

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: P312242

Luminaire Tested: **14FCZ2-39-UNV-L83050-CA08-W2A-U-4000K**

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: P312242
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-CA08-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 4000K 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: 3903.0 lumens
Efficiency: N/A
Efficacy: 114.5 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

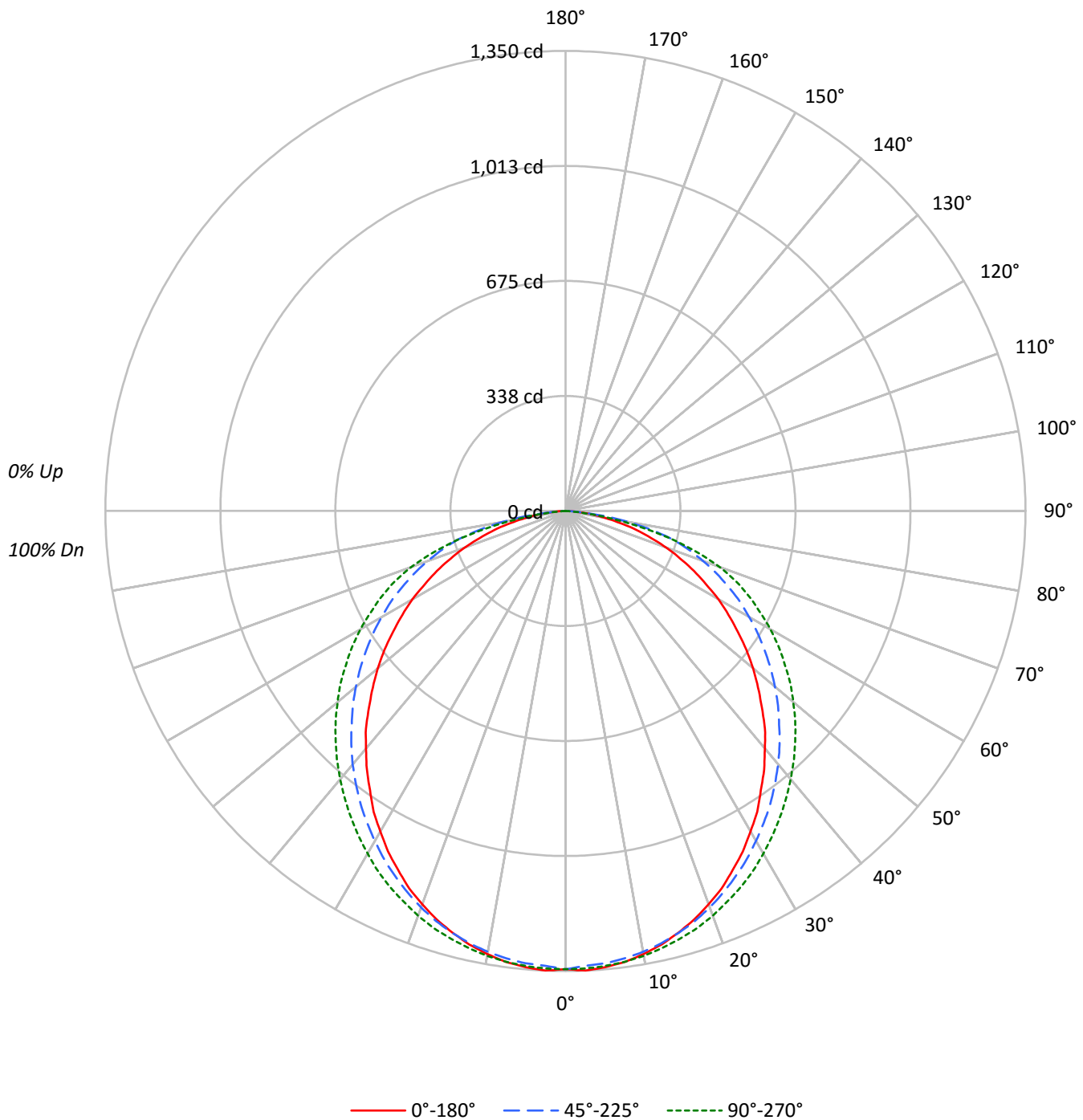
Input Watts (W): 34.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	109	104	99	95	106	101	97	94	97	94	91		93	90	88		83
2	98	90	83	77	96	88	82	76	84	79	74		81	77	73		69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		58
4	82	70	61	54	79	68	60	53	66	58	53		63	57	52		49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		32
8	60	46	37	32	58	45	37	31	44	37	31		43	36	31		29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		26
10	52	39	31	26	51	39	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3618	3618	3618
5°	3630	3599	3620
10°	3607	3589	3622
15°	3569	3571	3620
20°	3517	3546	3619
25°	3450	3512	3615
30°	3375	3475	3608
35°	3285	3445	3605
40°	3198	3412	3610
45°	3100	3375	3630
50°	3010	3359	3654
55°	2895	3348	3687
60°	2792	3353	3738
65°	2649	3364	3796
70°	2485	3389	3793
75°	2253	3421	3429
80°	1847	2954	2441
85°	1371	1399	565



