

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: P312227

Luminaire Tested: **14FCZ2-35-UNV-L83050-CP125-W2A-U-4000K**

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: P312227  
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-CP125-W2A-U-4000K  
Description: 1'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET  
Light Source: (168) 4000K 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**

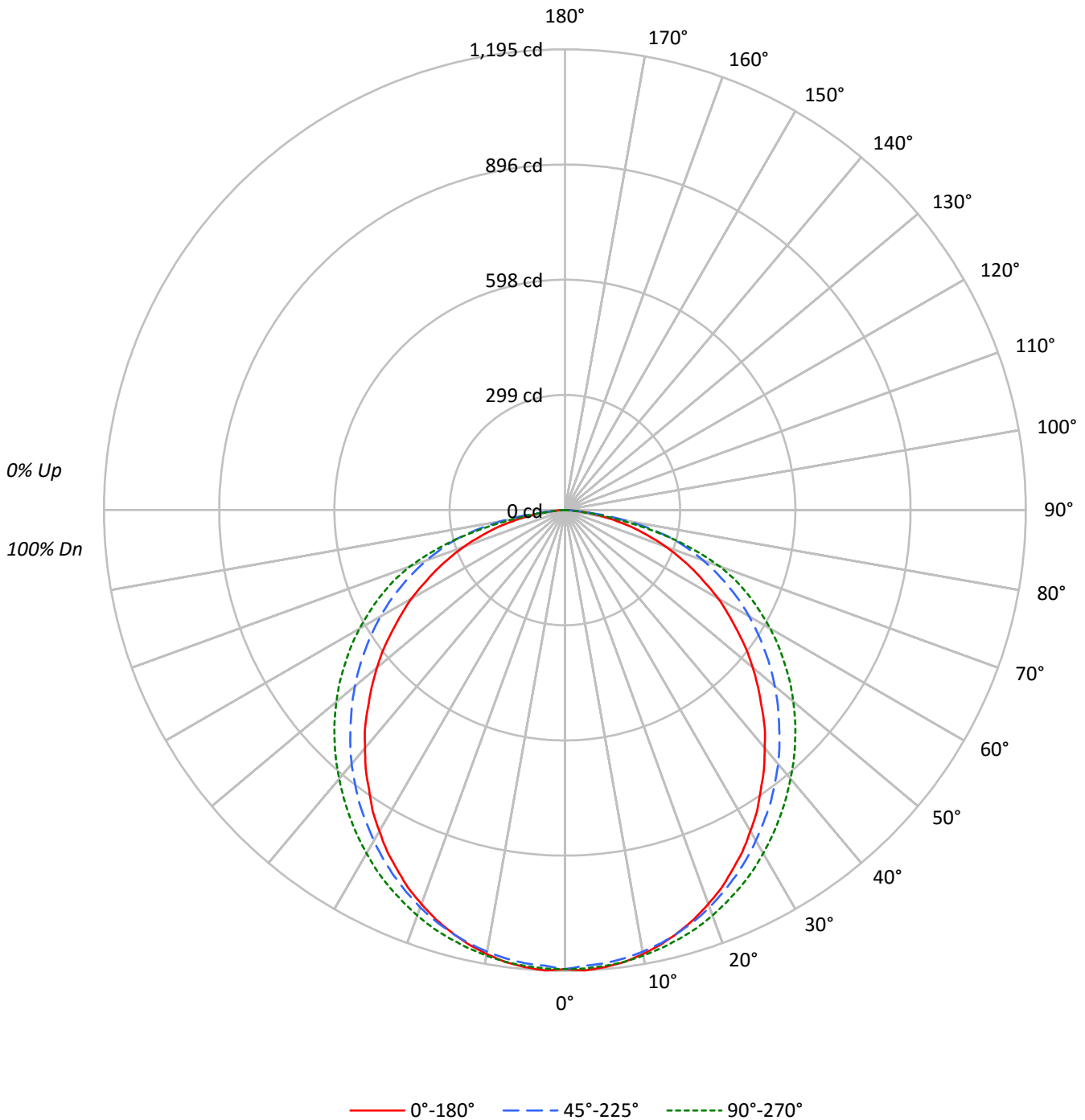
Lumens per Lamp: N/A  
Luminaire Lumens: 3456.0 lumens  
Efficiency: N/A  
Efficacy: 114.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 30.2  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	3204	3204	3204
5°	3214	3187	3206
10°	3194	3178	3207
15°	3160	3162	3205
20°	3114	3140	3204
25°	3055	3110	3201
30°	2988	3077	3194
35°	2909	3051	3192
40°	2832	3021	3197
45°	2745	2989	3214
50°	2665	2974	3236
55°	2563	2965	3265
60°	2472	2970	3310
65°	2346	2979	3361
70°	2201	3002	3359
75°	1995	3029	3037
80°	1636	2616	2162
85°	1213	1238	500



