

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: P313801

Luminaire Tested: **24FCZ2-30HE-UNV-L83050-CP125-W2A-U-3500K**

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: P313801  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-30HE-UNV-L83050-CP125-W2A-U-3500K  
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET  
Light Source: (336) 3500K 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: 2742.0 lumens  
Efficiency: N/A  
Efficacy: 130.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

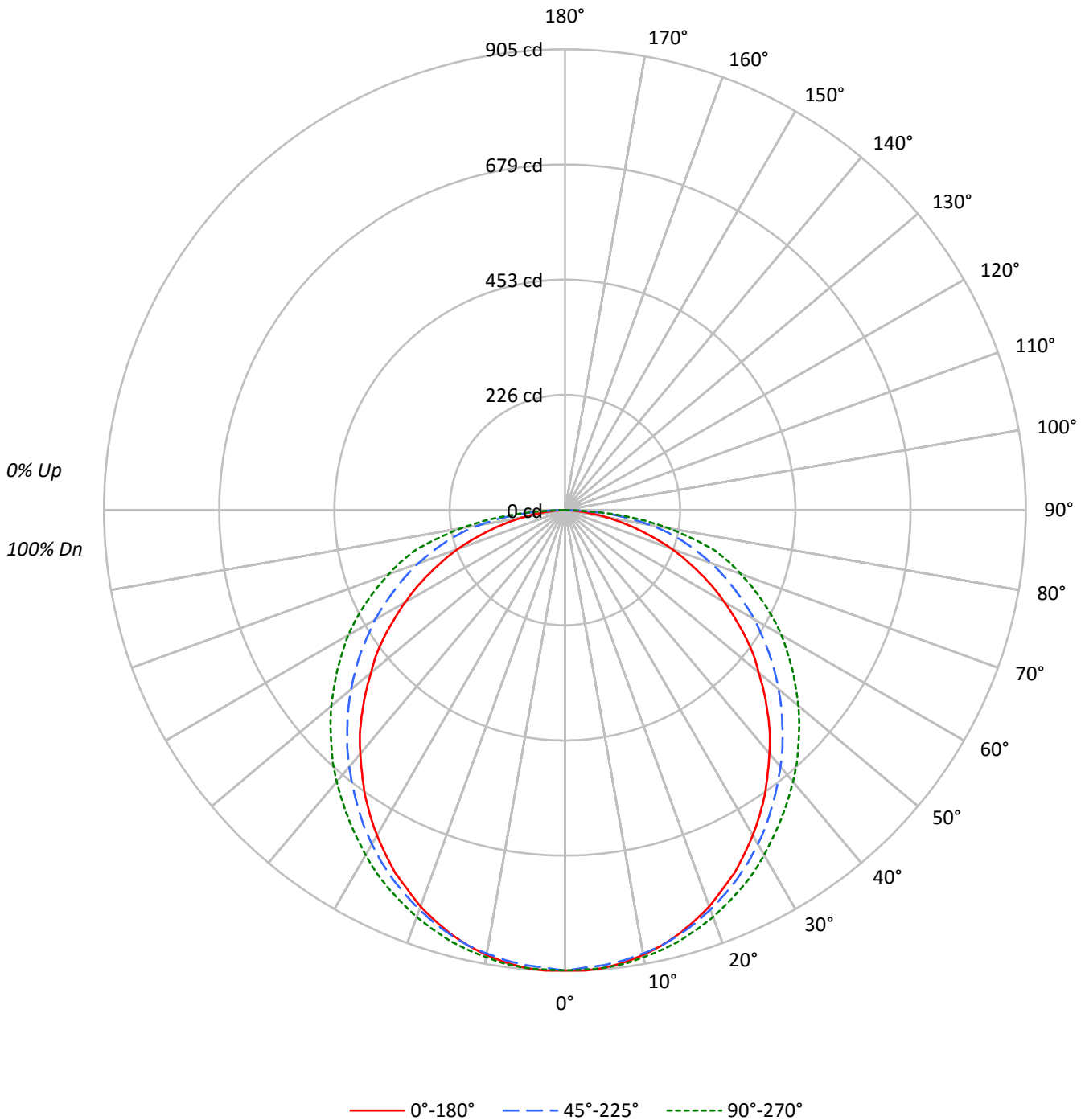
Input Watts (W): 21.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

