

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: P312393

Luminaire Tested: **14FCZ2-39-UNV-L83050-S-CA08-W2A-U-4500K**

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: P312393  
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: 14FCZ2-39-UNV-L83050-S-CA08-W2A-U-4500K  
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.08" ACRYLIC SHEET  
Light Source: (168) 4500K 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**

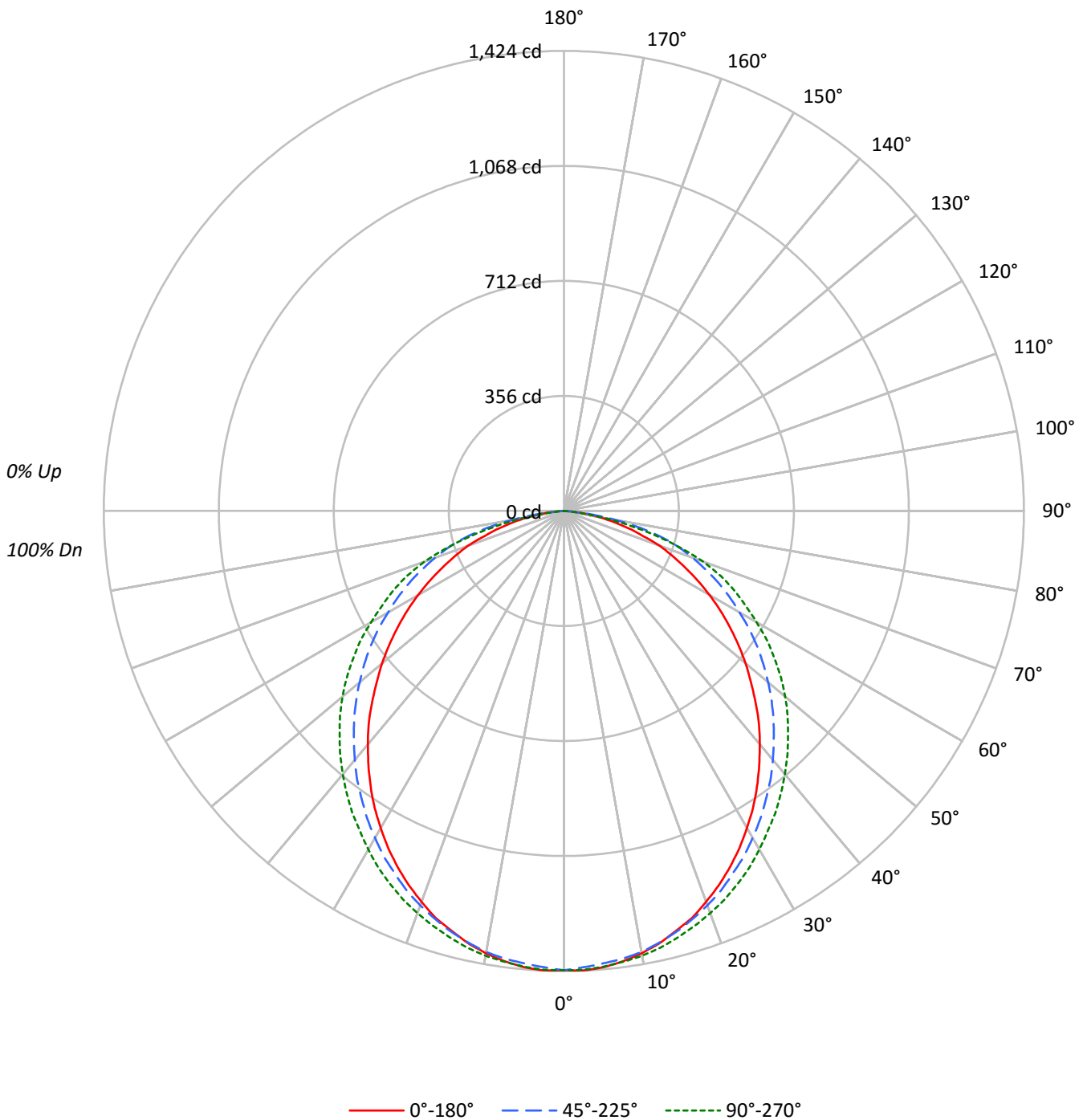
Lumens per Lamp: N/A  
Luminaire Lumens: 3982.0 lumens  
Efficiency: N/A  
Efficacy: 114.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 34.9  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	3825	3825	3825
5°	3829	3797	3824
10°	3798	3787	3819
15°	3746	3757	3806
20°	3686	3720	3794
25°	3611	3676	3781
30°	3521	3632	3761
35°	3424	3580	3749
40°	3315	3537	3738
45°	3193	3494	3734
50°	3075	3455	3744
55°	2945	3427	3733
60°	2805	3379	3708
65°	2640	3369	3708
70°	2485	3340	3603
75°	2155	3264	3079
80°	1743	2631	2050
85°	1158	914	608



