

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: P312276

Luminaire Tested: **14FCZ2-44-UNV-L83050-CP125-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: P312276
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-44-UNV-L83050-CP125-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB 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: 4060.0 lumens
Efficiency: N/A
Efficacy: 106.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

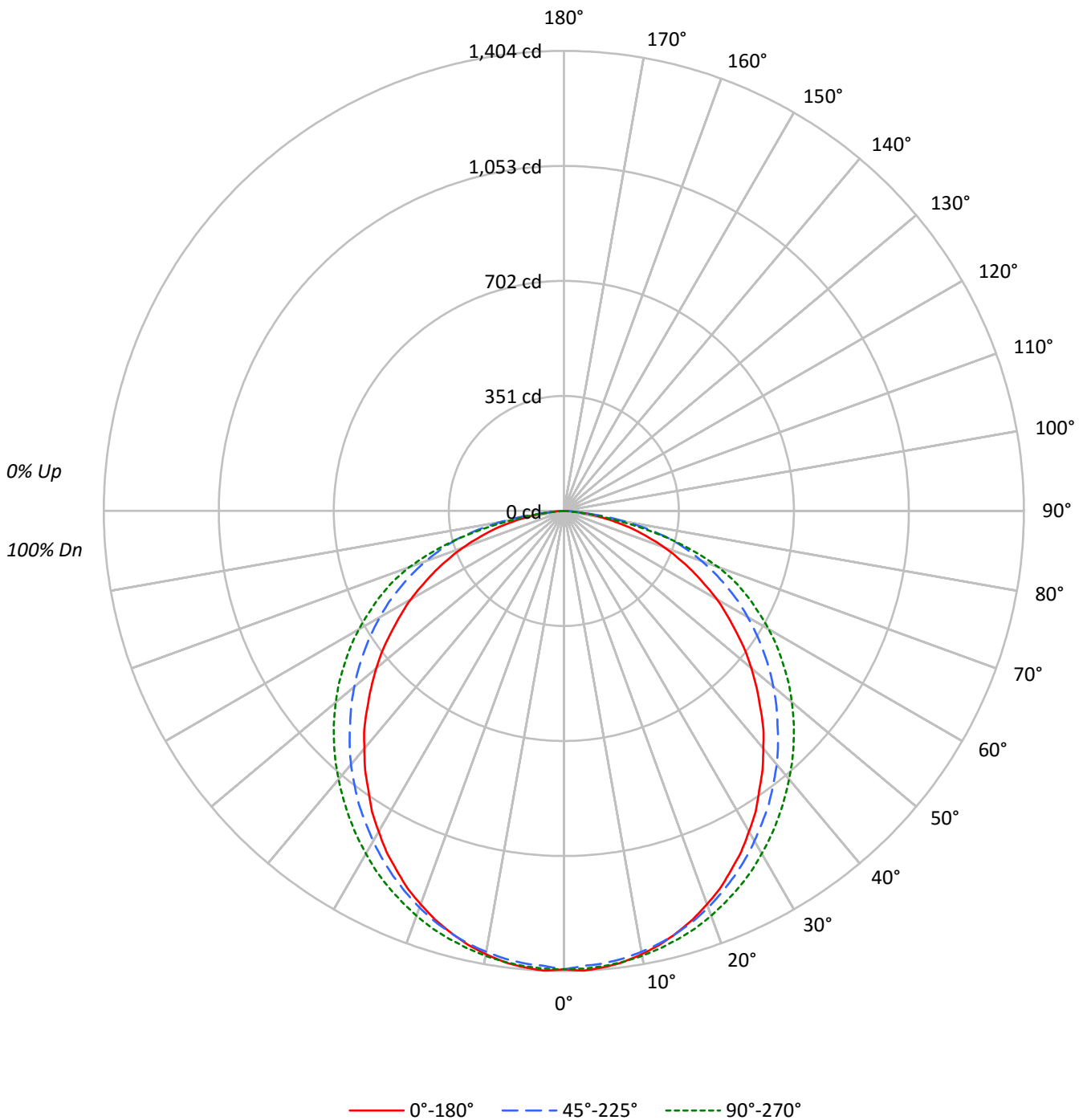
Input Watts (W): 38.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	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	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3764	3764	3764
5°	3776	3744	3766
10°	3753	3733	3768
15°	3712	3715	3765
20°	3658	3689	3764
25°	3589	3653	3760
30°	3511	3615	3753
35°	3417	3584	3750
40°	3326	3549	3756
45°	3225	3511	3776
50°	3131	3494	3801
55°	3012	3483	3835
60°	2904	3489	3888
65°	2755	3499	3948
70°	2585	3526	3946
75°	2344	3558	3567
80°	1922	3073	2540
85°	1426	1454	587



