

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: P312248

Luminaire Tested: **14FCZ2-39-UNV-L83050-CA125-W2A-U-4500K**

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: P312248
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: 14FCZ2-39-UNV-L83050-CA125-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 4500K 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

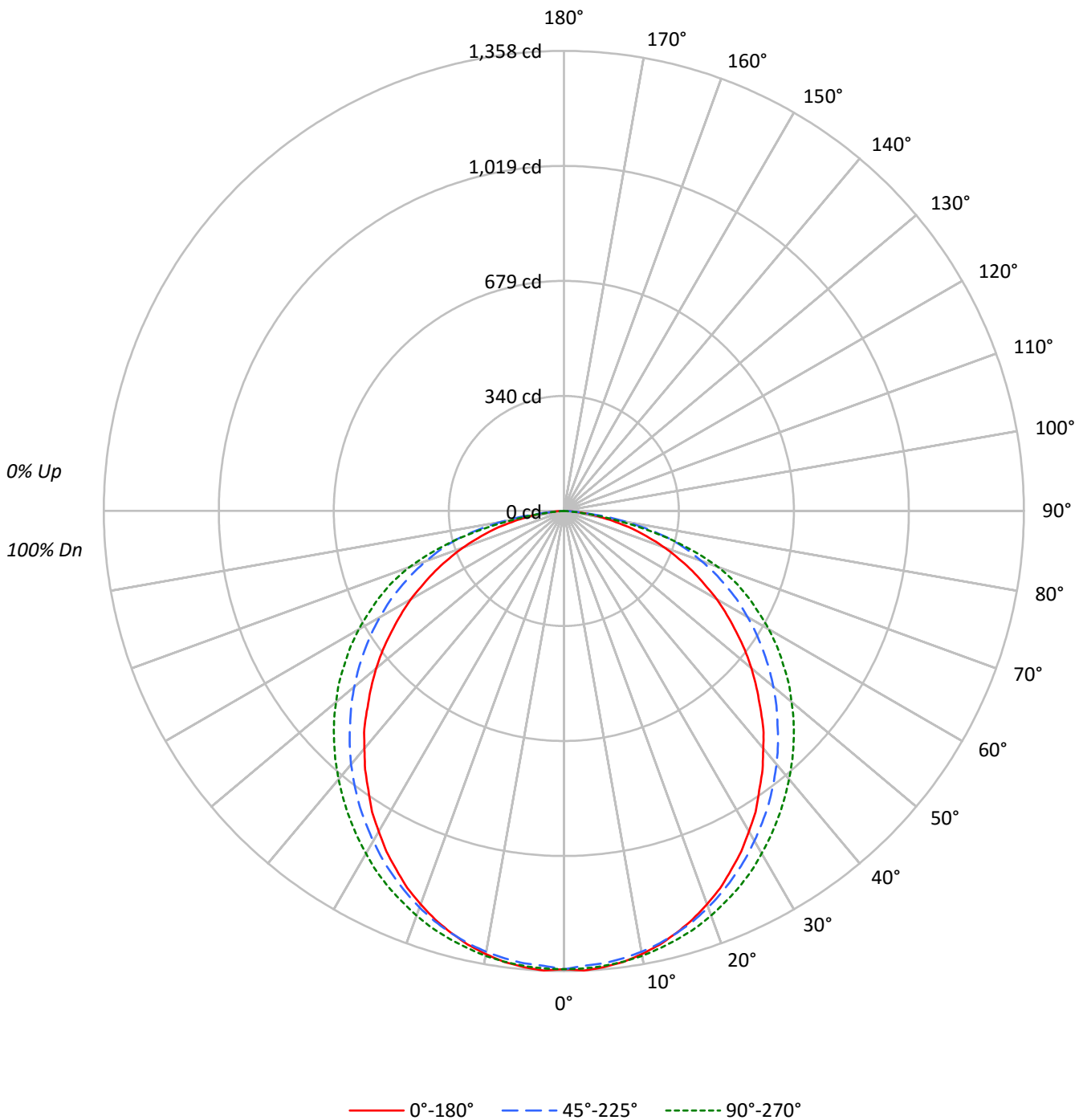
Lumens per Lamp: N/A
Luminaire Lumens: 3926.0 lumens
Efficiency: N/A
Efficacy: 112.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 34.9
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°	3640	3640	3640
5°	3651	3620	3642
10°	3629	3610	3643
15°	3590	3592	3641
20°	3537	3567	3640
25°	3470	3532	3636
30°	3395	3495	3629
35°	3304	3465	3626
40°	3217	3432	3632
45°	3118	3395	3651
50°	3027	3379	3676
55°	2912	3368	3709
60°	2808	3373	3760
65°	2664	3384	3819
70°	2500	3409	3816
75°	2267	3440	3450
80°	1858	2971	2456
85°	1377	1405	568



