

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: P312431

Luminaire Tested: **14FCZ2-44-UNV-L83050-S-CP187-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: P312431  
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-3500K  
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.187" POLYCARB 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**

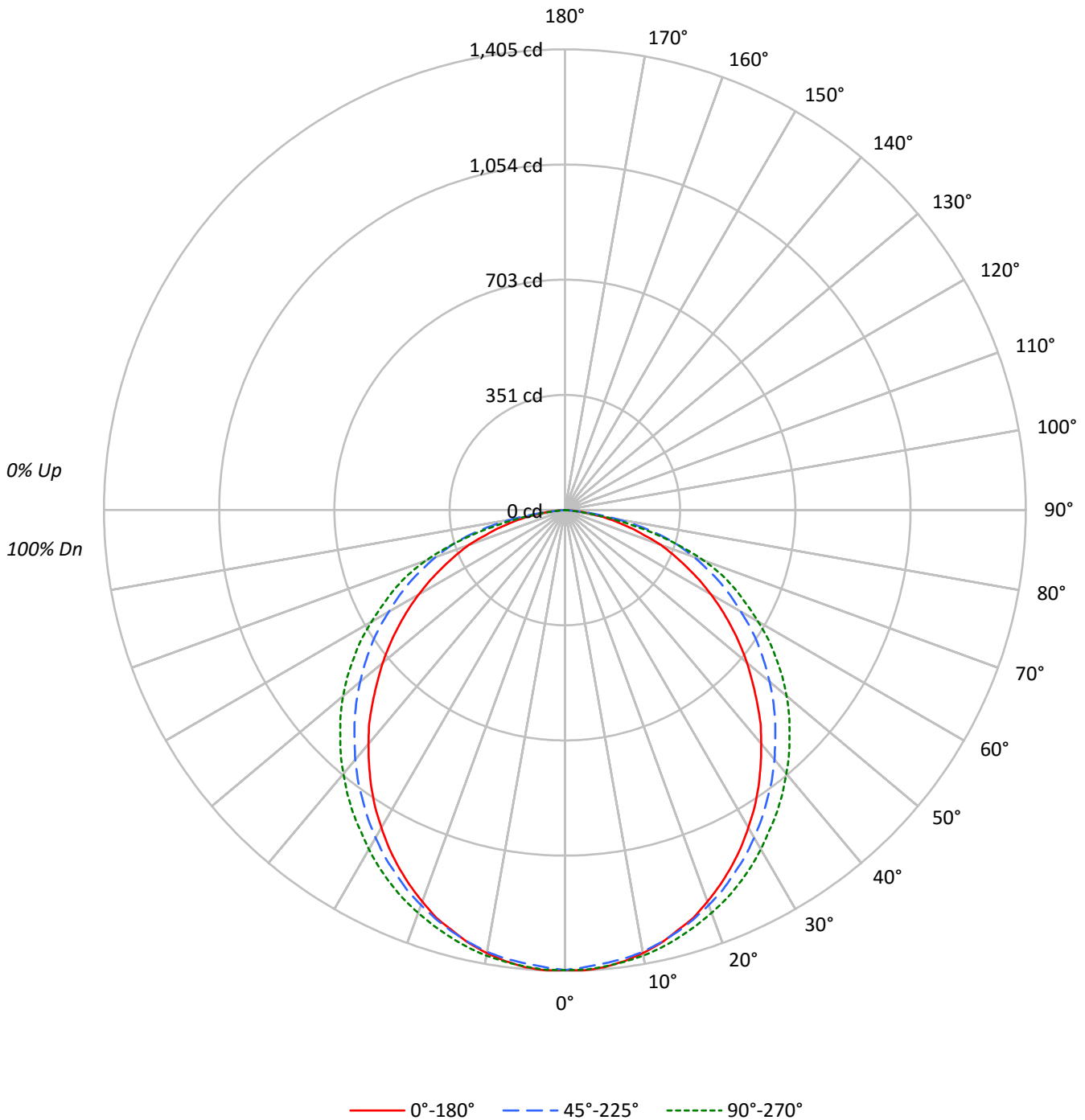
Lumens per Lamp: N/A  
Luminaire Lumens: 3930.0 lumens  
Efficiency: N/A  
Efficacy: 102.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 38.3  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	3775	3775	3775
5°	3779	3748	3774
10°	3748	3738	3770
15°	3697	3707	3757
20°	3638	3672	3744
25°	3564	3627	3732
30°	3475	3584	3712
35°	3380	3533	3700
40°	3272	3491	3690
45°	3151	3448	3685
50°	3035	3410	3695
55°	2907	3383	3684
60°	2768	3335	3660
65°	2606	3325	3660
70°	2453	3296	3557
75°	2127	3221	3039
80°	1722	2597	2024
85°	1142	902	602



