

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: P311254

Luminaire Tested: **24FCZ2-30-UNV-L82765-S-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: P311254  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-30-UNV-L82765-S-CP250-W2A-U-6500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.250" POLYCARB SHEET  
Light Source: (168) 6500K 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**

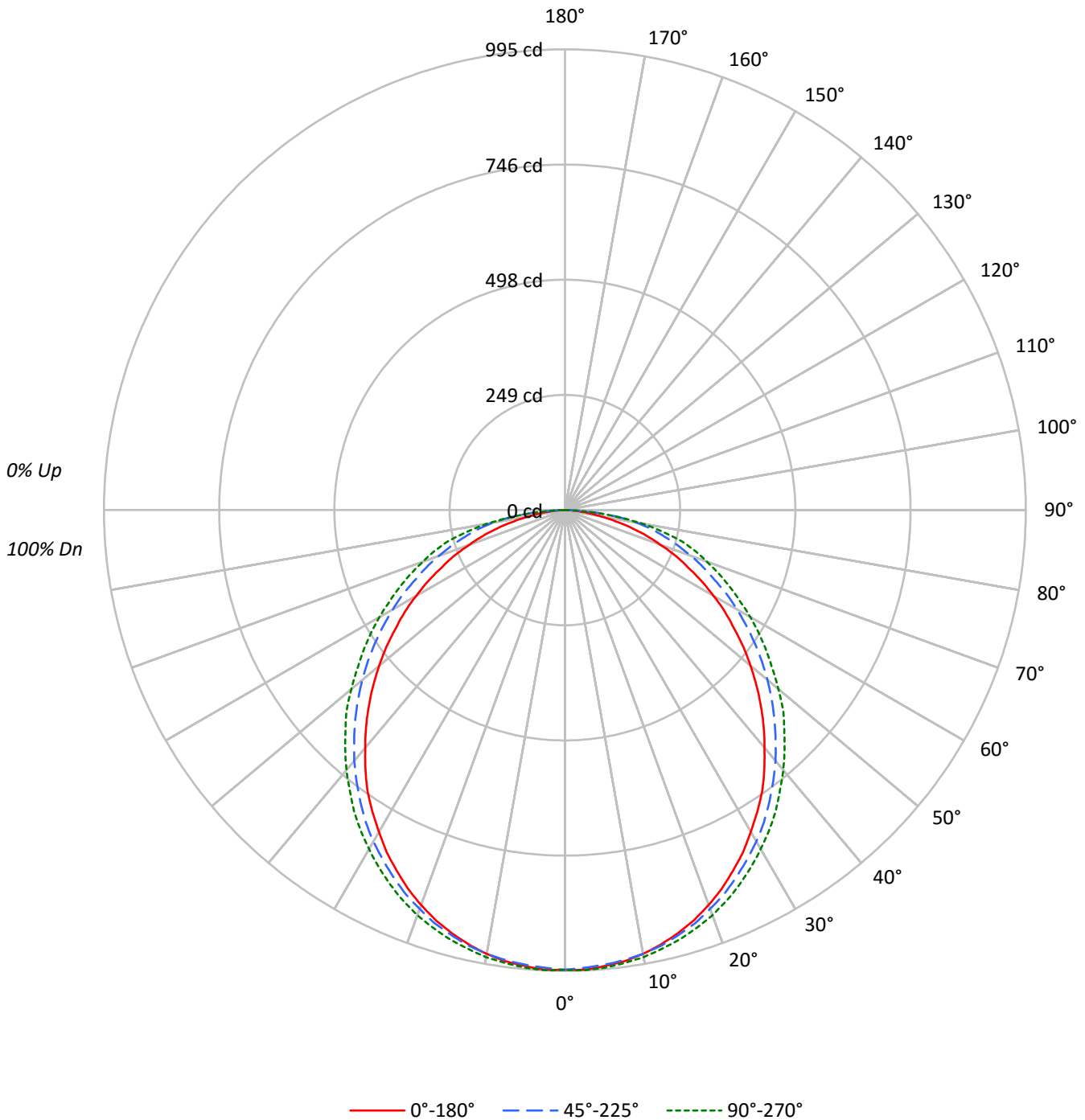
Lumens per Lamp: N/A  
Luminaire Lumens: 2826.0 lumens  
Efficiency: N/A  
Efficacy: 115.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 24.4  
Input Voltage (V): NR  
Input Current (A<sub>in</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	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

