

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: P313871

Luminaire Tested: **24FCZ2-35-UNV-L83050-CA125-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: P313871  
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: 24FCZ2-35-UNV-L83050-CA125-W2A-U-3500K  
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" 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**

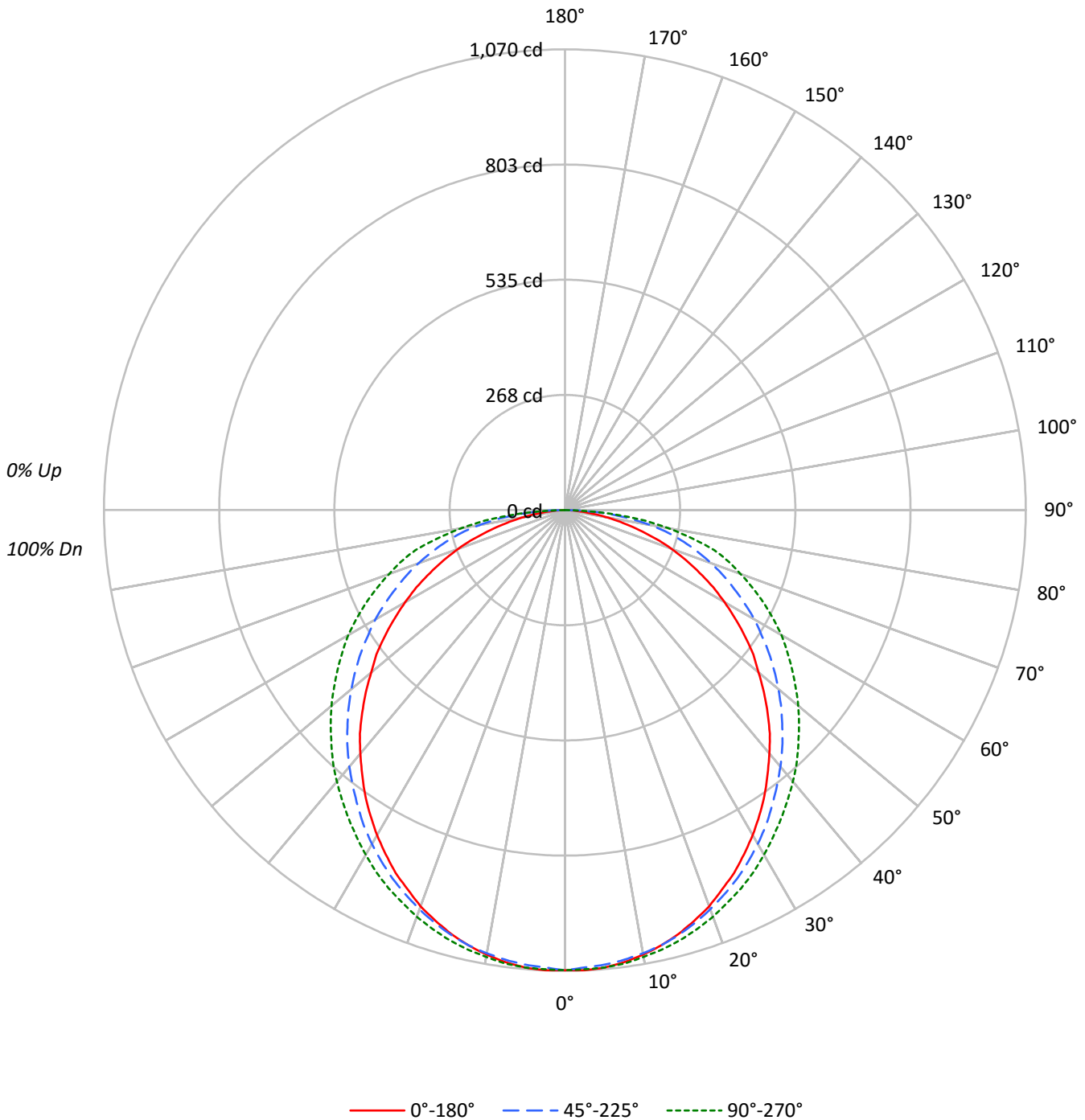
Lumens per Lamp: N/A  
Luminaire Lumens: 3240.0 lumens  
Efficiency: N/A  
Efficacy: 115.7 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 28  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	1438	1438	1438
5°	1440	1432	1440
10°	1432	1428	1439
15°	1420	1422	1440
20°	1402	1413	1439
25°	1381	1403	1438
30°	1354	1391	1436
35°	1328	1377	1437
40°	1297	1367	1446
45°	1266	1358	1459
50°	1229	1355	1481
55°	1198	1357	1510
60°	1151	1368	1562
65°	1099	1383	1619
70°	1040	1425	1709
75°	927	1486	1866
80°	791	1574	1908
85°	563	1559	1825



