

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: P312432

Luminaire Tested: **14FCZ2-44-UNV-L83050-S-CP187-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: P312432  
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-CP187-W2A-U-4000K  
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.187" 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**

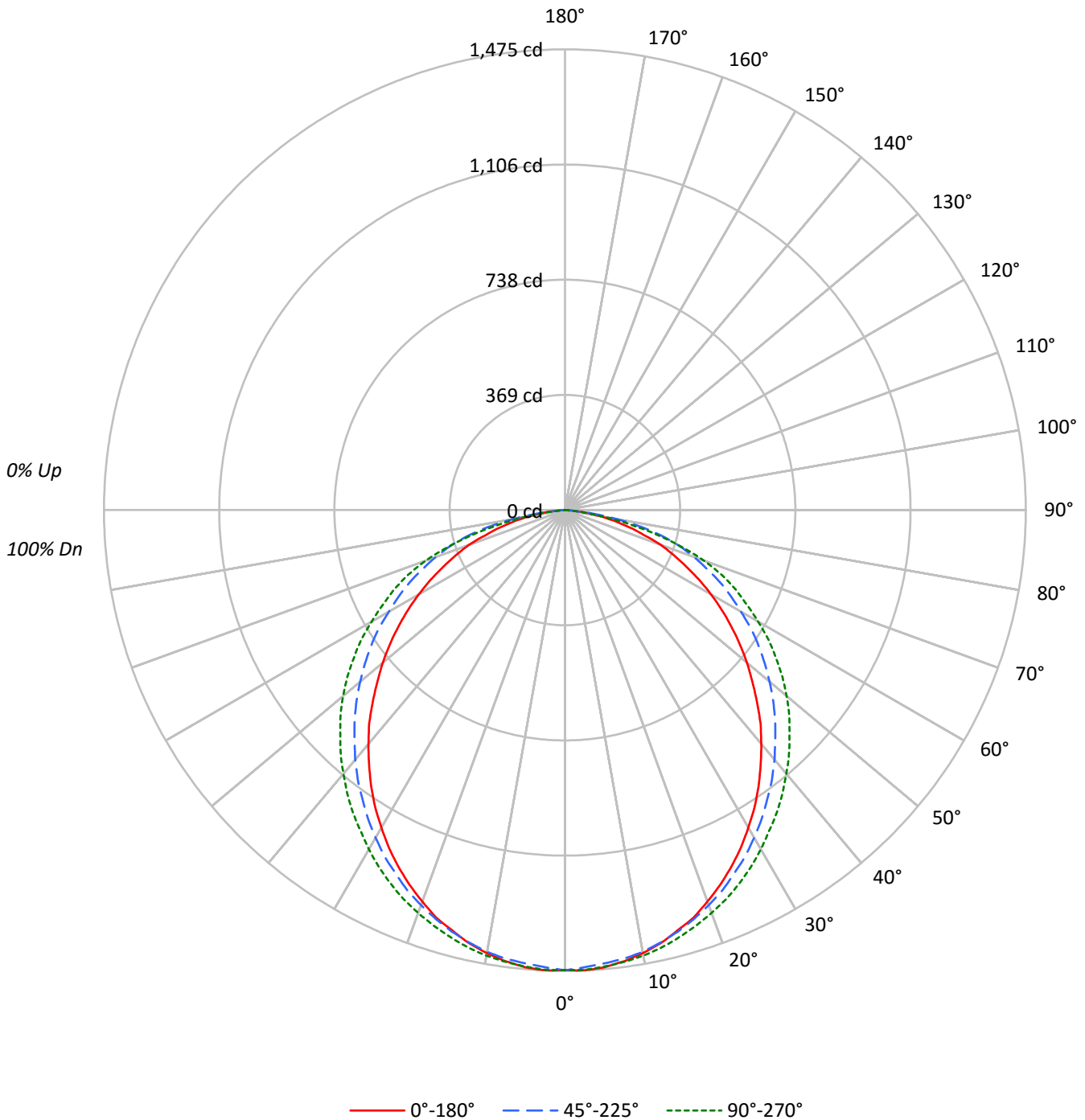
Lumens per Lamp: N/A  
Luminaire Lumens: 4126.0 lumens  
Efficiency: N/A  
Efficacy: 105.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 39.2  
Input Voltage (V): NR  
Input Current (A<sub>in</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