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.2	3.3
10°-20°	363.5	9.3
20°-30°	547.5	14.0
30°-40°	657.0	16.8
40°-50°	684.8	17.5
50°-60°	634.0	16.2
60°-70°	512.2	13.1
70°-80°	312.3	8.0
80°-90°	64.5	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°	1038.2	26.6
0°-40°	1695.2	43.4
0°-60°	3014.0	77.2
0°-90°	3903.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3903.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1345	1345	1345	1345	1345	
5°	1344	1340	1332	1342	1340	128
15°	1281	1282	1282	1299	1299	361
25°	1162	1169	1183	1212	1218	535
35°	1000	1016	1049	1087	1097	626
45°	815	839	887	936	954	630
55°	617	649	714	769	786	553
65°	416	457	528	581	596	411
75°	217	265	329	334	330	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°	1344.6	1344.6	1344.6	1344.6	1344.6
2.5°	1349.8	1345.5	1335.9	1345.5	1343.7
5°	1343.7	1340.2	1332.4	1342.0	1340.2
7.5°	1335.0	1331.5	1324.6	1335.9	1334.2
10°	1320.2	1318.5	1313.3	1326.3	1325.4
12.5°	1302.8	1302.0	1299.3	1314.1	1313.3
15°	1281.1	1281.9	1281.9	1299.3	1299.3
17.5°	1256.7	1258.4	1261.9	1281.1	1283.7
20°	1228.0	1231.5	1238.4	1260.2	1263.7
22.5°	1198.4	1201.0	1211.4	1237.6	1241.0
25°	1161.8	1168.8	1182.7	1212.3	1217.5
27.5°	1127.0	1133.1	1152.3	1182.7	1191.4
30°	1086.1	1095.7	1118.3	1151.4	1161.0
32.5°	1047.0	1057.4	1083.5	1121.8	1130.5
35°	1000.0	1015.6	1048.7	1087.0	1097.4
37.5°	957.3	972.1	1009.5	1051.3	1063.5
40°	910.3	928.6	971.2	1015.6	1027.8
42.5°	866.8	884.2	930.3	975.6	992.1
45°	814.6	839.0	886.8	936.4	953.8
47.5°	766.7	791.1	845.9	899.0	914.7
50°	718.9	745.0	802.4	857.2	872.9
52.5°	669.3	697.1	758.9	813.7	832.0
55°	617.0	649.2	713.6	769.3	785.9
57.5°	567.4	600.5	669.3	725.8	742.4
60°	518.7	552.6	623.1	677.1	694.5
62.5°	464.7	504.8	577.9	631.0	644.0
65°	416.0	456.9	528.3	581.4	596.1
67.5°	364.7	409.0	480.4	529.1	543.1
70°	315.9	362.0	430.8	476.0	482.1
72.5°	263.7	310.7	380.3	409.0	409.0
75°	216.7	264.6	329.0	334.2	329.8
77.5°	165.4	218.4	260.2	249.8	239.3
80°	119.2	171.4	190.6	171.4	157.5
82.5°	80.1	124.5	114.9	91.4	80.9
85°	44.4	66.1	45.3	25.2	18.3
87.5°	16.5	14.8	4.4	4.4	4.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)