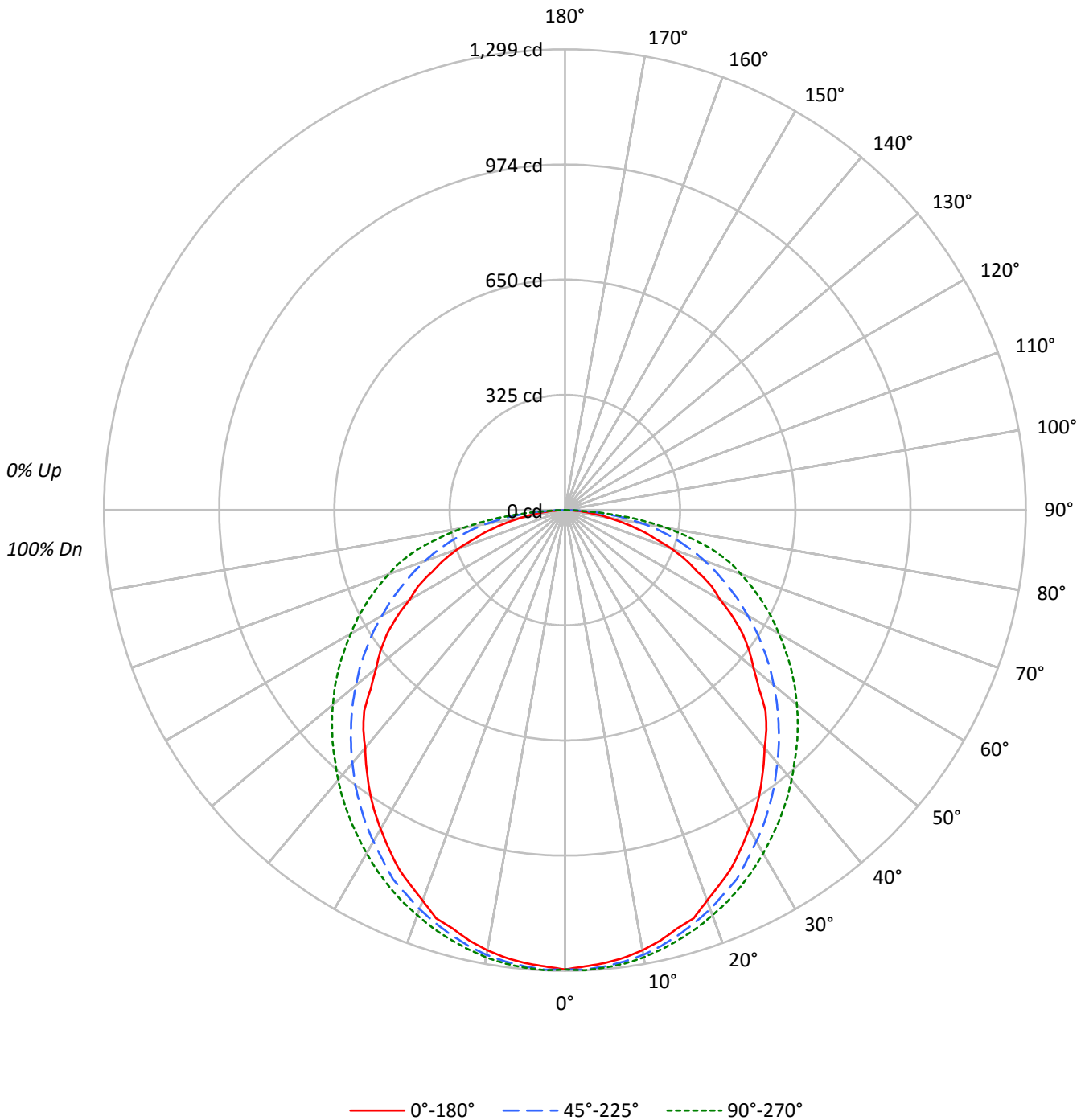
Lumens per Lamp: N/A  
Luminaire Lumens: 3860.0 lumens  
Efficiency: N/A  
Efficacy: 99.2 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 38.9  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	3485	3485	3485
5°	3463	3488	3498
10°	3443	3478	3498
15°	3402	3453	3490
20°	3354	3428	3481
25°	3302	3407	3478
30°	3226	3352	3473
35°	3156	3314	3478
40°	3076	3271	3491
45°	3044	3241	3522
50°	2908	3217	3573
55°	2878	3207	3649
60°	2715	3202	3749
65°	2635	3223	3917
70°	2530	3300	4157
75°	2305	3400	4476
80°	1976	3521	4523
85°	1596	3365	3878



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	122.5	3.2
10°-20°	349.6	9.1
20°-30°	526.1	13.6
30°-40°	631.5	16.4
40°-50°	660.0	17.1
50°-60°	615.1	15.9
60°-70°	504.5	13.1
70°-80°	339.9	8.8
80°-90°	110.7	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°	998.3	25.9
0°-40°	1629.8	42.2
0°-60°	2904.9	75.3
0°-90°	3860.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3860.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1295	1295	1295	1295	1295	
5°	1282	1286	1291	1293	1295	122
15°	1221	1229	1240	1251	1253	345
25°	1112	1120	1147	1164	1171	511
35°	961	974	1009	1044	1059	601
45°	800	806	852	903	926	611
55°	613	624	684	748	778	543
65°	414	432	506	580	615	412
75°	222	246	327	401	430	233
85°	52	74	109	128	126	62
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1295.1	1295.1	1295.1	1295.1	1295.1
