

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: P314295

Luminaire Tested: **24FCZ2-40-UNV-L83050-S-CA125-W2A-U-3000K**

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: P314295  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-40-UNV-L83050-S-CA125-W2A-U-3000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET  
Light Source: (168) 3000K 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**

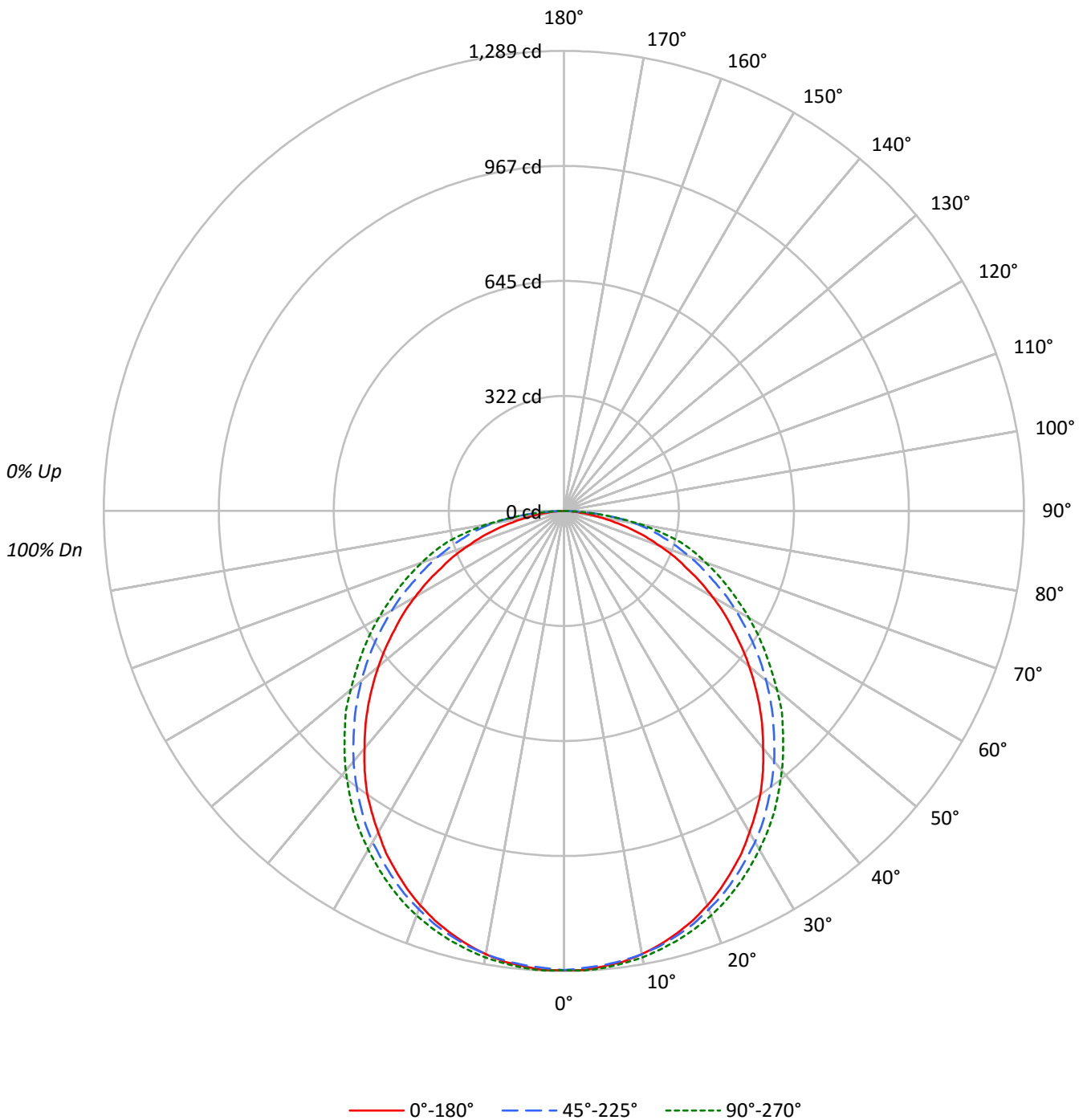
Lumens per Lamp: N/A  
Luminaire Lumens: 3662.0 lumens  
Efficiency: N/A  
Efficacy: 112.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 32.6  
Input Voltage (V): NR  
Input Current (A<sub>in</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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

