

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: P312270

Luminaire Tested: **14FCZ2-44-UNV-L83050-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: P312270
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-CA125-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE,RIBBED 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: 3913.0 lumens
Efficiency: N/A
Efficacy: 102.4 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

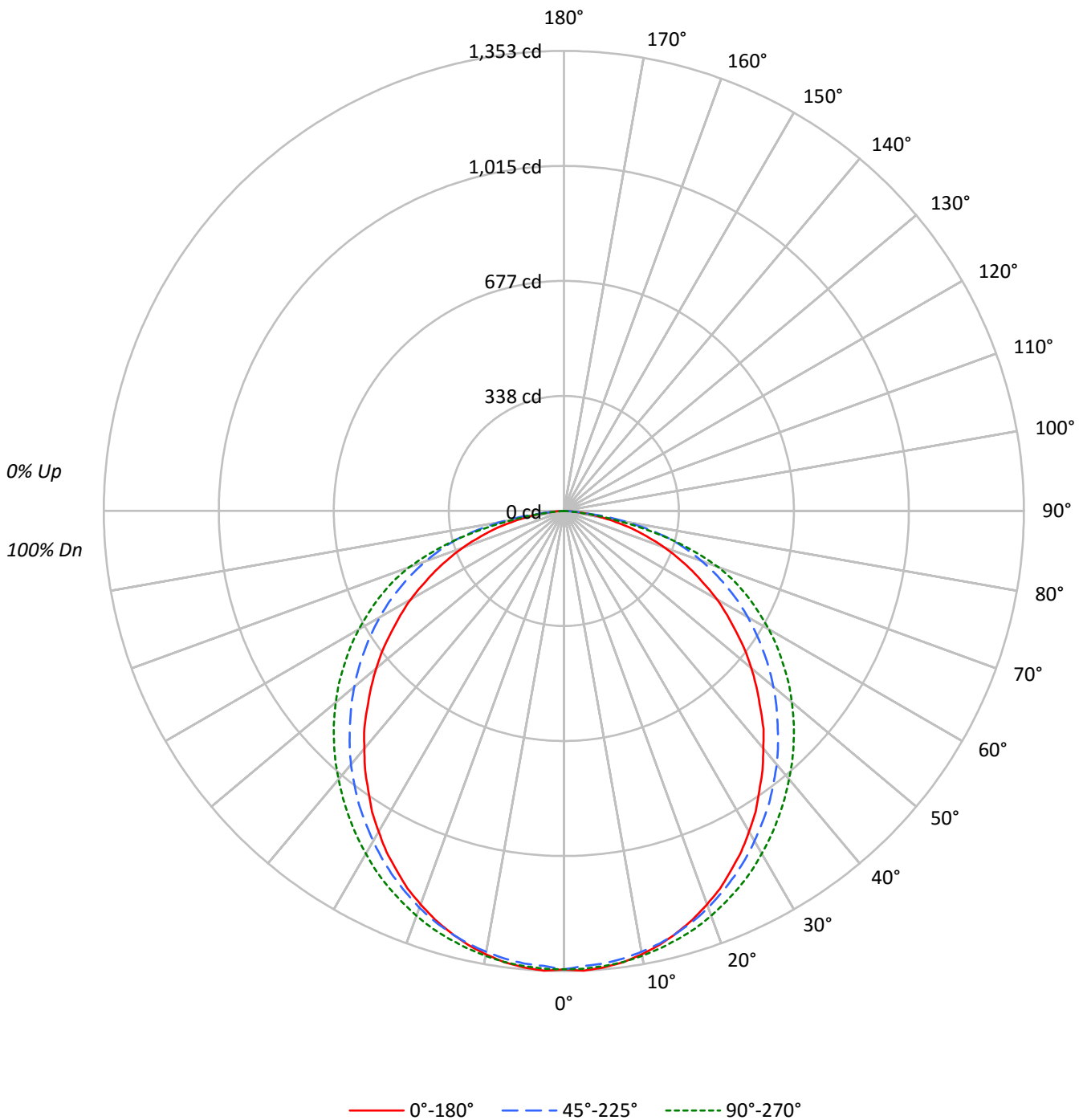
Input Watts (W): 38.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	3627	3627	3627
5°	3639	3608	3630
10°	3617	3598	3631
15°	3578	3580	3629
20°	3525	3556	3628
25°	3458	3521	3624
30°	3384	3484	3617
35°	3293	3454	3614
40°	3206	3420	3620
45°	3108	3384	3639
50°	3017	3368	3664
55°	2902	3357	3696
60°	2799	3362	3747
65°	2656	3372	3806
70°	2492	3398	3803
75°	2259	3429	3438
80°	1852	2961	2447
85°	1374	1402	565



