

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: P312420

Luminaire Tested: **14FCZ2-44-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: P312420
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
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-S-CA125-W2A-U-3000K
Description: 1'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: 3954.0 lumens
Efficiency: N/A
Efficacy: 103.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

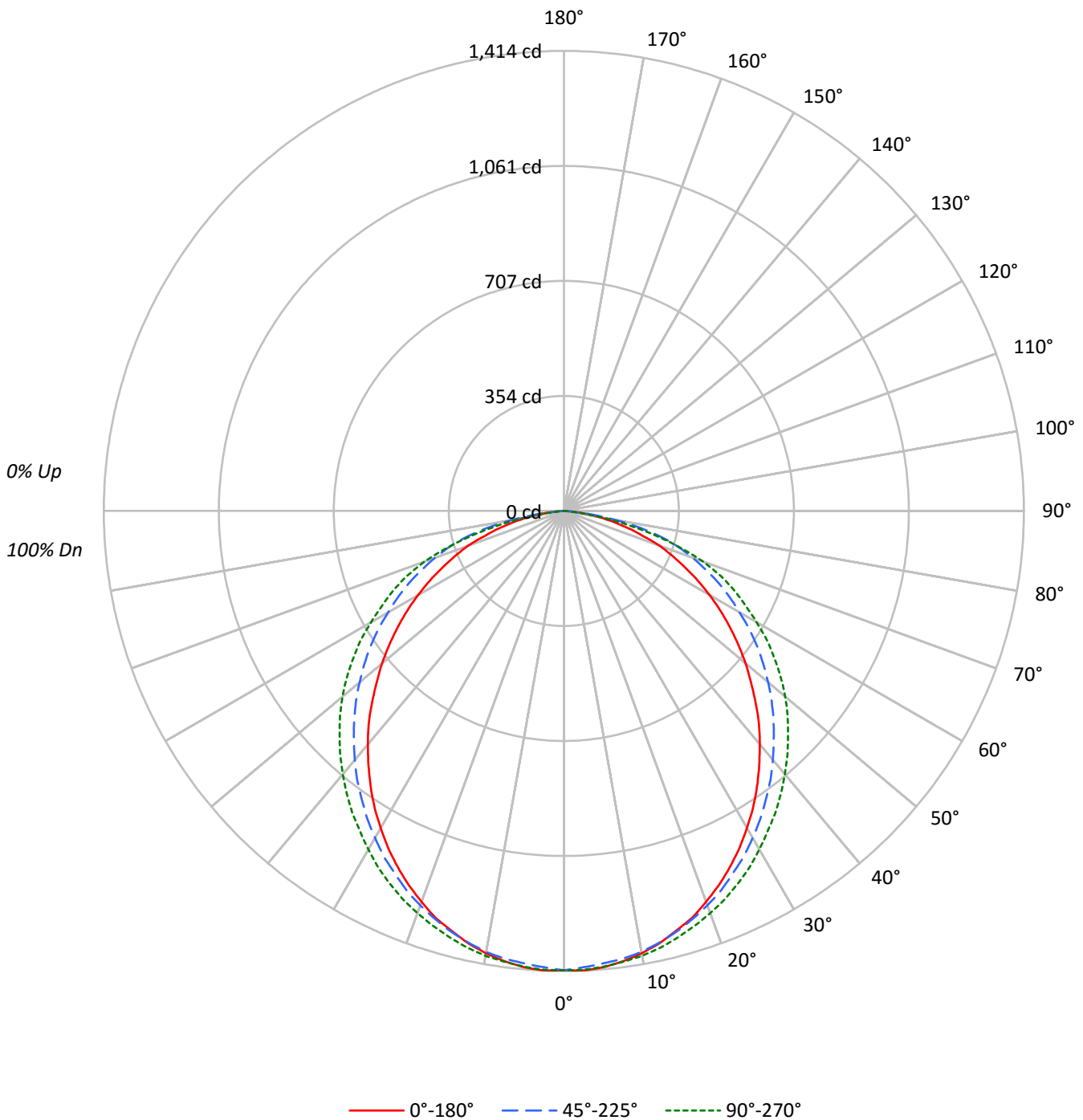
Input Watts (W): 38.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3798	3798	3798
5°	3802	3770	3797
10°	3771	3760	3793
15°	3719	3730	3779
20°	3660	3694	3767
25°	3586	3650	3755
30°	3497	3606	3734
35°	3400	3555	3722
40°	3292	3512	3712
45°	3171	3469	3708
50°	3053	3431	3718
55°	2925	3403	3707
60°	2786	3355	3682
65°	2621	3345	3682
70°	2468	3316	3578
75°	2140	3241	3058
80°	1731	2613	2035
85°	1149	908	605



