

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: P312287

Luminaire Tested: **14FCZ2-44-UNV-L83050-CP250-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: P312287
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-CP250-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.250" POLYCARB 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: 4050.0 lumens
Efficiency: N/A
Efficacy: 103.3 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

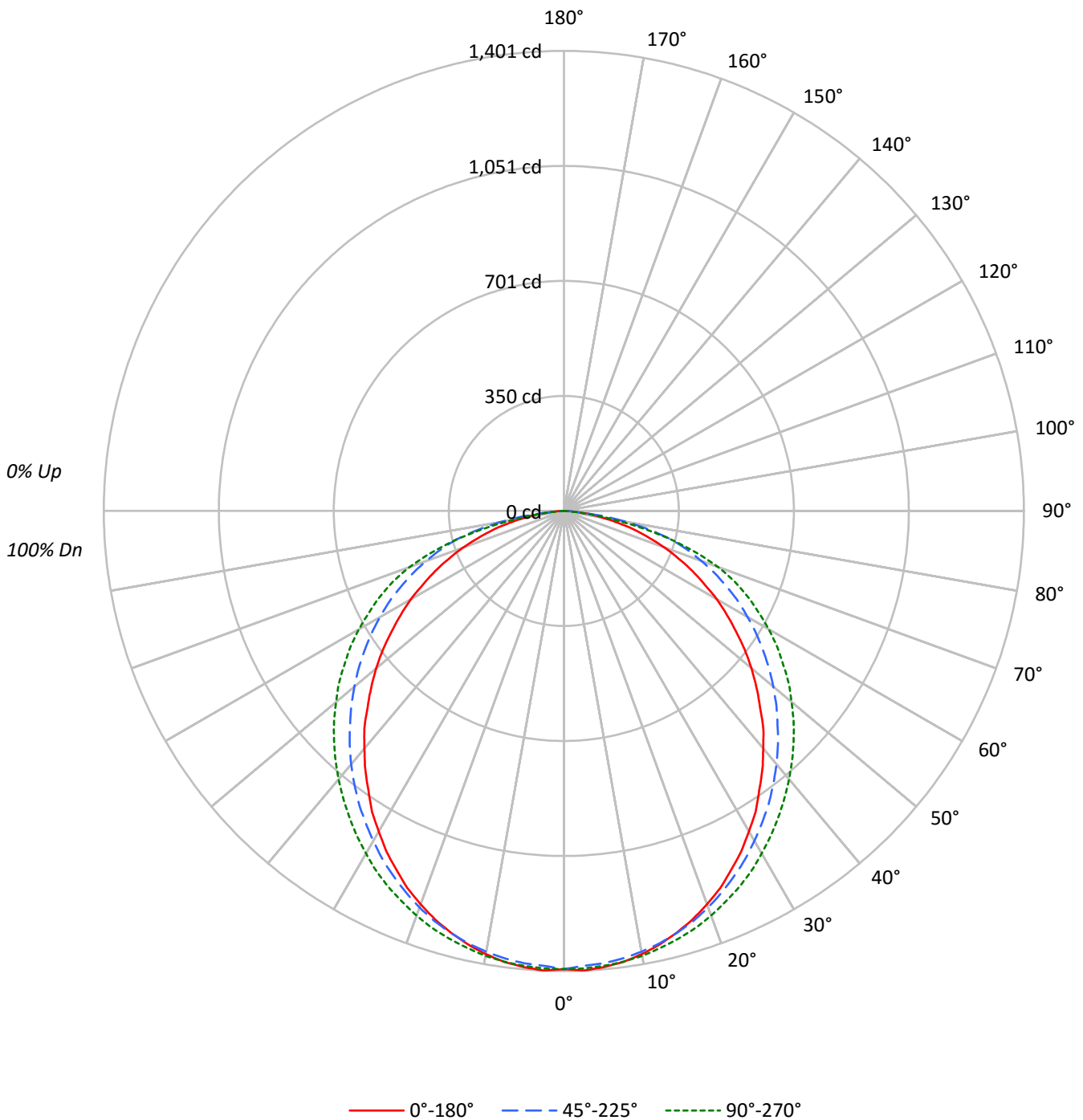
Input Watts (W): 39.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3754	3754	3754
5°	3766	3735	3757
10°	3744	3724	3758
15°	3703	3706	3756
20°	3649	3680	3755
25°	3580	3644	3751
30°	3502	3606	3743
35°	3409	3575	3741
40°	3318	3540	3746
45°	3217	3502	3767
50°	3123	3486	3792
55°	3004	3474	3826
60°	2897	3480	3878
65°	2749	3491	3939
70°	2579	3517	3936
75°	2338	3550	3559
80°	1917	3065	2534
85°	1423	1451	587



