

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: P313647

Luminaire Tested: **24FCZ2-50-UNV-L83050-RDP-CA125-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: P313647
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: 24FCZ2-50-UNV-L83050-RDP-CA125-W2A-U-4000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" 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: 3218.0 lumens
Efficiency: N/A
Efficacy: 73.6 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

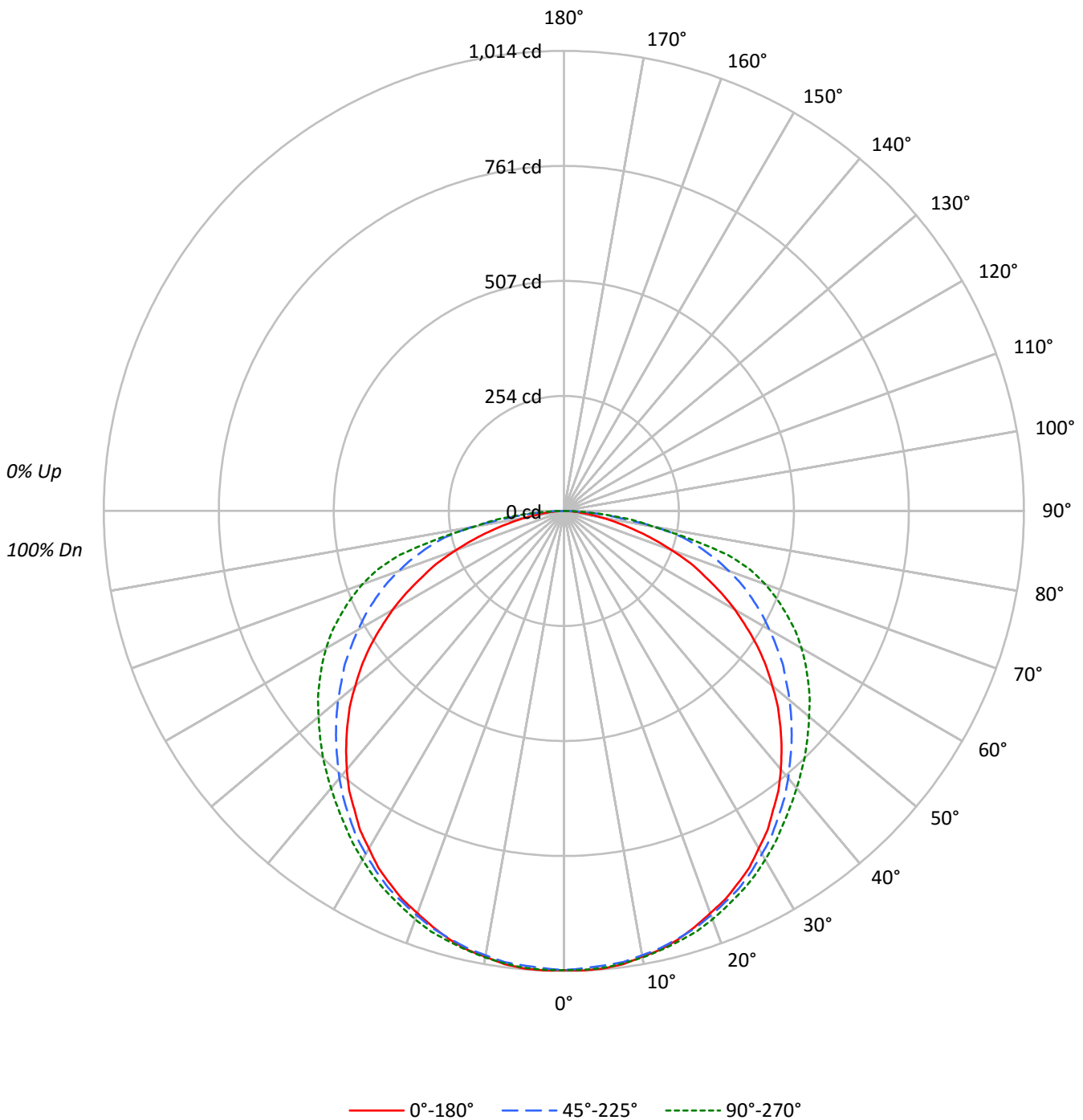
Input Watts (W): 43.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1362	1362	1362
5°	1367	1358	1365
10°	1363	1359	1365
15°	1361	1359	1367
20°	1351	1358	1371
25°	1346	1360	1374
30°	1334	1356	1379
35°	1321	1353	1384
40°	1306	1351	1402
45°	1285	1352	1434
50°	1256	1360	1477
55°	1224	1382	1543
60°	1173	1409	1628
65°	1098	1458	1728
70°	998	1526	1859
75°	846	1610	1942
80°	668	1620	1571
85°	492	1232	1380