2.5°	1287.7	1291.4	1296.9	1298.8	1298.8
5°	1282.1	1285.8	1291.4	1293.2	1295.1
7.5°	1272.9	1276.6	1284.0	1287.7	1289.5
10°	1260.0	1263.7	1272.9	1278.4	1280.3
12.5°	1243.3	1247.0	1258.1	1265.5	1267.4
15°	1221.2	1228.6	1239.6	1250.7	1252.6
17.5°	1206.4	1204.5	1219.3	1232.2	1235.9
20°	1171.3	1180.5	1197.1	1211.9	1215.6
22.5°	1141.7	1149.1	1171.3	1187.9	1195.3
25°	1112.2	1119.6	1147.3	1163.9	1171.3
27.5°	1075.2	1086.3	1112.2	1136.2	1145.4
30°	1038.3	1049.4	1078.9	1106.6	1117.7
32.5°	1001.3	1014.3	1045.7	1075.2	1088.1
35°	960.7	973.6	1008.7	1043.8	1058.6
37.5°	918.2	934.8	971.8	1010.6	1027.2
40°	875.7	892.3	931.1	975.5	993.9
42.5°	840.6	848.0	892.3	940.4	958.8
45°	799.9	805.5	851.7	903.4	925.6
47.5°	740.8	761.1	811.0	868.3	890.5
50°	694.6	716.8	768.5	829.5	853.5
52.5°	655.8	670.6	727.9	788.9	816.6
55°	613.4	624.4	683.6	748.2	777.8
57.5°	561.6	581.9	641.1	707.6	737.1
60°	504.4	530.2	594.9	666.9	696.5
62.5°	467.4	482.2	552.4	624.4	657.7
65°	413.8	432.3	506.2	580.1	615.2
67.5°	369.5	388.0	463.7	537.6	572.7
70°	321.5	339.9	419.4	493.3	528.4
72.5°	266.0	291.9	375.0	448.9	485.9
75°	221.7	245.7	327.0	400.9	430.5
77.5°	171.8	203.2	279.0	339.9	362.1
80°	127.5	158.9	227.2	271.6	291.9
82.5°	86.8	118.2	170.0	203.2	214.3
85°	51.7	73.9	109.0	127.5	125.6
87.5°	24.0	31.4	44.3	44.3	42.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)