

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: P314296

Luminaire Tested: **24FCZ2-40-UNV-L83050-S-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: P314296
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-3500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH 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: 3875.0 lumens
Efficiency: N/A
Efficacy: 118.5 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

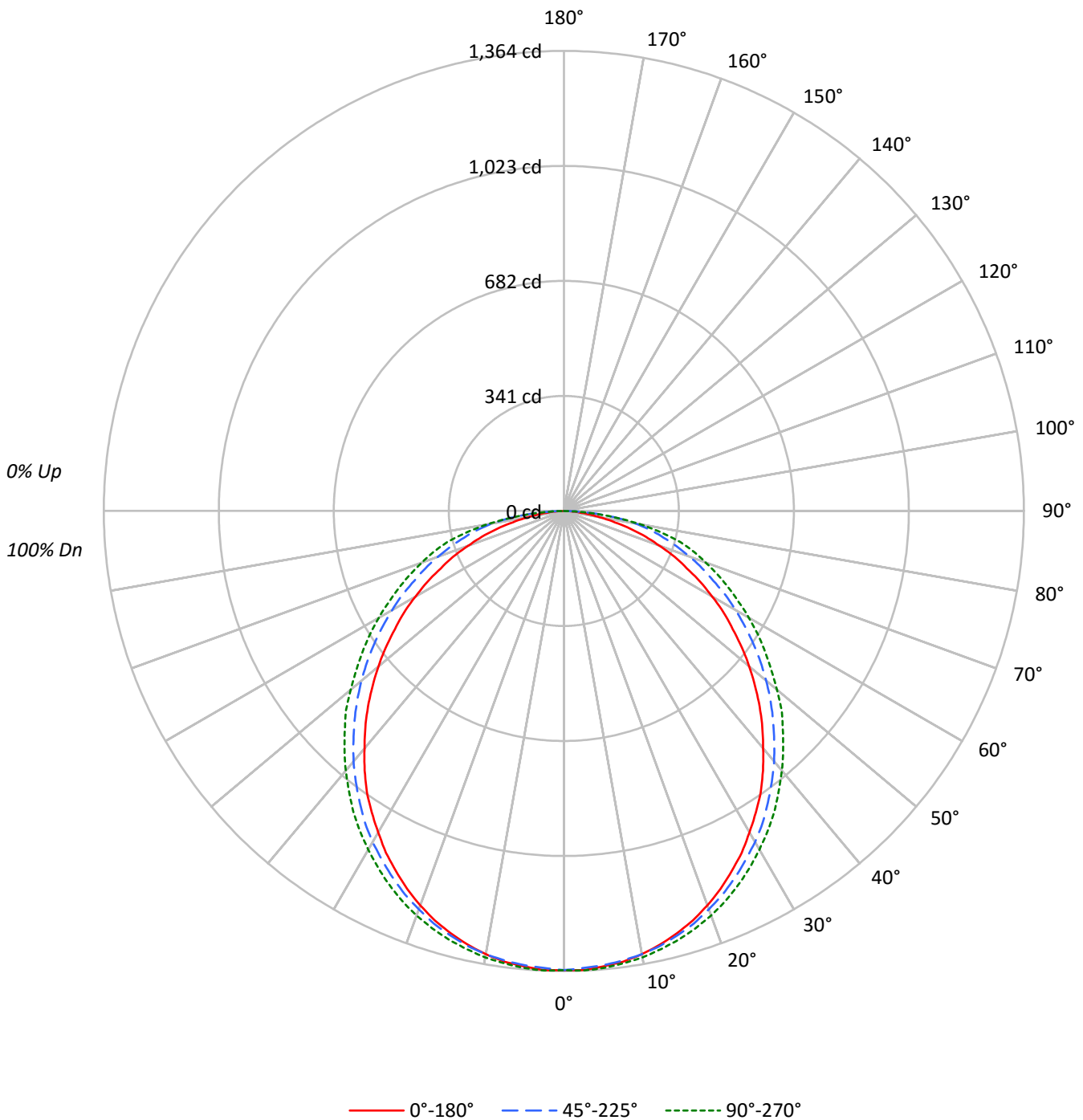
Input Watts (W): 32.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1832	1832	1832
5°	1830	1825	1837
10°	1823	1823	1836
15°	1805	1814	1833
20°	1782	1799	1828
25°	1749	1782	1816
30°	1710	1761	1801
35°	1672	1733	1787
40°	1615	1704	1766
45°	1562	1670	1747
50°	1502	1639	1726
55°	1435	1608	1709
60°	1368	1583	1706
65°	1281	1556	1716
70°	1186	1564	1762
75°	1062	1593	1862
80°	859	1688	1822
85°	645	1482	1443