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.0	3.0
10°-20°	276.3	8.6
20°-30°	422.5	13.1
30°-40°	516.5	16.0
40°-50°	550.5	17.1
50°-60°	526.3	16.4
60°-70°	445.9	13.9
70°-80°	299.7	9.3
80°-90°	84.5	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°	794.7	24.7
0°-40°	1311.2	40.7
0°-60°	2388.0	74.2
0°-90°	3218.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3218.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1012	1012	1012	1012	1012	
5°	1012	1010	1006	1010	1010	96
15°	977	977	975	983	982	275
25°	907	910	916	924	926	418
35°	804	811	824	840	843	504
45°	675	686	710	741	753	521
55°	522	541	589	635	658	465
65°	345	380	458	519	543	342
75°	163	222	310	362	374	174
85°	32	65	80	86	89	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1012.0	1012.0	1012.0	1012.0	1012.0
2.5°	1013.6	1013.6	1008.8	1012.0	1012.0
5°	1012.0	1010.4	1005.6	1010.4	1010.4
7.5°	1007.2	1005.6	1002.4	1007.2	1005.6
10°	997.6	997.6	994.4	999.2	999.2
12.5°	989.6	988.0	986.4	992.8	991.2
15°	976.9	976.9	975.3	983.2	981.6
17.5°	960.9	962.5	964.1	970.5	972.1
20°	943.3	946.5	948.1	957.7	957.7
22.5°	927.4	929.0	932.2	941.7	941.7
25°	906.6	909.8	916.2	924.2	925.8
27.5°	885.9	887.5	895.4	906.6	908.2
30°	858.7	863.5	873.1	885.9	887.5
32.5°	834.8	839.6	850.8	863.5	866.7
35°	804.5	810.9	823.6	839.6	842.8
37.5°	777.3	782.1	798.1	815.6	820.4
40°	743.8	753.4	769.4	790.1	798.1
42.5°	710.3	719.9	739.0	766.2	775.7
45°	675.2	686.4	710.3	740.6	753.4
47.5°	640.1	652.8	680.0	715.1	729.4
50°	600.2	616.1	649.6	689.5	705.5
52.5°	561.9	581.0	617.7	662.4	683.2
55°	521.9	541.1	589.0	635.3	657.6
57.5°	477.3	502.8	555.5	608.1	632.1
60°	435.8	459.7	523.5	581.0	604.9
62.5°	391.1	423.0	491.6	552.3	576.2
65°	344.8	379.9	458.1	518.8	542.7
67.5°	303.3	341.6	424.6	485.2	509.2
70°	253.8	301.7	387.9	448.5	472.5
72.5°	207.5	260.2	349.6	408.6	431.0
75°	162.8	221.9	309.7	362.3	373.5
77.5°	121.3	183.6	268.2	290.5	282.5
80°	86.2	146.8	209.1	197.9	202.7
82.5°	55.9	111.7	129.3	146.8	151.6
85°	31.9	65.4	79.8	86.2	89.4
87.5°	14.4	23.9	31.9	31.9	30.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)