

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: P312421

Luminaire Tested: **14FCZ2-44-UNV-L83050-S-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: P312421  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 14FCZ2-44-UNV-L83050-S-CA125-W2A-U-3500K  
Description: 1'X4' TROFFER LED MODULE,SMOOTH 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**

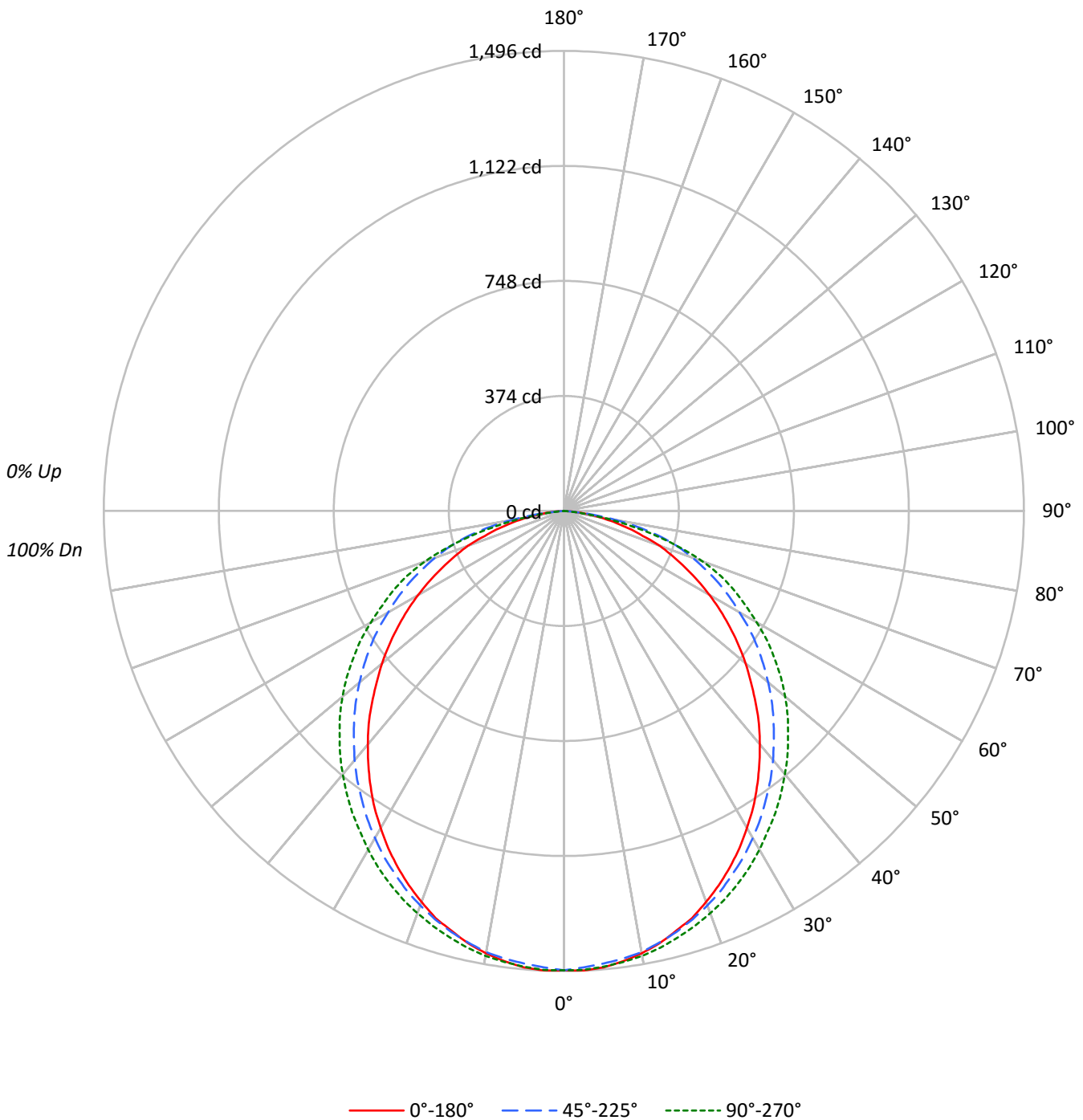
Lumens per Lamp: N/A  
Luminaire Lumens: 4184.0 lumens  
Efficiency: N/A  
Efficacy: 109.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 38.3  
Input Voltage (V): NR  
Input Current (A<sub>in</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	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	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	52	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	4019	4019	4019
5°	4024	3990	4018
10°	3991	3979	4013
15°	3936	3947	3999
20°	3873	3909	3986
25°	3794	3862	3973
30°	3700	3816	3952
35°	3598	3762	3939
40°	3483	3717	3928
45°	3355	3671	3924
50°	3231	3630	3934
55°	3095	3601	3922
60°	2948	3550	3897
65°	2774	3540	3897
70°	2611	3509	3787
75°	2264	3429	3236
80°	1832	2765	2154
85°	1216	960	639