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.9	3.3
10°-20°	368.2	9.5
20°-30°	553.6	14.3
30°-40°	659.4	17.0
40°-50°	674.8	17.4
50°-60°	607.6	15.7
60°-70°	477.1	12.3
70°-80°	309.7	8.0
80°-90°	95.8	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°	1050.7	27.1
0°-40°	1710.0	44.1
0°-60°	2992.4	77.2
0°-90°	3875.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3875.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1361	1361	1361	1361	1361	
5°	1355	1358	1352	1359	1360	129
15°	1296	1300	1302	1313	1316	365
25°	1178	1188	1200	1220	1224	543
35°	1018	1030	1055	1081	1088	635
45°	821	841	878	911	918	633
55°	612	639	686	721	729	548
65°	402	433	489	529	539	401
75°	204	244	306	348	358	216
85°	42	78	96	94	94	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1361.3	1361.3	1361.3	1361.3	1361.3
2.5°	1362.5	1362.5	1356.4	1362.5	1363.8
5°	1355.2	1357.6	1351.5	1358.9	1360.1
7.5°	1347.8	1347.8	1344.1	1351.5	1352.7
10°	1334.2	1335.5	1334.2	1342.9	1344.1
12.5°	1317.0	1319.5	1320.7	1329.3	1330.5
15°	1296.1	1299.8	1302.2	1313.3	1315.8
17.5°	1272.7	1276.4	1282.5	1294.8	1297.3
20°	1244.4	1249.3	1256.7	1272.7	1276.4
22.5°	1213.6	1218.5	1230.8	1245.6	1251.8
25°	1177.9	1187.8	1200.1	1219.8	1223.5
27.5°	1142.2	1150.8	1166.8	1187.8	1192.7
30°	1100.4	1113.9	1133.6	1154.5	1159.5
32.5°	1059.8	1073.3	1096.7	1118.8	1125.0
35°	1017.9	1030.2	1054.8	1080.7	1088.1
37.5°	969.9	985.9	1013.0	1038.8	1046.2
40°	919.4	939.1	969.9	997.0	1005.6
42.5°	871.4	892.4	923.1	952.7	962.5
45°	821.0	840.7	877.6	910.8	918.2
47.5°	769.3	791.4	830.8	864.1	876.4
50°	717.6	741.0	782.8	817.3	824.7
52.5°	665.9	690.5	734.8	771.7	775.4
55°	611.7	638.8	685.6	721.3	728.7
57.5°	562.5	585.9	636.3	673.3	681.9
60°	508.3	534.2	588.3	622.8	633.9
62.5°	456.6	483.7	540.3	574.8	584.7
65°	402.5	433.3	488.6	529.3	539.1
67.5°	355.7	385.3	444.3	483.7	493.6
70°	301.6	334.8	397.6	438.2	448.0
72.5°	254.8	289.2	352.0	391.4	406.2
75°	204.3	243.7	306.5	348.3	358.2
77.5°	155.1	200.6	264.6	296.6	296.6
80°	110.8	158.8	217.9	232.6	235.1
82.5°	72.6	119.4	161.2	160.0	160.0
85°	41.8	77.5	96.0	93.5	93.5
87.5°	16.0	32.0	34.5	34.5	33.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)