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.1	3.1
10°-20°	289.2	8.9
20°-30°	436.7	13.5
30°-40°	526.4	16.2
40°-50°	552.6	17.1
50°-60°	517.0	16.0
60°-70°	426.9	13.2
70°-80°	290.9	9.0
80°-90°	99.2	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°	827.0	25.5
0°-40°	1353.4	41.8
0°-60°	2422.9	74.8
0°-90°	3240.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3240.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1068	1068	1068	1068	1068	
5°	1066	1065	1060	1066	1066	101
15°	1019	1020	1021	1032	1034	287
25°	930	934	945	963	969	428
35°	808	817	838	866	875	505
45°	665	679	714	752	766	513
55°	511	531	578	626	644	456
65°	345	374	434	489	508	342
75°	178	219	286	340	359	190
85°	36	72	101	114	118	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1068.5	1068.5	1068.5	1068.5	1068.5
2.5°	1069.6	1068.5	1063.1	1068.5	1067.4
5°	1066.4	1065.3	1059.9	1066.4	1066.4
7.5°	1058.8	1058.8	1053.5	1061.0	1062.1
10°	1048.1	1048.1	1044.9	1053.5	1053.5
12.5°	1035.2	1035.2	1035.2	1043.8	1044.9
15°	1019.1	1020.2	1021.2	1032.0	1034.1
17.5°	999.7	1001.9	1005.1	1018.0	1020.2
20°	979.3	981.5	986.8	1001.9	1005.1
22.5°	953.5	958.9	966.4	983.6	986.8
25°	929.9	934.2	944.9	963.2	968.6
27.5°	900.8	907.3	921.3	940.6	948.1
30°	871.8	878.3	895.5	918.0	924.5
32.5°	840.6	850.3	868.6	892.2	899.8
35°	808.4	817.0	838.5	866.4	875.0
37.5°	772.9	784.7	808.4	838.5	849.2
40°	738.5	751.4	778.3	810.5	823.4
42.5°	704.1	717.0	747.1	783.7	796.6
45°	665.4	679.4	713.8	752.5	766.5
47.5°	626.7	643.9	681.5	722.4	737.4
50°	586.9	606.3	647.1	690.1	707.3
52.5°	551.5	569.7	612.7	659.0	675.1
55°	510.6	531.0	578.3	625.6	643.9
57.5°	468.7	491.3	541.8	593.4	611.7
60°	427.8	452.6	508.5	560.1	580.5
62.5°	388.1	412.8	470.8	524.6	545.0
65°	345.1	374.1	434.3	489.1	508.5
67.5°	304.2	335.4	398.8	452.6	471.9
70°	264.4	294.5	362.3	414.9	434.3
72.5°	221.4	255.8	323.6	378.4	398.8
75°	178.4	219.3	285.9	339.7	359.0
77.5°	138.7	180.6	247.2	291.3	301.0
80°	102.1	145.1	203.2	234.3	246.2
82.5°	65.6	108.6	154.8	177.4	187.0
85°	36.5	72.0	101.0	113.9	118.2
87.5°	15.0	31.2	40.8	46.2	46.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)