

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: P309022

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-S-CA125-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: P309022  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22FCZ2-34HE-UNV-L82765-S-CA125-W2A-U-6500K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.125" 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**

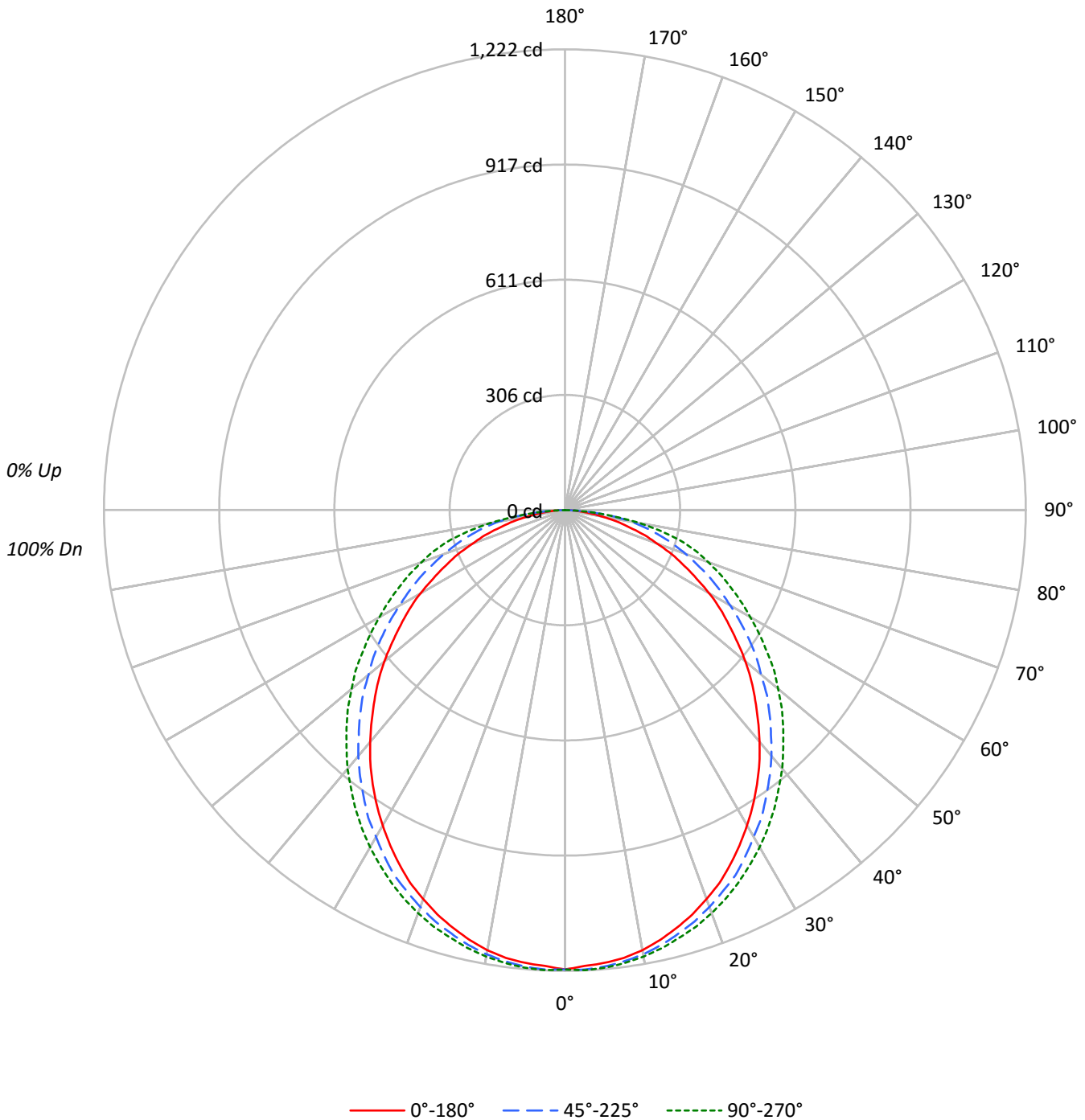
Lumens per Lamp: N/A  
Luminaire Lumens: 3400.0 lumens  
Efficiency: N/A  
Efficacy: 118.1 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 28.8  
Input Voltage (V): NR  
Input Current (A<sub>in</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	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	3278	3278	3278
5°	3257	3283	3291
10°	3238	3268	3286
15°	3195	3239	3270
20°	3144	3207	3257
25°	3081	3175	3236
30°	3002	3110	3209
35°	2918	3054	3179
40°	2820	2993	3149
45°	2717	2922	3115
50°	2617	2843	3088
55°	2493	2791	3066
60°	2382	2723	3056
65°	2222	2707	3091
70°	2047	2684	3183
75°	1848	2721	3348
80°	1598	2802	3147
85°	1321	2350	2350



