

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: P313900

Luminaire Tested: **24FCZ2-40HE-UNV-L83050-CP125-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: P313900  
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: 24FCZ2-40HE-UNV-L83050-CP125-W2A-U-3000K  
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET  
Light Source: (336) 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**

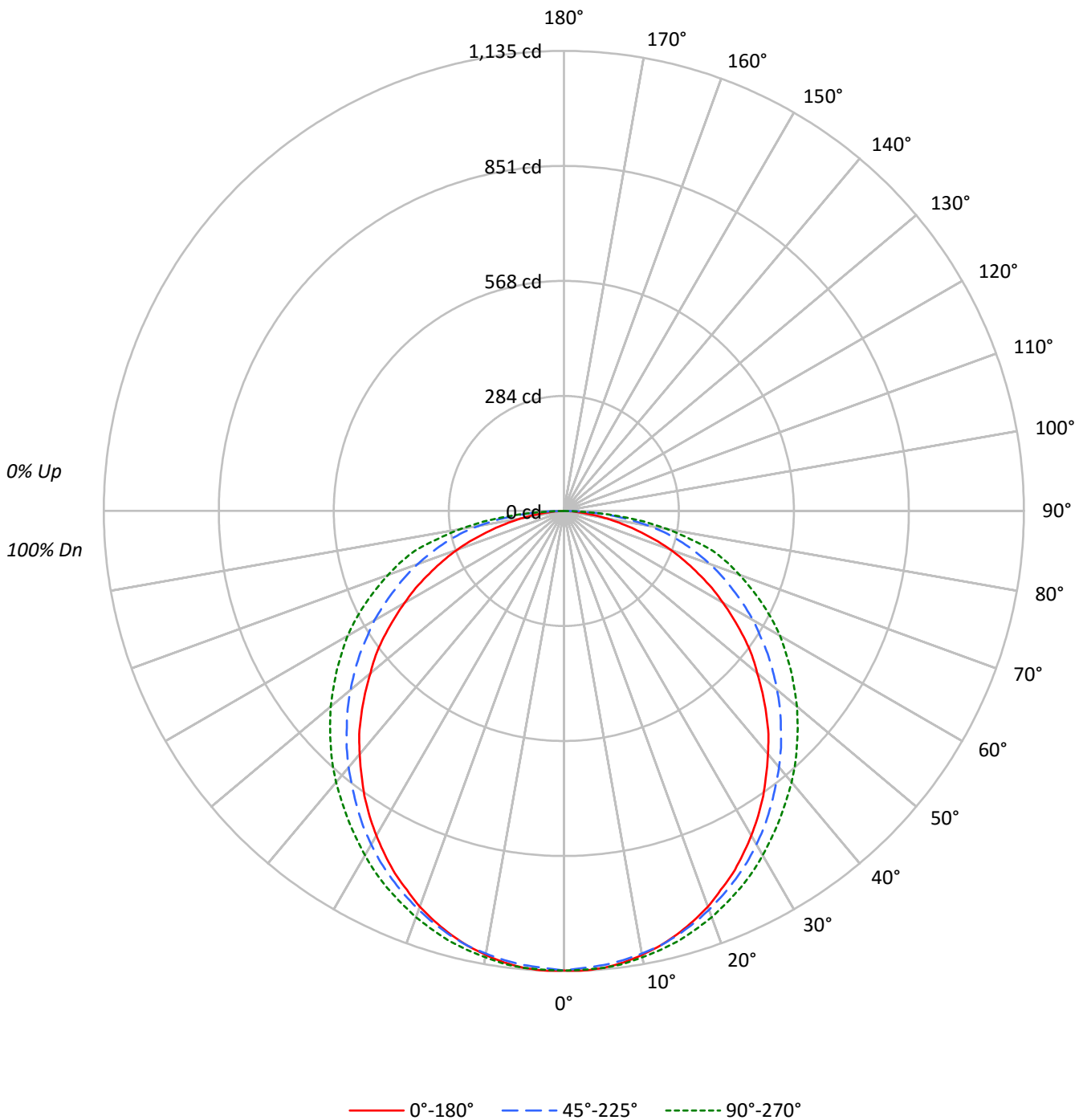
Lumens per Lamp: N/A  
Luminaire Lumens: 3438.0 lumens  
Efficiency: N/A  
Efficacy: 113.5 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 30.3  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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°	1526	1526	1526
5°	1528	1519	1528
10°	1519	1515	1527
15°	1506	1509	1528
20°	1488	1499	1527
25°	1465	1488	1526
30°	1437	1476	1524
35°	1409	1461	1525
40°	1376	1450	1535
45°	1344	1441	1548
50°	1304	1437	1571
55°	1271	1440	1603
60°	1222	1452	1658
65°	1166	1467	1718
70°	1104	1512	1813
75°	985	1577	1981
80°	840	1671	2024
85°	599	1655	1937



