

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: P312223

Luminaire Tested: **14FCZ2-35-UNV-L83050-CA125-W2A-U-4500K**

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: P312223  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 14FCZ2-35-UNV-L83050-CA125-W2A-U-4500K  
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.125" ACRYLIC SHEET  
Light Source: (168) 4500K 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**

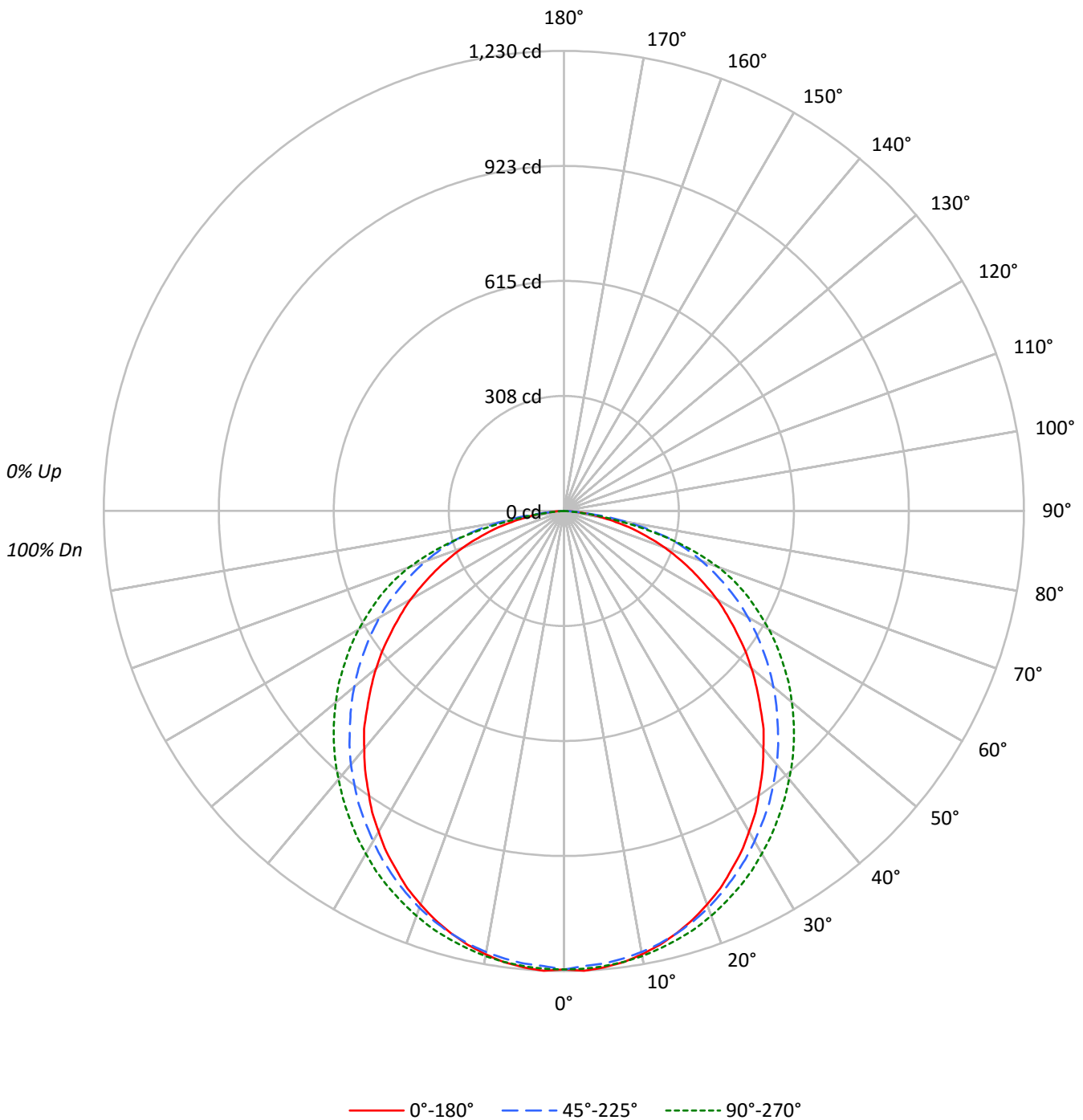
Lumens per Lamp: N/A  
Luminaire Lumens: 3558.0 lumens  
Efficiency: N/A  
Efficacy: 115.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 30.9  
Input Voltage (V): NR  
Input Current (A<sub>in</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	109	104	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	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	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	37	30	25	36	30	25	24