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	134.2	3.4
10°-20°	382.0	9.6
20°-30°	573.0	14.4
30°-40°	683.5	17.2
40°-50°	706.6	17.7
50°-60°	645.1	16.2
60°-70°	507.7	12.7
70°-80°	295.5	7.4
80°-90°	54.4	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°	1089.2	27.4
0°-40°	1772.7	44.5
0°-60°	3124.4	78.5
0°-90°	3982.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3982.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1422	1422	1422	1422	1422	
5°	1418	1414	1406	1418	1416	134
15°	1344	1346	1348	1366	1366	379
25°	1216	1222	1238	1268	1273	560
35°	1042	1056	1090	1131	1141	652
45°	839	867	918	969	981	648
55°	628	661	730	784	796	561
65°	415	458	529	571	582	412
75°	207	257	314	308	296	220
85°	38	53	30	24	20	49
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1421.5	1421.5	1421.5	1421.5	1421.5
2.5°	1423.5	1419.5	1413.6	1423.5	1421.5
5°	1417.6	1413.6	1405.7	1417.6	1415.6
7.5°	1405.7	1401.8	1397.8	1409.7	1407.7
10°	1389.9	1387.9	1386.0	1399.8	1397.8
12.5°	1370.2	1370.2	1368.2	1384.0	1384.0
15°	1344.5	1346.5	1348.5	1366.2	1366.2
17.5°	1320.8	1318.8	1324.8	1344.5	1346.5
20°	1287.3	1291.2	1299.1	1322.8	1324.8
22.5°	1253.7	1257.6	1271.5	1295.2	1301.1
25°	1216.2	1222.1	1237.9	1267.5	1273.4
27.5°	1176.7	1184.6	1206.3	1237.9	1243.8
30°	1133.3	1145.1	1168.8	1204.3	1210.3
32.5°	1089.8	1101.7	1131.3	1166.8	1174.7
35°	1042.4	1056.3	1089.8	1131.3	1141.2
37.5°	993.1	1010.9	1050.3	1091.8	1103.6
40°	943.7	963.5	1006.9	1050.3	1064.2
42.5°	894.4	914.1	961.5	1010.9	1024.7
45°	839.1	866.7	918.1	969.4	981.2
47.5°	785.8	815.4	872.6	924.0	939.8
50°	734.4	764.1	825.3	878.6	894.4
52.5°	681.1	712.7	777.9	833.2	847.0
55°	627.8	661.4	730.5	783.8	795.6
57.5°	574.5	610.1	681.1	732.5	746.3
60°	521.2	558.7	627.8	679.2	689.0
62.5°	467.9	507.4	578.5	623.9	633.8
65°	414.6	458.0	529.1	570.6	582.4
67.5°	363.3	406.7	475.8	515.3	525.2
70°	315.9	355.4	424.5	454.1	458.0
72.5°	256.7	306.0	373.1	388.9	379.1
75°	207.3	256.7	313.9	308.0	296.1
77.5°	157.9	207.3	244.8	225.1	209.3
80°	112.5	161.9	169.8	140.2	132.3
82.5°	73.0	112.5	94.8	73.0	59.2
85°	37.5	53.3	29.6	23.7	19.7
87.5°	11.8	7.9	3.9	3.9	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)