

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: P312171

Luminaire Tested: **14FCZ2-25-UNV-L83050-CA125-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: P312171  
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: 14FCZ2-25-UNV-L83050-CA125-W2A-U-3500K  
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.125" ACRYLIC SHEET  
Light Source: (168) 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**

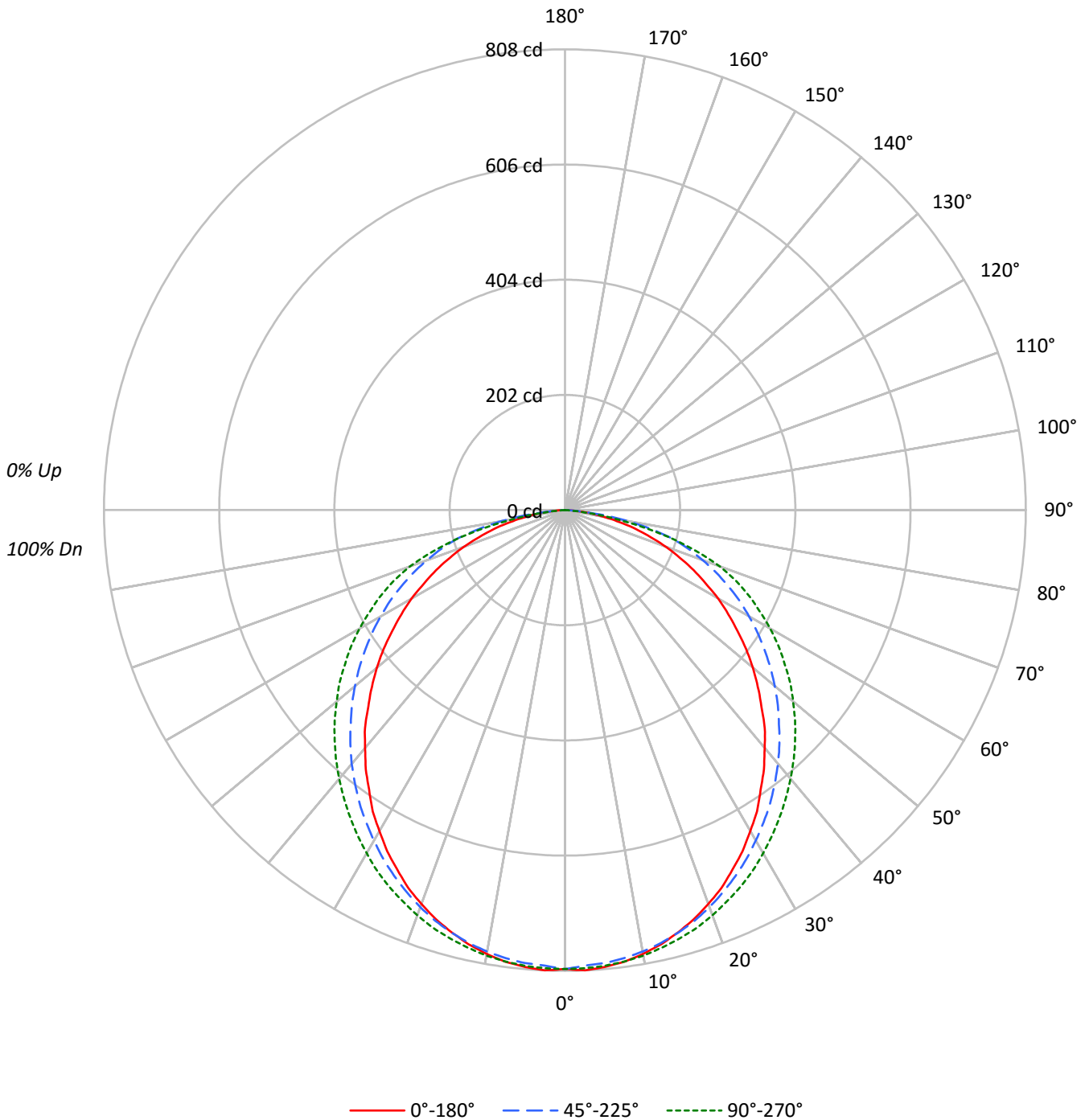
Lumens per Lamp: N/A  
Luminaire Lumens: 2336.0 lumens  
Efficiency: N/A  
Efficacy: 119.2 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 19.6  
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°	2166	2166	2166
5°	2172	2154	2167
10°	2159	2148	2168
15°	2136	2138	2167
20°	2105	2123	2166
25°	2065	2102	2164
30°	2020	2080	2159
35°	1966	2062	2158
40°	1914	2042	2161
45°	1855	2020	2173
50°	1801	2011	2187
55°	1733	2004	2207
60°	1671	2007	2237
65°	1585	2013	2272
70°	1488	2028	2271
75°	1349	2047	2052
80°	1106	1768	1461
85°	821	837	337



