

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: P313623

Luminaire Tested: **24FCZ2-50HE-UNV-L83050-RDP-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: P313623
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-50HE-UNV-L83050-RDP-CA125-W2A-U-4500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (336) 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: 3264.0 lumens
Efficiency: N/A
Efficacy: 81.0 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

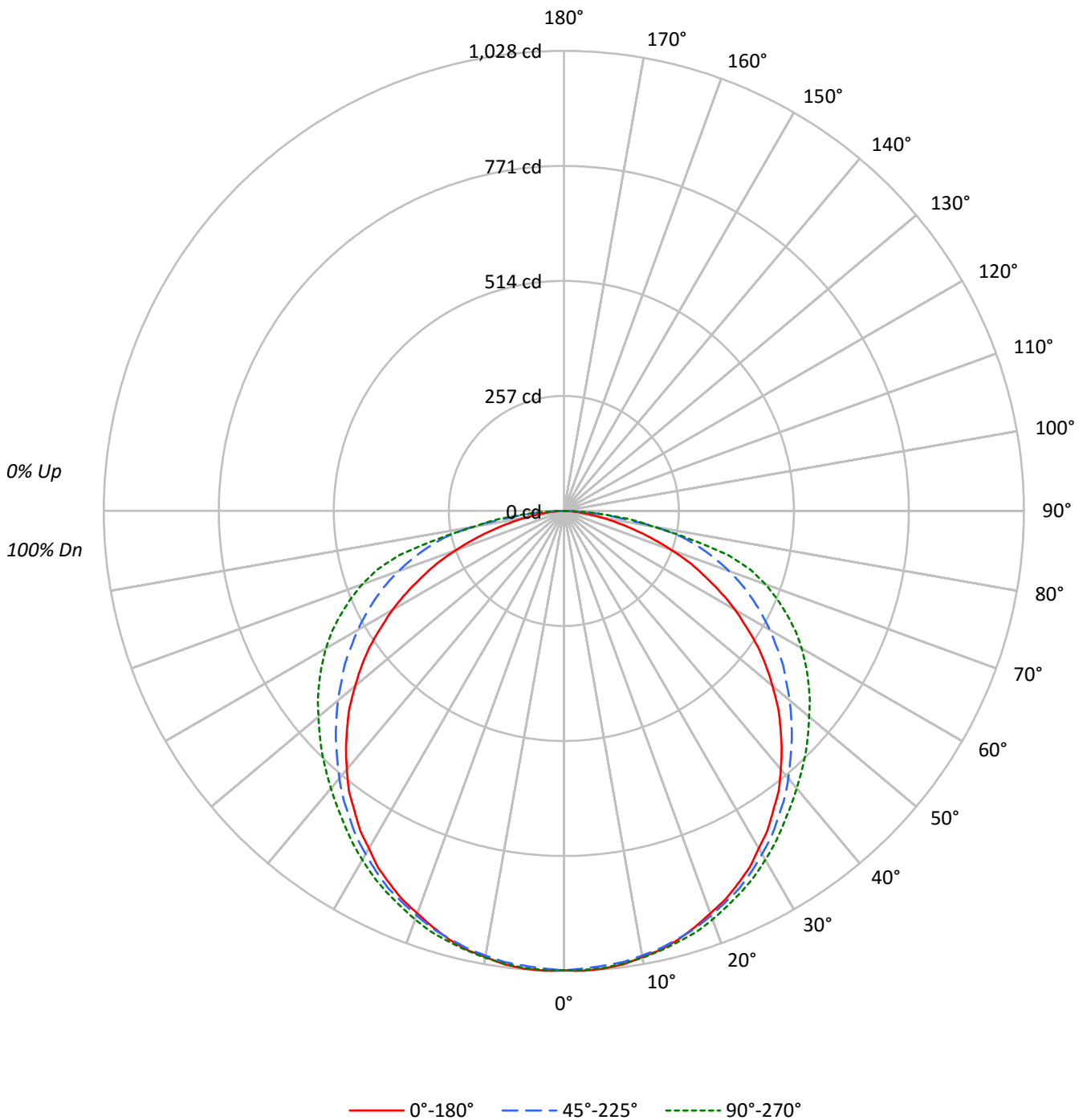
Input Watts (W): 40.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1381	1381	1381
5°	1386	1378	1384
10°	1383	1378	1385
15°	1380	1378	1387
20°	1370	1377	1391
25°	1365	1380	1394
30°	1353	1376	1399
35°	1340	1372	1404
40°	1325	1371	1422
45°	1303	1371	1454
50°	1274	1379	1498
55°	1242	1401	1565
60°	1189	1429	1651
65°	1113	1479	1753
70°	1013	1548	1885
75°	858	1633	1969
80°	677	1643	1593
85°	500	1249	1400