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	141.0	3.4
10°-20°	401.3	9.6
20°-30°	602.0	14.4
30°-40°	718.2	17.2
40°-50°	742.4	17.7
50°-60°	677.8	16.2
60°-70°	533.4	12.7
70°-80°	310.5	7.4
80°-90°	57.2	1.4
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°	1144.4	27.4
0°-40°	1862.6	44.5
0°-60°	3282.8	78.5
0°-90°	4184.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4184.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1494	1494	1494	1494	1494	
5°	1490	1485	1477	1490	1487	141
15°	1413	1415	1417	1436	1436	399
25°	1278	1284	1301	1332	1338	588
35°	1095	1110	1145	1189	1199	685
45°	882	911	965	1019	1031	681
55°	660	695	768	824	836	590
65°	436	481	556	600	612	433
75°	218	270	330	324	311	232
85°	39	56	31	25	21	51
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1493.6	1493.6	1493.6	1493.6	1493.6
2.5°	1495.7	1491.5	1485.3	1495.7	1493.6
5°	1489.5	1485.3	1477.0	1489.5	1487.4
7.5°	1477.0	1472.9	1468.7	1481.2	1479.1
10°	1460.4	1458.4	1456.3	1470.8	1468.7
12.5°	1439.7	1439.7	1437.6	1454.2	1454.2
15°	1412.7	1414.8	1416.9	1435.5	1435.5
17.5°	1387.8	1385.7	1392.0	1412.7	1414.8
20°	1352.6	1356.7	1365.0	1389.9	1392.0
22.5°	1317.3	1321.4	1336.0	1360.9	1367.1
25°	1277.9	1284.1	1300.7	1331.8	1338.0
27.5°	1236.4	1244.7	1267.5	1300.7	1306.9
30°	1190.7	1203.2	1228.1	1265.4	1271.7
32.5°	1145.1	1157.6	1188.7	1226.0	1234.3
35°	1095.3	1109.8	1145.1	1188.7	1199.0
37.5°	1043.5	1062.1	1103.6	1147.2	1159.6
40°	991.6	1012.3	1058.0	1103.6	1118.1
42.5°	939.7	960.5	1010.3	1062.1	1076.7
45°	881.6	910.7	964.6	1018.6	1031.0
47.5°	825.6	856.8	916.9	970.9	987.4
50°	771.7	802.8	867.1	923.1	939.7
52.5°	715.7	748.9	817.3	875.4	889.9
55°	659.7	694.9	767.6	823.6	836.0
57.5°	603.7	641.0	715.7	769.6	784.1
60°	547.7	587.1	659.7	713.6	724.0
62.5°	491.6	533.1	607.8	655.5	665.9
65°	435.6	481.3	556.0	599.5	612.0
67.5°	381.7	427.3	499.9	541.4	551.8
70°	331.9	373.4	446.0	477.1	481.3
72.5°	269.7	321.5	392.1	408.7	398.3
75°	217.8	269.7	329.8	323.6	311.2
77.5°	166.0	217.8	257.2	236.5	219.9
80°	118.2	170.1	178.4	147.3	139.0
82.5°	76.8	118.2	99.6	76.8	62.2
85°	39.4	56.0	31.1	24.9	20.7
87.5°	12.4	8.3	4.1	4.1	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)