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.2	3.3
10°-20°	217.5	9.3
20°-30°	327.7	14.0
30°-40°	393.2	16.8
40°-50°	409.9	17.5
50°-60°	379.4	16.2
60°-70°	306.6	13.1
70°-80°	186.9	8.0
80°-90°	38.6	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°	621.4	26.6
0°-40°	1014.6	43.4
0°-60°	1803.9	77.2
0°-90°	2336.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2336.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	805	805	805	805	805	
5°	804	802	798	803	802	76
15°	767	767	767	778	778	216
25°	695	700	708	726	729	321
35°	598	608	628	651	657	375
45°	488	502	531	560	571	377
55°	369	389	427	460	470	331
65°	249	274	316	348	357	246
75°	130	158	197	200	197	136
85°	27	40	27	15	11	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	804.8	804.8	804.8	804.8	804.8
2.5°	807.9	805.3	799.6	805.3	804.2
5°	804.2	802.2	797.5	803.2	802.2
7.5°	799.0	796.9	792.8	799.6	798.5
10°	790.2	789.1	786.0	793.8	793.3
12.5°	779.8	779.2	777.7	786.5	786.0
15°	766.7	767.3	767.3	777.7	777.7
17.5°	752.2	753.2	755.3	766.7	768.3
20°	735.0	737.0	741.2	754.2	756.3
22.5°	717.3	718.8	725.1	740.7	742.8
25°	695.4	699.5	707.9	725.6	728.7
27.5°	674.5	678.2	689.6	707.9	713.1
30°	650.1	655.8	669.3	689.1	694.9
32.5°	626.6	632.9	648.5	671.4	676.6
35°	598.5	607.9	627.7	650.6	656.8
37.5°	573.0	581.8	604.2	629.2	636.5
40°	544.8	555.8	581.3	607.9	615.2
42.5°	518.8	529.2	556.8	583.9	593.8
45°	487.5	502.1	530.8	560.5	570.9
47.5°	458.9	473.5	506.3	538.1	547.4
50°	430.2	445.9	480.3	513.1	522.4
52.5°	400.6	417.2	454.2	487.0	498.0
55°	369.3	388.6	427.1	460.5	470.4
57.5°	339.6	359.4	400.6	434.4	444.3
60°	310.4	330.8	373.0	405.2	415.7
62.5°	278.1	302.1	345.9	377.6	385.5
65°	249.0	273.5	316.2	347.9	356.8
67.5°	218.2	244.8	287.5	316.7	325.0
70°	189.1	216.7	257.8	284.9	288.6
72.5°	157.8	186.0	227.6	244.8	244.8
75°	129.7	158.3	196.9	200.0	197.4
77.5°	99.0	130.7	155.7	149.5	143.2
80°	71.4	102.6	114.1	102.6	94.3
82.5°	47.9	74.5	68.8	54.7	48.4
85°	26.6	39.6	27.1	15.1	10.9
87.5°	9.9	8.9	2.6	2.6	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)