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.0	3.3
10°-20°	365.6	9.3
20°-30°	550.7	14.0
30°-40°	660.9	16.8
40°-50°	688.8	17.5
50°-60°	637.7	16.2
60°-70°	515.2	13.1
70°-80°	314.1	8.0
80°-90°	64.9	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°	1044.3	26.6
0°-40°	1705.2	43.4
0°-60°	3031.8	77.2
0°-90°	3926.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3926.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1352	1352	1352	1352	1352	
5°	1352	1348	1340	1350	1348	128
15°	1289	1290	1290	1307	1307	363
25°	1169	1176	1190	1220	1225	539
35°	1006	1022	1055	1093	1104	630
45°	819	844	892	942	960	633
55°	621	653	718	774	790	556
65°	418	460	531	585	600	414
75°	218	266	331	336	332	229
85°	45	66	46	25	18	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1352.5	1352.5	1352.5	1352.5	1352.5
2.5°	1357.8	1353.4	1343.8	1353.4	1351.6
5°	1351.6	1348.1	1340.3	1349.9	1348.1
7.5°	1342.9	1339.4	1332.4	1343.8	1342.0
10°	1328.0	1326.3	1321.0	1334.1	1333.3
12.5°	1310.5	1309.6	1307.0	1321.9	1321.0
15°	1288.6	1289.5	1289.5	1307.0	1307.0
17.5°	1264.1	1265.9	1269.4	1288.6	1291.2
20°	1235.2	1238.7	1245.7	1267.6	1271.1
22.5°	1205.4	1208.1	1218.6	1244.8	1248.3
25°	1168.7	1175.7	1189.7	1219.5	1224.7
27.5°	1133.7	1139.8	1159.1	1189.7	1198.4
30°	1092.5	1102.2	1124.9	1158.2	1167.8
32.5°	1053.1	1063.6	1089.9	1128.4	1137.2
35°	1005.9	1021.6	1054.9	1093.4	1103.9
37.5°	963.0	977.8	1015.5	1057.5	1069.8
40°	915.7	934.1	977.0	1021.6	1033.9
42.5°	871.9	889.4	935.8	981.3	998.0
45°	819.4	843.9	892.1	941.9	959.5
47.5°	771.2	795.8	850.9	904.3	920.1
50°	723.1	749.4	807.1	862.3	878.0
52.5°	673.2	701.2	763.4	818.5	836.9
55°	620.7	653.1	717.8	773.9	790.5
57.5°	570.8	604.0	673.2	730.1	746.7
60°	521.7	555.9	626.8	681.1	698.6
62.5°	467.5	507.7	581.3	634.7	647.8
65°	418.4	459.6	531.4	584.8	599.7
67.5°	366.8	411.4	483.2	532.3	546.3
70°	317.8	364.2	433.3	478.9	485.0
72.5°	265.3	312.5	382.6	411.4	411.4
75°	218.0	266.1	330.9	336.2	331.8
77.5°	166.3	219.7	261.7	251.2	240.7
80°	119.9	172.5	191.7	172.5	158.5
82.5°	80.5	125.2	115.6	91.9	81.4
85°	44.6	66.5	45.5	25.4	18.4
87.5°	16.6	14.9	4.4	4.4	4.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)