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.5	3.4
10°-20°	377.0	9.6
20°-30°	565.5	14.4
30°-40°	674.6	17.2
40°-50°	697.4	17.7
50°-60°	636.7	16.2
60°-70°	501.0	12.7
70°-80°	291.7	7.4
80°-90°	53.7	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°	1074.9	27.4
0°-40°	1749.5	44.5
0°-60°	3083.5	78.5
0°-90°	3930.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3930.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1403	1403	1403	1403	1403	
5°	1399	1395	1387	1399	1397	133
15°	1327	1329	1331	1348	1348	374
25°	1200	1206	1222	1251	1257	553
35°	1029	1042	1076	1116	1126	643
45°	828	855	906	957	968	640
55°	620	653	721	774	785	554
65°	409	452	522	563	575	406
75°	205	253	310	304	292	217
85°	37	53	29	23	20	48
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1402.9	1402.9	1402.9	1402.9	1402.9
2.5°	1404.9	1401.0	1395.2	1404.9	1402.9
5°	1399.0	1395.2	1387.4	1399.0	1397.1
7.5°	1387.4	1383.5	1379.6	1391.3	1389.3
10°	1371.8	1369.8	1367.9	1381.5	1379.6
12.5°	1352.3	1352.3	1350.3	1365.9	1365.9
15°	1327.0	1328.9	1330.8	1348.4	1348.4
17.5°	1303.6	1301.6	1307.5	1327.0	1328.9
20°	1270.4	1274.3	1282.1	1305.5	1307.5
22.5°	1237.3	1241.2	1254.9	1278.2	1284.1
25°	1200.3	1206.1	1221.7	1251.0	1256.8
27.5°	1161.3	1169.1	1190.6	1221.7	1227.6
30°	1118.5	1130.1	1153.5	1188.6	1194.5
32.5°	1075.6	1087.3	1116.5	1151.6	1159.4
35°	1028.8	1042.5	1075.6	1116.5	1126.3
37.5°	980.1	997.6	1036.6	1077.5	1089.2
40°	931.4	950.9	993.8	1036.6	1050.3
42.5°	882.7	902.2	948.9	997.6	1011.3
45°	828.1	855.4	906.1	956.7	968.4
47.5°	775.5	804.7	861.3	911.9	927.5
50°	724.9	754.1	814.5	867.1	882.7
52.5°	672.2	703.4	767.7	822.3	835.9
55°	619.6	652.8	721.0	773.6	785.3
57.5°	567.0	602.1	672.2	722.9	736.5
60°	514.4	551.4	619.6	670.3	680.0
62.5°	461.8	500.8	570.9	615.7	625.5
65°	409.2	452.1	522.2	563.1	574.8
67.5°	358.5	401.4	469.6	508.6	518.3
70°	311.8	350.7	418.9	448.2	452.1
72.5°	253.3	302.0	368.3	383.9	374.1
75°	204.6	253.3	309.8	304.0	292.3
77.5°	155.9	204.6	241.6	222.1	206.5
80°	111.1	159.8	167.6	138.3	130.6
82.5°	72.1	111.1	93.5	72.1	58.5
85°	37.0	52.6	29.2	23.4	19.5
87.5°	11.7	7.8	3.9	3.9	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)