

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: P312416

Luminaire Tested: **14FCZ2-44-UNV-L83050-S-CA08-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: P312416  
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-CA08-W2A-U-3500K  
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.08" 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**

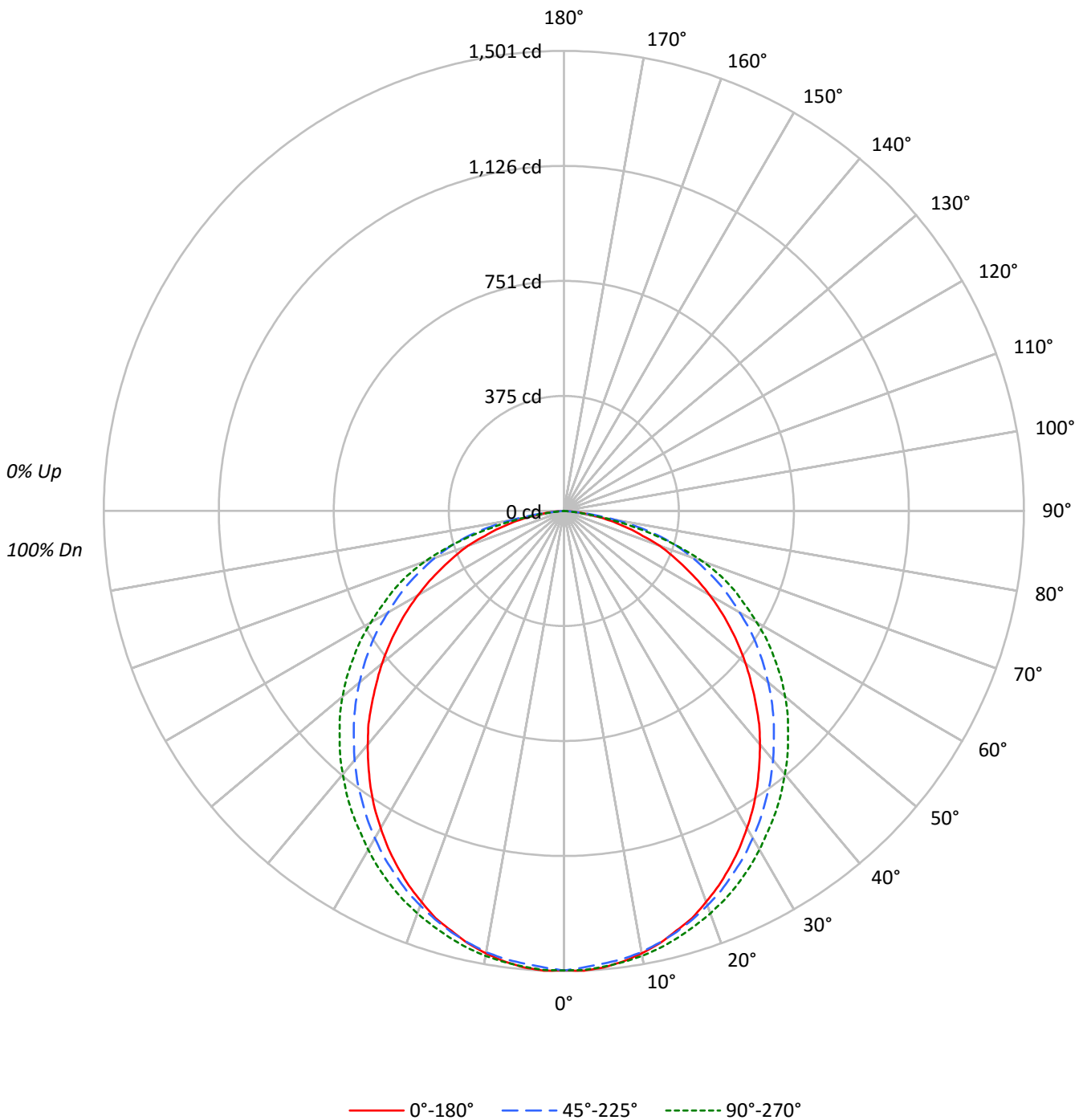
Lumens per Lamp: N/A  
Luminaire Lumens: 4199.0 lumens  
Efficiency: N/A  
Efficacy: 109.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 38.3  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	4034	4034	4034
5°	4038	4004	4032
10°	4005	3994	4028
15°	3950	3961	4014
20°	3887	3923	4001
25°	3808	3876	3987
30°	3713	3830	3966
35°	3611	3775	3953
40°	3496	3730	3942
45°	3367	3684	3938
50°	3242	3643	3948
55°	3106	3614	3936
60°	2958	3563	3911
65°	2784	3553	3911
70°	2621	3522	3800
75°	2273	3441	3247
80°	1839	2774	2162
85°	1223	963	642



