

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: P310596

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-CA125-W2A-U-5700K**

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: P310596  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-35HE-UNV-L82765-CA125-W2A-U-5700K  
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET  
Light Source: (336) 5700K 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**

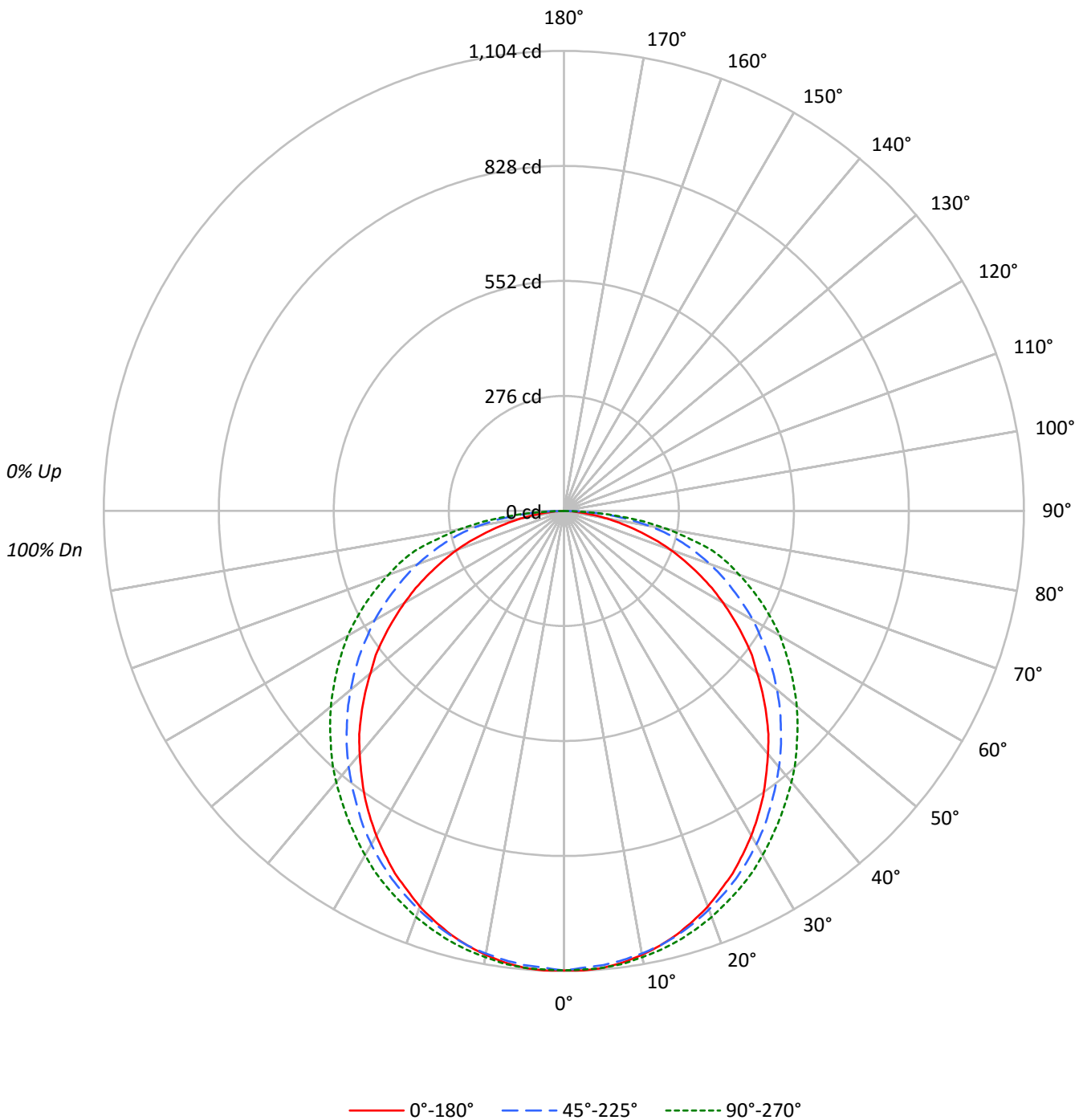
Lumens per Lamp: N/A  
Luminaire Lumens: 3343.0 lumens  
Efficiency: N/A  
Efficacy: 125.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 26.7  
Input Voltage (V): NR  
Input Current (A<sub>in</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	108	103	98	94	105	100	96	92	96	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