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.0	3.3
10°-20°	377.1	9.3
20°-30°	568.1	14.0
30°-40°	681.8	16.8
40°-50°	710.6	17.5
50°-60°	657.8	16.2
60°-70°	531.5	13.1
70°-80°	324.1	8.0
80°-90°	66.9	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°	1077.3	26.6
0°-40°	1759.1	43.4
0°-60°	3127.5	77.2
0°-90°	4050.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4050.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1395	1395	1395	1395	1395	
5°	1394	1391	1383	1392	1391	132
15°	1329	1330	1330	1348	1348	375
25°	1206	1213	1227	1258	1263	556
35°	1038	1054	1088	1128	1139	650
45°	845	871	920	972	990	653
55°	640	674	740	798	816	574
65°	432	474	548	603	619	427
75°	225	274	341	347	342	236
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°	1395.2	1395.2	1395.2	1395.2	1395.2
2.5°	1400.7	1396.1	1386.2	1396.1	1394.3
5°	1394.3	1390.7	1382.6	1392.5	1390.7
7.5°	1385.3	1381.7	1374.5	1386.2	1384.4
10°	1370.0	1368.1	1362.7	1376.3	1375.4
12.5°	1351.9	1351.0	1348.3	1363.6	1362.7
15°	1329.3	1330.2	1330.2	1348.3	1348.3
17.5°	1304.0	1305.8	1309.4	1329.3	1332.0
20°	1274.2	1277.8	1285.1	1307.6	1311.3
22.5°	1243.5	1246.2	1257.1	1284.2	1287.8
25°	1205.6	1212.8	1227.3	1258.0	1263.4
27.5°	1169.5	1175.8	1195.7	1227.3	1236.3
30°	1127.0	1137.0	1160.4	1194.8	1204.7
32.5°	1086.4	1097.2	1124.3	1164.1	1173.1
35°	1037.6	1053.9	1088.2	1127.9	1138.8
37.5°	993.4	1008.7	1047.6	1090.9	1103.5
40°	944.6	963.6	1007.8	1053.9	1066.5
42.5°	899.5	917.5	965.4	1012.3	1029.5
45°	845.3	870.6	920.2	971.7	989.8
47.5°	795.6	820.9	877.8	932.9	949.1
50°	745.9	773.0	832.6	889.5	905.8
52.5°	694.5	723.4	787.5	844.4	863.3
55°	640.3	673.7	740.5	798.3	815.5
57.5°	588.8	623.1	694.5	753.2	770.3
60°	538.2	573.4	646.6	702.6	720.6
62.5°	482.2	523.8	599.6	654.7	668.3
65°	431.7	474.1	548.2	603.2	618.6
67.5°	378.4	424.4	498.5	549.1	563.5
70°	327.8	375.7	447.0	494.0	500.3
72.5°	273.6	322.4	394.6	424.4	424.4
75°	224.9	274.5	341.4	346.8	342.3
77.5°	171.6	226.7	270.0	259.2	248.3
80°	123.7	177.9	197.8	177.9	163.5
82.5°	83.1	129.1	119.2	94.8	84.0
85°	46.1	68.6	47.0	26.2	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)