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

	0°	45°	90°
0°	3298	3298	3298
5°	3309	3281	3300
10°	3289	3271	3302
15°	3253	3256	3300
20°	3206	3233	3299
25°	3145	3201	3295
30°	3077	3168	3288
35°	2995	3141	3286
40°	2915	3110	3292
45°	2826	3076	3309
50°	2743	3062	3331
55°	2639	3052	3361
60°	2545	3057	3407
65°	2415	3067	3461
70°	2266	3090	3458
75°	2053	3118	3126
80°	1684	2692	2225
85°	1250	1275	516



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.0	3.3
10°-20°	331.3	9.3
20°-30°	499.1	14.0
30°-40°	598.9	16.8
40°-50°	624.3	17.5
50°-60°	577.9	16.2
60°-70°	466.9	13.1
70°-80°	284.7	8.0
80°-90°	58.8	1.7
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°	946.4	26.6
0°-40°	1545.4	43.4
0°-60°	2747.6	77.2
0°-90°	3558.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3558.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1226	1226	1226	1226	1226	
5°	1225	1222	1215	1223	1222	116
15°	1168	1169	1169	1184	1184	329
25°	1059	1066	1078	1105	1110	488
35°	912	926	956	991	1000	571
45°	743	765	808	854	870	574
55°	562	592	651	701	716	504
65°	379	416	482	530	544	375
75°	198	241	300	305	301	207
85°	40	60	41	23	17	50
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1225.7	1225.7	1225.7	1225.7	1225.7
2.5°	1230.5	1226.5	1217.8	1226.5	1224.9
5°	1224.9	1221.8	1214.6	1223.4	1221.8
7.5°	1217.0	1213.8	1207.5	1217.8	1216.2
10°	1203.5	1201.9	1197.2	1209.1	1208.3
12.5°	1187.7	1186.9	1184.5	1198.0	1197.2
15°	1167.8	1168.6	1168.6	1184.5	1184.5
17.5°	1145.6	1147.2	1150.4	1167.8	1170.2
20°	1119.4	1122.6	1129.0	1148.8	1152.0
22.5°	1092.5	1094.8	1104.4	1128.2	1131.3
25°	1059.1	1065.5	1078.2	1105.2	1109.9
27.5°	1027.4	1033.0	1050.4	1078.2	1086.1
30°	990.1	998.8	1019.5	1049.6	1058.3
32.5°	954.4	963.9	987.7	1022.6	1030.6
35°	911.6	925.9	956.0	990.9	1000.4
37.5°	872.7	886.2	920.3	958.4	969.5
40°	829.9	846.5	885.4	925.9	937.0
42.5°	790.2	806.1	848.1	889.4	904.4
45°	742.6	764.8	808.4	853.7	869.5
47.5°	699.0	721.2	771.1	819.5	833.8
50°	655.3	679.1	731.5	781.5	795.7
52.5°	610.1	635.5	691.8	741.8	758.5
55°	562.5	591.8	650.6	701.3	716.4
57.5°	517.3	547.4	610.1	661.7	676.7
60°	472.8	503.8	568.0	617.2	633.1
62.5°	423.7	460.1	526.8	575.2	587.1
65°	379.2	416.5	481.6	530.0	543.5
67.5°	332.4	372.9	437.9	482.4	495.1
70°	288.0	330.0	392.7	434.0	439.5
72.5°	240.4	283.2	346.7	372.9	372.9
75°	197.5	241.2	299.9	304.7	300.7
77.5°	150.7	199.1	237.2	227.7	218.2
80°	108.7	156.3	173.7	156.3	143.6
82.5°	73.0	113.5	104.7	83.3	73.8
85°	40.5	60.3	41.3	23.0	16.7
87.5°	15.1	13.5	4.0	4.0	4.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)