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

	0°	45°	90°
0°	1483	1483	1483
5°	1486	1477	1486
10°	1477	1473	1485
15°	1465	1468	1486
20°	1447	1458	1485
25°	1424	1447	1484
30°	1397	1435	1482
35°	1370	1421	1483
40°	1338	1410	1492
45°	1306	1401	1505
50°	1268	1398	1528
55°	1236	1400	1559
60°	1188	1412	1612
65°	1133	1427	1670
70°	1074	1471	1763
75°	957	1534	1926
80°	817	1624	1968
85°	582	1610	1883



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	104.3	3.1
10°-20°	298.3	8.9
20°-30°	450.6	13.5
30°-40°	543.1	16.2
40°-50°	570.2	17.1
50°-60°	533.4	16.0
60°-70°	440.5	13.2
70°-80°	300.2	9.0
80°-90°	102.4	3.1
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°	853.3	25.5
0°-40°	1396.4	41.8
0°-60°	2500.0	74.8
0°-90°	3343.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3343.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1102	1102	1102	1102	1102	
5°	1100	1099	1094	1100	1100	104
15°	1052	1053	1054	1065	1067	296
25°	959	964	975	994	999	441
35°	834	843	865	894	903	521
45°	687	701	736	776	791	530
55°	527	548	597	646	664	470
65°	356	386	448	505	525	353
75°	184	226	295	350	370	196
85°	38	74	104	118	122	47
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1102.5	1102.5	1102.5	1102.5	1102.5
2.5°	1103.6	1102.5	1096.9	1102.5	1101.4
5°	1100.3	1099.2	1093.6	1100.3	1100.3
7.5°	1092.5	1092.5	1087.0	1094.7	1095.8
10°	1081.4	1081.4	1078.1	1087.0	1087.0
12.5°	1068.1	1068.1	1068.1	1077.0	1078.1
15°	1051.5	1052.6	1053.7	1064.8	1067.0
17.5°	1031.5	1033.7	1037.1	1050.4	1052.6
20°	1010.4	1012.7	1018.2	1033.7	1037.1
22.5°	983.8	989.4	997.1	1014.9	1018.2
25°	959.4	963.8	974.9	993.8	999.3
27.5°	929.5	936.1	950.5	970.5	978.3
30°	899.5	906.2	923.9	947.2	953.9
32.5°	867.4	877.3	896.2	920.6	928.4
35°	834.1	843.0	865.1	894.0	902.8
37.5°	797.5	809.7	834.1	865.1	876.2
40°	762.0	775.3	803.0	836.3	849.6
42.5°	726.5	739.8	770.9	808.6	821.9
45°	686.6	701.0	736.5	776.4	790.8
47.5°	646.6	664.4	703.2	745.3	760.9
50°	605.6	625.6	667.7	712.1	729.8
52.5°	569.0	587.8	632.2	679.9	696.5
55°	526.8	547.9	596.7	645.5	664.4
57.5°	483.6	506.9	559.0	612.2	631.1
60°	441.4	467.0	524.6	577.9	598.9
62.5°	400.4	425.9	485.8	541.3	562.3
65°	356.0	386.0	448.1	504.7	524.6
67.5°	313.9	346.1	411.5	467.0	486.9
70°	272.9	303.9	373.8	428.1	448.1
72.5°	228.5	264.0	333.9	390.4	411.5
75°	184.1	226.3	295.0	350.5	370.5
77.5°	143.1	186.3	255.1	300.6	310.6
80°	105.4	149.7	209.6	241.8	254.0
82.5°	67.7	112.0	159.7	183.0	193.0
85°	37.7	74.3	104.3	117.6	122.0
87.5°	15.5	32.2	42.1	47.7	47.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)