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	141.5	3.4
10°-20°	402.8	9.6
20°-30°	604.2	14.4
30°-40°	720.7	17.2
40°-50°	745.1	17.7
50°-60°	680.3	16.2
60°-70°	535.4	12.7
70°-80°	311.6	7.4
80°-90°	57.4	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°	1148.5	27.4
0°-40°	1869.2	44.5
0°-60°	3294.6	78.5
0°-90°	4199.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4199.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1499	1499	1499	1499	1499	
5°	1495	1491	1482	1495	1493	142
15°	1418	1420	1422	1441	1441	400
25°	1282	1289	1305	1337	1343	590
35°	1099	1114	1149	1193	1203	687
45°	885	914	968	1022	1035	683
55°	662	697	770	826	839	592
65°	437	483	558	602	614	434
75°	219	271	331	325	312	232
85°	40	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°	1499.0	1499.0	1499.0	1499.0	1499.0
2.5°	1501.1	1496.9	1490.6	1501.1	1499.0
5°	1494.8	1490.6	1482.3	1494.8	1492.7
7.5°	1482.3	1478.2	1474.0	1486.5	1484.4
10°	1465.7	1463.6	1461.5	1476.1	1474.0
12.5°	1444.8	1444.8	1442.8	1459.4	1459.4
15°	1417.8	1419.9	1421.9	1440.7	1440.7
17.5°	1392.8	1390.7	1397.0	1417.8	1419.9
20°	1357.4	1361.6	1369.9	1394.9	1397.0
22.5°	1322.0	1326.2	1340.7	1365.7	1372.0
25°	1282.5	1288.7	1305.4	1336.6	1342.8
27.5°	1240.8	1249.1	1272.0	1305.4	1311.6
30°	1195.0	1207.5	1232.5	1270.0	1276.2
32.5°	1149.2	1161.7	1192.9	1230.4	1238.7
35°	1099.2	1113.8	1149.2	1192.9	1203.3
37.5°	1047.2	1065.9	1107.6	1151.3	1163.8
40°	995.2	1016.0	1061.8	1107.6	1122.1
42.5°	943.1	963.9	1013.9	1065.9	1080.5
45°	884.8	914.0	968.1	1022.2	1034.7
47.5°	828.6	859.8	920.2	974.3	991.0
50°	774.5	805.7	870.2	926.4	943.1
52.5°	718.3	751.6	820.3	878.6	893.1
55°	662.0	697.4	770.3	826.5	839.0
57.5°	605.8	643.3	718.3	772.4	787.0
60°	549.6	589.2	662.0	716.2	726.6
62.5°	493.4	535.1	610.0	657.9	668.3
65°	437.2	483.0	558.0	601.7	614.2
67.5°	383.1	428.9	501.7	543.4	553.8
70°	333.1	374.7	447.6	478.8	483.0
72.5°	270.6	322.7	393.5	410.1	399.7
75°	218.6	270.6	331.0	324.8	312.3
77.5°	166.6	218.6	258.2	237.3	220.7
80°	118.7	170.7	179.0	147.8	139.5
82.5°	77.0	118.7	99.9	77.0	62.5
85°	39.6	56.2	31.2	25.0	20.8
87.5°	12.5	8.3	4.2	4.2	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)