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.3	3.4
10°-20°	379.3	9.6
20°-30°	568.9	14.4
30°-40°	678.7	17.2
40°-50°	701.6	17.7
50°-60°	640.6	16.2
60°-70°	504.1	12.7
70°-80°	293.4	7.4
80°-90°	54.1	1.4
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°	1081.5	27.4
0°-40°	1760.2	44.5
0°-60°	3102.4	78.5
0°-90°	3954.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3954.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1412	1412	1412	1412	1412	
5°	1408	1404	1396	1408	1406	133
15°	1335	1337	1339	1357	1357	377
25°	1208	1214	1229	1259	1264	556
35°	1035	1049	1082	1123	1133	647
45°	833	861	912	963	974	643
55°	623	657	725	778	790	557
65°	412	455	525	567	578	409
75°	206	255	312	306	294	219
85°	37	53	29	24	20	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1411.5	1411.5	1411.5	1411.5	1411.5
2.5°	1413.5	1409.6	1403.7	1413.5	1411.5
5°	1407.6	1403.7	1395.8	1407.6	1405.6
7.5°	1395.8	1391.9	1388.0	1399.7	1397.8
10°	1380.1	1378.2	1376.2	1389.9	1388.0
12.5°	1360.5	1360.5	1358.6	1374.3	1374.3
15°	1335.1	1337.0	1339.0	1356.6	1356.6
17.5°	1311.5	1309.6	1315.5	1335.1	1337.0
20°	1278.2	1282.1	1290.0	1313.5	1315.5
22.5°	1244.9	1248.8	1262.5	1286.0	1291.9
25°	1207.6	1213.5	1229.2	1258.6	1264.5
27.5°	1168.4	1176.3	1197.8	1229.2	1235.1
30°	1125.3	1137.1	1160.6	1195.9	1201.7
32.5°	1082.2	1093.9	1123.3	1158.6	1166.5
35°	1035.1	1048.8	1082.2	1123.3	1133.1
37.5°	986.1	1003.7	1043.0	1084.1	1095.9
40°	937.1	956.7	999.8	1043.0	1056.7
42.5°	888.1	907.7	954.7	1003.7	1017.5
45°	833.2	860.6	911.6	962.6	974.3
47.5°	780.3	809.7	866.5	917.5	933.2
50°	729.3	758.7	819.5	872.4	888.1
52.5°	676.3	707.7	772.4	827.3	841.0
55°	623.4	656.7	725.4	778.3	790.1
57.5°	570.5	605.8	676.3	727.3	741.0
60°	517.6	554.8	623.4	674.4	684.2
62.5°	464.6	503.8	574.4	619.5	629.3
65°	411.7	454.8	525.4	566.6	578.3
67.5°	360.7	403.8	472.5	511.7	521.5
70°	313.7	352.9	421.5	450.9	454.8
72.5°	254.9	303.9	370.5	386.2	376.4
75°	205.8	254.9	311.7	305.8	294.1
77.5°	156.8	205.8	243.1	223.5	207.8
80°	111.7	160.8	168.6	139.2	131.3
82.5°	72.5	111.7	94.1	72.5	58.8
85°	37.2	52.9	29.4	23.5	19.6
87.5°	11.8	7.8	3.9	3.9	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)