TEST NUMBER: P312432

CATALOG NUMBER: 14FCZ2-44-UNV-L83050-S-CP187-W2A-U-4000K

### Luminous Intensity Polar Plot





TEST NUMBER: P312432

CATALOG NUMBER: 14FCZ2-44-UNV-L83050-S-CP187-W2A-U-4000K

**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°	3964	3964	3964
5°	3968	3934	3962
10°	3935	3924	3958
15°	3881	3892	3944
20°	3820	3855	3931
25°	3742	3809	3918
30°	3649	3763	3897
35°	3548	3710	3884
40°	3435	3665	3873
45°	3309	3620	3869
50°	3186	3580	3880
55°	3052	3551	3868
60°	2907	3501	3843
65°	2735	3491	3843
70°	2575	3460	3734
75°	2233	3382	3191
80°	1807	2726	2125
85°	1201	948	633



TEST NUMBER: P312432

CATALOG NUMBER: 14FCZ2-44-UNV-L83050-S-CP187-W2A-U-4000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	139.1	3.4
10°-20°	395.8	9.6
20°-30°	593.7	14.4
30°-40°	708.2	17.2
40°-50°	732.1	17.7
50°-60°	668.4	16.2
60°-70°	526.0	12.7
70°-80°	306.2	7.4
80°-90°	56.4	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°	1128.5	27.4
0°-40°	1836.7	44.5
0°-60°	3237.3	78.5
0°-90°	4126.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4126.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1473	1473	1473	1473	1473	
5°	1469	1465	1456	1469	1467	139
15°	1393	1395	1397	1416	1416	393
25°	1260	1266	1283	1313	1320	580
35°	1080	1094	1129	1172	1182	675
45°	869	898	951	1004	1017	671
55°	650	685	757	812	824	582
65°	430	475	548	591	604	427
75°	215	266	325	319	307	228
85°	39	55	31	24	20	50
90°	0	0	0	0	0	



TEST NUMBER: P312432

CATALOG NUMBER: 14FCZ2-44-UNV-L83050-S-CP187-W2A-U-4000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1472.9	1472.9	1472.9	1472.9	1472.9
2.5°	1475.0	1470.9	1464.7	1475.0	1472.9
5°	1468.8	1464.7	1456.5	1468.8	1466.8
7.5°	1456.5	1452.5	1448.4	1460.6	1458.6
10°	1440.2	1438.1	1436.1	1450.4	1448.4
12.5°	1419.7	1419.7	1417.7	1434.0	1434.0
15°	1393.1	1395.2	1397.2	1415.6	1415.6
17.5°	1368.6	1366.5	1372.7	1393.1	1395.2
20°	1333.8	1337.9	1346.1	1370.6	1372.7
22.5°	1299.0	1303.1	1317.4	1342.0	1348.1
25°	1260.2	1266.3	1282.7	1313.3	1319.5
27.5°	1219.2	1227.4	1249.9	1282.7	1288.8
30°	1174.2	1186.5	1211.1	1247.9	1254.0
32.5°	1129.2	1141.5	1172.2	1209.0	1217.2
35°	1080.1	1094.5	1129.2	1172.2	1182.4
37.5°	1029.0	1047.4	1088.3	1131.3	1143.6
40°	977.9	998.3	1043.3	1088.3	1102.6
42.5°	926.7	947.2	996.3	1047.4	1061.7
45°	869.4	898.1	951.3	1004.4	1016.7
47.5°	814.2	844.9	904.2	957.4	973.8
50°	761.0	791.7	855.1	910.3	926.7
52.5°	705.8	738.5	806.0	863.3	877.6
55°	650.5	685.3	756.9	812.1	824.4
57.5°	595.3	632.1	705.8	759.0	773.3
60°	540.1	578.9	650.5	703.7	714.0
62.5°	484.8	525.7	599.4	646.4	656.7
65°	429.6	474.6	548.3	591.2	603.5
67.5°	376.4	421.4	493.0	533.9	544.2
70°	327.3	368.2	439.8	470.5	474.6
72.5°	265.9	317.1	386.6	403.0	392.8
75°	214.8	265.9	325.3	319.1	306.9
77.5°	163.7	214.8	253.7	233.2	216.8
80°	116.6	167.7	175.9	145.2	137.1
82.5°	75.7	116.6	98.2	75.7	61.4
85°	38.9	55.2	30.7	24.5	20.5
87.5°	12.3	8.2	4.1	4.1	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)