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.6	3.3
10°-20°	364.4	9.3
20°-30°	548.9	14.0
30°-40°	658.7	16.8
40°-50°	686.6	17.5
50°-60°	635.6	16.2
60°-70°	513.5	13.1
70°-80°	313.1	8.0
80°-90°	64.6	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°	1040.9	26.6
0°-40°	1699.6	43.4
0°-60°	3021.7	77.2
0°-90°	3913.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3913.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1348	1348	1348	1348	1348	
5°	1347	1344	1336	1345	1344	128
15°	1284	1285	1285	1303	1303	362
25°	1165	1172	1186	1215	1221	537
35°	1002	1018	1051	1090	1100	628
45°	817	841	889	939	956	631
55°	619	651	716	771	788	554
65°	417	458	530	583	598	412
75°	217	265	330	335	331	228
85°	44	66	45	25	18	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1348.0	1348.0	1348.0	1348.0	1348.0
2.5°	1353.3	1348.9	1339.3	1348.9	1347.2
5°	1347.2	1343.7	1335.8	1345.4	1343.7
7.5°	1338.4	1335.0	1328.0	1339.3	1337.6
10°	1323.6	1321.9	1316.6	1329.7	1328.8
12.5°	1306.2	1305.3	1302.7	1317.5	1316.6
15°	1284.3	1285.2	1285.2	1302.7	1302.7
17.5°	1259.9	1261.7	1265.2	1284.3	1287.0
20°	1231.1	1234.6	1241.6	1263.4	1266.9
22.5°	1201.5	1204.1	1214.5	1240.7	1244.2
25°	1164.8	1171.8	1185.8	1215.4	1220.7
27.5°	1129.9	1136.0	1155.2	1185.8	1194.5
30°	1088.9	1098.5	1121.2	1154.3	1163.9
32.5°	1049.6	1060.1	1086.3	1124.7	1133.4
35°	1002.5	1018.2	1051.4	1089.8	1100.2
37.5°	959.8	974.6	1012.1	1054.0	1066.2
40°	912.7	931.0	973.7	1018.2	1030.4
42.5°	869.0	886.5	932.7	978.1	994.7
45°	816.7	841.1	889.1	938.8	956.3
47.5°	768.7	793.1	848.1	901.3	917.0
50°	720.7	746.9	804.5	859.4	875.1
52.5°	671.0	698.9	760.8	815.8	834.1
55°	618.6	650.9	715.5	771.3	787.9
57.5°	568.9	602.0	671.0	727.7	744.3
60°	520.0	554.0	624.7	678.8	696.3
62.5°	465.9	506.1	579.4	632.6	645.7
65°	417.1	458.1	529.6	582.8	597.7
67.5°	365.6	410.1	481.6	530.5	544.5
70°	316.7	363.0	431.9	477.3	483.4
72.5°	264.4	311.5	381.3	410.1	410.1
75°	217.3	265.2	329.8	335.0	330.7
77.5°	165.8	219.0	260.9	250.4	239.9
80°	119.5	171.9	191.1	171.9	157.9
82.5°	80.3	124.8	115.2	91.6	81.1
85°	44.5	66.3	45.4	25.3	18.3
87.5°	16.6	14.8	4.4	4.4	4.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)