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

	0°	45°	90°
0°	1336	1336	1336
5°	1335	1331	1340
10°	1329	1329	1339
15°	1317	1323	1337
20°	1299	1312	1333
25°	1275	1299	1325
30°	1247	1284	1314
35°	1219	1264	1303
40°	1178	1242	1288
45°	1139	1218	1274
50°	1095	1195	1259
55°	1046	1173	1247
60°	998	1155	1244
65°	934	1135	1252
70°	865	1140	1285
75°	775	1162	1358
80°	626	1231	1328
85°	471	1081	1053



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.0	3.3
10°-20°	268.6	9.5
20°-30°	403.7	14.3
30°-40°	480.9	17.0
40°-50°	492.1	17.4
50°-60°	443.1	15.7
60°-70°	348.0	12.3
70°-80°	225.8	8.0
80°-90°	69.8	2.5
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°	766.3	27.1
0°-40°	1247.1	44.1
0°-60°	2182.4	77.2
0°-90°	2826.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2826.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	993	993	993	993	993	
5°	988	990	986	991	992	94
15°	945	948	950	958	960	267
25°	859	866	875	890	892	396
35°	742	751	769	788	794	463
45°	599	613	640	664	670	462
55°	446	466	500	526	531	400
65°	294	316	356	386	393	292
75°	149	178	224	254	261	158
85°	30	57	70	68	68	37
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	992.8	992.8	992.8	992.8	992.8
2.5°	993.7	993.7	989.2	993.7	994.6
5°	988.3	990.1	985.6	991.0	991.9
7.5°	982.9	982.9	980.2	985.6	986.5
10°	973.0	973.9	973.0	979.3	980.2
12.5°	960.5	962.3	963.2	969.5	970.4
15°	945.2	947.9	949.7	957.8	959.6
17.5°	928.2	930.9	935.3	944.3	946.1
20°	907.5	911.1	916.5	928.2	930.9
22.5°	885.1	888.7	897.6	908.4	912.9
25°	859.0	866.2	875.2	889.6	892.3
27.5°	833.0	839.3	851.0	866.2	869.8
30°	802.5	812.4	826.7	842.0	845.6
32.5°	772.9	782.7	799.8	816.0	820.4
35°	742.4	751.3	769.3	788.1	793.5
37.5°	707.3	719.0	738.8	757.6	763.0
40°	670.5	684.9	707.3	727.1	733.4
42.5°	635.5	650.8	673.2	694.8	702.0
45°	598.7	613.1	640.0	664.3	669.6
47.5°	561.0	577.2	605.9	630.1	639.1
50°	523.3	540.4	570.9	596.0	601.4
52.5°	485.6	503.6	535.9	562.8	565.5
55°	446.1	465.9	500.0	526.0	531.4
57.5°	410.2	427.3	464.1	491.0	497.3
60°	370.7	389.6	429.1	454.2	462.3
62.5°	333.0	352.8	394.1	419.2	426.4
65°	293.5	316.0	356.4	386.0	393.2
67.5°	259.4	281.0	324.0	352.8	360.0
70°	219.9	244.2	289.9	319.6	326.7
72.5°	185.8	210.9	256.7	285.5	296.2
75°	149.0	177.7	223.5	254.0	261.2
77.5°	113.1	146.3	193.0	216.3	216.3
80°	80.8	115.8	158.9	169.7	171.4
82.5°	53.0	87.1	117.6	116.7	116.7
85°	30.5	56.6	70.0	68.2	68.2
87.5°	11.7	23.3	25.1	25.1	24.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)