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.4	3.0
10°-20°	280.2	8.6
20°-30°	428.5	13.1
30°-40°	523.9	16.0
40°-50°	558.3	17.1
50°-60°	533.8	16.4
60°-70°	452.2	13.9
70°-80°	303.9	9.3
80°-90°	85.7	2.6
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°	806.1	24.7
0°-40°	1330.0	40.7
0°-60°	2422.1	74.2
0°-90°	3264.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3264.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1026	1026	1026	1026	1026	
5°	1026	1025	1020	1025	1025	98
15°	991	991	989	997	996	279
25°	920	923	929	937	939	424
35°	816	822	835	852	855	511
45°	685	696	720	751	764	528
55°	529	549	597	644	667	472
65°	350	385	465	526	550	347
75°	165	225	314	368	379	177
85°	32	66	81	87	91	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1026.4	1026.4	1026.4	1026.4	1026.4
2.5°	1028.1	1028.1	1023.2	1026.4	1026.4
5°	1026.4	1024.8	1020.0	1024.8	1024.8
7.5°	1021.6	1020.0	1016.7	1021.6	1020.0
10°	1011.9	1011.9	1008.6	1013.5	1013.5
12.5°	1003.8	1002.2	1000.5	1007.0	1005.4
15°	990.8	990.8	989.2	997.3	995.7
17.5°	974.6	976.2	977.9	984.3	986.0
20°	956.8	960.1	961.7	971.4	971.4
22.5°	940.6	942.2	945.5	955.2	955.2
25°	919.6	922.8	929.3	937.4	939.0
27.5°	898.5	900.2	908.2	919.6	921.2
30°	871.0	875.9	885.6	898.5	900.2
32.5°	846.7	851.6	862.9	875.9	879.1
35°	816.0	822.4	835.4	851.6	854.8
37.5°	788.4	793.3	809.5	827.3	832.2
40°	754.4	764.2	780.3	801.4	809.5
42.5°	720.4	730.2	749.6	777.1	786.8
45°	684.8	696.2	720.4	751.2	764.2
47.5°	649.2	662.2	689.7	725.3	739.9
50°	608.7	624.9	658.9	699.4	715.6
52.5°	569.9	589.3	626.5	671.9	692.9
55°	529.4	548.8	597.4	644.4	667.0
57.5°	484.1	510.0	563.4	616.8	641.1
60°	442.0	466.3	531.0	589.3	613.6
62.5°	396.7	429.0	498.6	560.2	584.5
65°	349.7	385.3	464.6	526.2	550.5
67.5°	307.6	346.5	430.6	492.2	516.5
70°	257.4	306.0	393.4	454.9	479.2
72.5°	210.5	263.9	354.6	414.5	437.1
75°	165.1	225.0	314.1	367.5	378.8
77.5°	123.0	186.2	272.0	294.7	286.6
80°	87.4	148.9	212.1	200.8	205.6
82.5°	56.7	113.3	131.1	148.9	153.8
85°	32.4	66.4	80.9	87.4	90.7
87.5°	14.6	24.3	32.4	32.4	30.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)