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.4	3.3
10°-20°	378.1	9.3
20°-30°	569.5	14.0
30°-40°	683.5	16.8
40°-50°	712.3	17.5
50°-60°	659.5	16.2
60°-70°	532.8	13.1
70°-80°	324.9	8.0
80°-90°	67.1	1.7
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°	1080.0	26.6
0°-40°	1763.4	43.4
0°-60°	3135.2	77.2
0°-90°	4060.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4060.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1399	1399	1399	1399	1399	
5°	1398	1394	1386	1396	1394	133
15°	1333	1334	1334	1352	1352	376
25°	1209	1216	1230	1261	1266	557
35°	1040	1056	1091	1131	1142	652
45°	847	873	922	974	992	655
55°	642	675	742	800	818	575
65°	433	475	550	605	620	428
75°	225	275	342	348	343	237
85°	46	69	47	26	19	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1398.7	1398.7	1398.7	1398.7	1398.7
2.5°	1404.1	1399.6	1389.6	1399.6	1397.8
5°	1397.8	1394.2	1386.0	1396.0	1394.2
7.5°	1388.7	1385.1	1377.9	1389.6	1387.8
10°	1373.3	1371.5	1366.1	1379.7	1378.8
12.5°	1355.2	1354.3	1351.6	1367.0	1366.1
15°	1332.6	1333.5	1333.5	1351.6	1351.6
17.5°	1307.2	1309.1	1312.7	1332.6	1335.3
20°	1277.4	1281.0	1288.2	1310.9	1314.5
22.5°	1246.6	1249.3	1260.2	1287.3	1291.0
25°	1208.6	1215.8	1230.3	1261.1	1266.5
27.5°	1172.4	1178.7	1198.6	1230.3	1239.4
30°	1129.8	1139.8	1163.3	1197.7	1207.7
32.5°	1089.1	1099.9	1127.1	1166.9	1176.0
35°	1040.2	1056.5	1090.9	1130.7	1141.6
37.5°	995.8	1011.2	1050.1	1093.6	1106.3
40°	946.9	966.0	1010.3	1056.5	1069.2
42.5°	901.7	919.8	967.8	1014.8	1032.0
45°	847.4	872.7	922.5	974.1	992.2
47.5°	797.6	822.9	879.9	935.2	951.5
50°	747.8	774.9	834.7	891.7	908.0
52.5°	696.2	725.1	789.4	846.5	865.5
55°	641.9	675.4	742.3	800.3	817.5
57.5°	590.3	624.7	696.2	755.0	772.2
60°	539.6	574.9	648.2	704.3	722.4
62.5°	483.4	525.1	601.1	656.3	669.9
65°	432.7	475.3	549.5	604.7	620.1
67.5°	379.3	425.5	499.7	550.4	564.9
70°	328.6	376.6	448.1	495.2	501.5
72.5°	274.3	323.2	395.6	425.5	425.5
75°	225.4	275.2	342.2	347.6	343.1
77.5°	172.0	227.2	270.7	259.8	249.0
80°	124.0	178.3	198.3	178.3	163.9
82.5°	83.3	129.5	119.5	95.1	84.2
85°	46.2	68.8	47.1	26.3	19.0
87.5°	17.2	15.4	4.5	4.5	4.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)