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.3	3.1
10°-20°	306.8	8.9
20°-30°	463.4	13.5
30°-40°	558.5	16.2
40°-50°	586.4	17.1
50°-60°	548.6	16.0
60°-70°	453.0	13.2
70°-80°	308.7	9.0
80°-90°	105.3	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°	877.5	25.5
0°-40°	1436.1	41.8
0°-60°	2571.0	74.8
0°-90°	3438.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3438.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1134	1134	1134	1134	1134	
5°	1132	1130	1125	1132	1132	107
15°	1081	1082	1084	1095	1097	305
25°	987	991	1003	1022	1028	454
35°	858	867	890	919	928	536
45°	706	721	757	798	813	545
55°	542	564	614	664	683	484
65°	366	397	461	519	540	363
75°	189	233	303	360	381	202
85°	39	76	107	121	126	49
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1133.8	1133.8	1133.8	1133.8	1133.8
2.5°	1135.0	1133.8	1128.1	1133.8	1132.7
5°	1131.5	1130.4	1124.7	1131.5	1131.5
7.5°	1123.6	1123.6	1117.9	1125.8	1127.0
10°	1112.1	1112.1	1108.7	1117.9	1117.9
12.5°	1098.5	1098.5	1098.5	1107.6	1108.7
15°	1081.4	1082.5	1083.6	1095.0	1097.3
17.5°	1060.8	1063.1	1066.5	1080.2	1082.5
20°	1039.1	1041.4	1047.1	1063.1	1066.5
22.5°	1011.8	1017.5	1025.5	1043.7	1047.1
25°	986.7	991.2	1002.6	1022.0	1027.7
27.5°	955.9	962.7	977.6	998.1	1006.1
30°	925.1	931.9	950.2	974.1	981.0
32.5°	892.0	902.3	921.7	946.8	954.7
35°	857.8	866.9	889.7	919.4	928.5
37.5°	820.1	832.7	857.8	889.7	901.1
40°	783.6	797.3	825.8	860.1	873.8
42.5°	747.1	760.8	792.8	831.5	845.2
45°	706.1	720.9	757.4	798.5	813.3
47.5°	665.0	683.3	723.2	766.5	782.5
50°	622.8	643.3	686.7	732.3	750.6
52.5°	585.2	604.6	650.2	699.2	716.3
55°	541.8	563.5	613.7	663.9	683.3
57.5°	497.3	521.3	574.9	629.6	649.0
60°	454.0	480.2	539.5	594.3	616.0
62.5°	411.8	438.0	499.6	556.6	578.3
65°	366.2	397.0	460.8	519.0	539.5
67.5°	322.8	355.9	423.2	480.2	500.8
70°	280.6	312.5	384.4	440.3	460.8
72.5°	235.0	271.5	343.3	401.5	423.2
75°	189.4	232.7	303.4	360.5	381.0
77.5°	147.1	191.6	262.4	309.1	319.4
80°	108.4	154.0	215.6	248.7	261.2
82.5°	69.6	115.2	164.3	188.2	198.5
85°	38.8	76.4	107.2	120.9	125.5
87.5°	16.0	33.1	43.3	49.0	49.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)