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	115.2	3.4
10°-20°	327.9	9.6
20°-30°	490.6	14.4
30°-40°	581.0	17.1
40°-50°	592.1	17.4
50°-60°	530.7	15.6
60°-70°	415.5	12.2
70°-80°	267.9	7.9
80°-90°	79.1	2.3
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°	933.7	27.5
0°-40°	1514.7	44.5
0°-60°	2637.5	77.6
0°-90°	3400.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3400.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1218	1218	1218	1218	1218	
5°	1206	1209	1215	1217	1218	114
15°	1147	1153	1163	1172	1174	323
25°	1038	1047	1069	1084	1090	478
35°	888	900	930	958	968	555
45°	714	730	768	808	819	551
55°	531	549	595	636	654	476
65°	349	370	425	466	485	347
75°	178	205	262	306	322	191
85°	43	59	76	76	76	50
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1218.3	1218.3	1218.3	1218.3	1218.3
2.5°	1210.4	1213.6	1219.9	1221.5	1221.5
5°	1205.6	1208.8	1215.2	1216.7	1218.3
7.5°	1197.7	1199.3	1207.2	1210.4	1212.0
10°	1185.0	1188.2	1196.1	1200.9	1202.5
12.5°	1167.6	1172.3	1181.8	1188.2	1189.8
15°	1146.9	1153.3	1162.8	1172.3	1173.9
17.5°	1124.7	1131.1	1143.8	1154.9	1158.0
20°	1097.8	1105.7	1120.0	1132.7	1137.4
22.5°	1070.8	1077.1	1094.6	1110.5	1115.2
25°	1037.5	1047.0	1069.2	1083.5	1089.8
27.5°	1002.6	1013.7	1035.9	1054.9	1061.3
30°	966.1	977.2	1001.0	1024.8	1032.7
32.5°	928.0	940.7	969.3	993.1	1001.0
35°	888.4	899.5	929.6	958.2	967.7
37.5°	847.1	856.6	891.5	921.7	931.2
40°	802.7	815.4	851.9	886.8	896.3
42.5°	758.3	772.6	809.0	847.1	856.6
45°	713.9	729.7	767.8	807.5	818.6
47.5°	671.0	683.7	726.6	764.6	780.5
50°	625.0	637.7	679.0	721.8	737.7
52.5°	577.4	594.9	639.3	680.5	699.6
55°	531.4	548.9	594.9	636.1	653.6
57.5°	488.6	502.9	550.5	593.3	610.7
60°	442.6	455.3	506.0	552.1	567.9
62.5°	393.4	412.5	464.8	507.6	526.7
65°	349.0	369.6	425.1	466.4	485.4
67.5°	307.8	326.8	380.7	425.1	445.8
70°	260.2	285.5	341.1	385.5	404.5
72.5°	222.1	244.3	301.4	345.8	366.4
75°	177.7	204.6	261.7	306.2	322.0
77.5°	141.2	168.2	222.1	257.0	264.9
80°	103.1	130.1	180.8	198.3	203.1
82.5°	69.8	95.2	130.1	134.8	136.4
85°	42.8	58.7	76.1	76.1	76.1
87.5°	20.6	23.8	27.0	25.4	25.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)