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

	0°	45°	90°
0°	1217	1217	1217
5°	1219	1212	1219
10°	1212	1208	1218
15°	1201	1204	1219
20°	1187	1196	1218
25°	1168	1187	1217
30°	1146	1177	1216
35°	1124	1166	1216
40°	1098	1157	1224
45°	1071	1149	1234
50°	1040	1146	1253
55°	1014	1148	1278
60°	974	1158	1322
65°	930	1170	1370
70°	880	1206	1446
75°	785	1258	1580
80°	669	1332	1614
85°	477	1320	1545



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.6	3.1
10°-20°	244.7	8.9
20°-30°	369.6	13.5
30°-40°	445.5	16.2
40°-50°	467.7	17.1
50°-60°	437.5	16.0
60°-70°	361.3	13.2
70°-80°	246.2	9.0
80°-90°	84.0	3.1
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°	699.9	25.5
0°-40°	1145.4	41.8
0°-60°	2050.5	74.8
0°-90°	2742.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2742.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	904	904	904	904	904	
5°	902	902	897	902	902	86
15°	862	863	864	873	875	243
25°	787	791	800	815	820	362
35°	684	691	710	733	740	428
45°	563	575	604	637	649	434
55°	432	449	489	530	545	386
65°	292	317	368	414	430	290
75°	151	186	242	288	304	161
85°	31	61	86	96	100	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	904.3	904.3	904.3	904.3	904.3
2.5°	905.2	904.3	899.7	904.3	903.4
5°	902.5	901.6	897.0	902.5	902.5
7.5°	896.1	896.1	891.6	897.9	898.8
10°	887.0	887.0	884.3	891.6	891.6
12.5°	876.1	876.1	876.1	883.4	884.3
15°	862.4	863.3	864.3	873.4	875.2
17.5°	846.1	847.9	850.6	861.5	863.3
20°	828.8	830.6	835.1	847.9	850.6
22.5°	806.9	811.5	817.9	832.4	835.1
25°	786.9	790.6	799.7	815.1	819.7
27.5°	762.4	767.8	779.7	796.0	802.4
30°	737.8	743.3	757.8	776.9	782.4
32.5°	711.4	719.6	735.1	755.1	761.5
35°	684.1	691.4	709.6	733.3	740.5
37.5°	654.1	664.1	684.1	709.6	718.7
40°	625.0	635.9	658.7	685.9	696.9
42.5°	595.9	606.8	632.3	663.2	674.1
45°	563.1	575.0	604.1	636.8	648.6
47.5°	530.4	544.9	576.8	611.3	624.1
50°	496.7	513.1	547.7	584.1	598.6
52.5°	466.7	482.2	518.6	557.7	571.3
55°	432.1	449.4	489.4	529.5	544.9
57.5°	396.6	415.8	458.5	502.2	517.6
60°	362.1	383.0	430.3	474.0	491.3
62.5°	328.4	349.3	398.5	444.0	461.2
65°	292.0	316.6	367.5	413.9	430.3
67.5°	257.5	283.8	337.5	383.0	399.4
70°	223.8	249.3	306.6	351.2	367.5
72.5°	187.4	216.5	273.8	320.2	337.5
75°	151.0	185.6	242.0	287.5	303.9
77.5°	117.4	152.8	209.2	246.5	254.7
80°	86.4	122.8	171.9	198.3	208.3
82.5°	55.5	91.9	131.0	150.1	158.3
85°	30.9	61.0	85.5	96.4	100.1
87.5°	12.7	26.4	34.6	39.1	39.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)