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.7	3.3
10°-20°	321.8	9.3
20°-30°	484.8	14.0
30°-40°	581.8	16.8
40°-50°	606.4	17.5
50°-60°	561.4	16.2
60°-70°	453.6	13.1
70°-80°	276.5	8.0
80°-90°	57.1	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°	919.3	26.6
0°-40°	1501.1	43.4
0°-60°	2668.8	77.2
0°-90°	3456.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3456.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1191	1191	1191	1191	1191	
5°	1190	1187	1180	1188	1187	113
15°	1134	1135	1135	1150	1150	320
25°	1029	1035	1047	1074	1078	474
35°	885	899	929	962	972	555
45°	721	743	785	829	845	558
55°	546	575	632	681	696	490
65°	368	405	468	515	528	364
75°	192	234	291	296	292	202
85°	39	59	40	22	16	48
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1190.6	1190.6	1190.6	1190.6	1190.6
2.5°	1195.2	1191.4	1182.9	1191.4	1189.8
5°	1189.8	1186.8	1179.8	1188.3	1186.8
7.5°	1182.1	1179.0	1172.9	1182.9	1181.4
10°	1169.0	1167.5	1162.9	1174.4	1173.6
12.5°	1153.6	1152.8	1150.5	1163.6	1162.9
15°	1134.3	1135.1	1135.1	1150.5	1150.5
17.5°	1112.8	1114.3	1117.4	1134.3	1136.7
20°	1087.3	1090.4	1096.6	1115.9	1118.9
22.5°	1061.1	1063.5	1072.7	1095.8	1098.9
25°	1028.8	1034.9	1047.3	1073.5	1078.1
27.5°	997.9	1003.3	1020.3	1047.3	1055.0
30°	961.7	970.2	990.2	1019.5	1028.0
32.5°	927.1	936.3	959.4	993.3	1001.0
35°	885.4	899.3	928.6	962.5	971.7
37.5°	847.7	860.8	893.9	930.9	941.7
40°	806.1	822.2	860.0	899.3	910.1
42.5°	767.5	782.9	823.8	863.9	878.5
45°	721.3	742.9	785.3	829.2	844.6
47.5°	678.9	700.5	749.0	796.0	809.9
50°	636.5	659.6	710.5	759.1	772.9
52.5°	592.6	617.3	672.0	720.5	736.7
55°	546.4	574.9	631.9	681.2	695.9
57.5°	502.4	531.7	592.6	642.7	657.3
60°	459.3	489.3	551.8	599.5	615.0
62.5°	411.5	447.0	511.7	558.7	570.3
65°	368.4	404.6	467.8	514.8	527.9
67.5°	322.9	362.2	425.4	468.5	480.9
70°	279.7	320.6	381.5	421.5	426.9
72.5°	233.5	275.1	336.8	362.2	362.2
75°	191.9	234.3	291.3	295.9	292.1
77.5°	146.4	193.4	230.4	221.2	211.9
80°	105.6	151.8	168.8	151.8	139.5
82.5°	70.9	110.2	101.7	80.9	71.7
85°	39.3	58.6	40.1	22.3	16.2
87.5°	14.6	13.1	3.9	3.9	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)