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

	0°	45°	90°
0°	1731	1731	1731
5°	1730	1725	1736
10°	1723	1723	1735
15°	1706	1714	1732
20°	1684	1700	1727
25°	1653	1684	1716
30°	1616	1664	1702
35°	1580	1637	1689
40°	1526	1610	1669
45°	1476	1578	1651
50°	1419	1549	1631
55°	1356	1520	1615
60°	1293	1496	1612
65°	1211	1470	1622
70°	1121	1478	1666
75°	1004	1506	1760
80°	811	1595	1722
85°	610	1400	1365



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	121.8	3.3
10°-20°	348.0	9.5
20°-30°	523.1	14.3
30°-40°	623.1	17.0
40°-50°	637.8	17.4
50°-60°	574.2	15.7
60°-70°	450.9	12.3
70°-80°	292.6	8.0
80°-90°	90.5	2.5
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°	992.9	27.1
0°-40°	1616.1	44.1
0°-60°	2828.0	77.2
0°-90°	3662.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3662.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1286	1286	1286	1286	1286	
5°	1281	1283	1277	1284	1285	122
15°	1225	1228	1231	1241	1243	345
25°	1113	1122	1134	1153	1156	513
35°	962	974	997	1021	1028	600
45°	776	794	829	861	868	598
55°	578	604	648	682	689	518
65°	380	409	462	500	510	379
75°	193	230	290	329	338	204
85°	40	73	91	88	88	48
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1286.5	1286.5	1286.5	1286.5	1286.5
2.5°	1287.6	1287.6	1281.8	1287.6	1288.8
5°	1280.7	1283.0	1277.2	1284.2	1285.3
7.5°	1273.7	1273.7	1270.2	1277.2	1278.3
10°	1260.9	1262.1	1260.9	1269.0	1270.2
12.5°	1244.6	1246.9	1248.1	1256.2	1257.4
15°	1224.8	1228.3	1230.7	1241.1	1243.4
17.5°	1202.7	1206.2	1212.0	1223.7	1226.0
20°	1176.0	1180.6	1187.6	1202.7	1206.2
22.5°	1146.9	1151.6	1163.2	1177.1	1183.0
25°	1113.2	1122.5	1134.1	1152.7	1156.2
27.5°	1079.4	1087.6	1102.7	1122.5	1127.1
30°	1039.9	1052.7	1071.3	1091.1	1095.7
32.5°	1001.5	1014.3	1036.4	1057.3	1063.2
35°	962.0	973.6	996.9	1021.3	1028.3
37.5°	916.6	931.7	957.3	981.7	988.7
40°	868.9	887.5	916.6	942.2	950.3
42.5°	823.5	843.3	872.4	900.3	909.6
45°	775.8	794.5	829.4	860.8	867.7
47.5°	727.0	747.9	785.2	816.6	828.2
50°	678.1	700.2	739.8	772.4	779.3
52.5°	629.3	652.5	694.4	729.3	732.8
55°	578.1	603.7	647.9	681.6	688.6
57.5°	531.6	553.7	601.4	636.3	644.4
60°	480.4	504.8	556.0	588.6	599.0
62.5°	431.5	457.1	510.6	543.2	552.5
65°	380.4	409.4	461.8	500.2	509.5
67.5°	336.2	364.1	419.9	457.1	466.4
70°	285.0	316.4	375.7	414.1	423.4
72.5°	240.8	273.3	332.7	369.9	383.9
75°	193.1	230.3	289.6	329.2	338.5
77.5°	146.6	189.6	250.1	280.3	280.3
80°	104.7	150.1	205.9	219.8	222.2
82.5°	68.6	112.8	152.4	151.2	151.2
85°	39.5	73.3	90.7	88.4	88.4
87.5°	15.1	30.2	32.6	32.6	31.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)