

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: P309554

Luminaire Tested: **24FCZ2-50-UNV-L82765-HRP-CA125-W2A-U-2700K**

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: P309554
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
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-L82765-HRP-CA125-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 2700K 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: 3172.0 lumens
Efficiency: N/A
Efficacy: 74.3 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

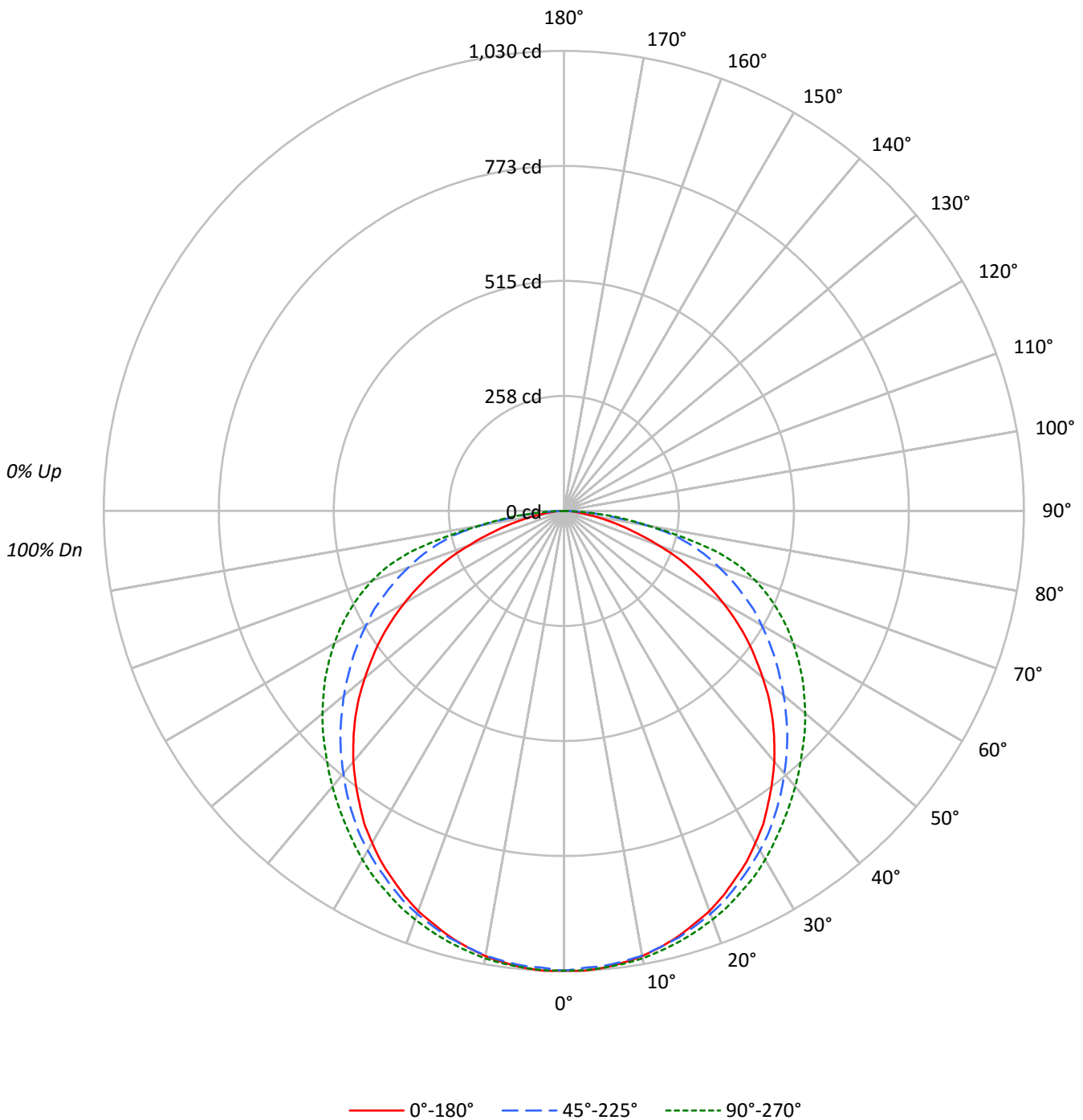
Input Watts (W): 42.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P309554

CATALOG NUMBER: 24FCZ2-50-UNV-L82765-HRP-CA125-W2A-U-2700K

Luminous Intensity Polar Plot





TEST NUMBER: P309554

CATALOG NUMBER: 24FCZ2-50-UNV-L82765-HRP-CA125-W2A-U-2700K

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	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1385	1385	1385
5°	1386	1381	1386
10°	1383	1381	1390
15°	1374	1378	1391
20°	1365	1375	1394
25°	1348	1368	1396
30°	1333	1364	1401
35°	1311	1357	1403
40°	1287	1348	1416
45°	1258	1347	1438
50°	1217	1345	1476
55°	1174	1355	1529
60°	1108	1376	1597
65°	1023	1408	1687
70°	893	1458	1797
75°	725	1533	1857
80°	535	1502	1502
85°	411	1107	1250



TEST NUMBER: P309554

CATALOG NUMBER: 24FCZ2-50-UNV-L82765-HRP-CA125-W2A-U-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.5	3.1
10°-20°	280.0	8.8
20°-30°	426.2	13.4
30°-40°	517.5	16.3
40°-50°	546.8	17.2
50°-60°	515.9	16.3
60°-70°	429.0	13.5
70°-80°	282.2	8.9
80°-90°	76.9	2.4
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°	803.7	25.3
0°-40°	1321.2	41.7
0°-60°	2383.9	75.2
0°-90°	3172.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3172.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1029	1029	1029	1029	1029	
5°	1026	1026	1022	1026	1026	98
15°	987	988	989	999	999	278
25°	908	914	922	938	940	419
35°	798	807	826	847	854	500
45°	661	675	708	742	756	509
55°	501	522	578	632	652	446
65°	321	358	442	507	530	318
75°	139	203	295	349	357	150
85°	27	58	72	80	81	33
90°	0	0	0	0	0	



TEST NUMBER: P309554

CATALOG NUMBER: 24FCZ2-50-UNV-L82765-HRP-CA125-W2A-U-2700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1029.2	1029.2	1029.2	1029.2	1029.2
2.5°	1030.5	1029.2	1023.8	1029.2	1029.2
5°	1026.5	1026.5	1022.5	1026.5	1026.5
7.5°	1019.9	1019.9	1017.2	1022.5	1022.5
10°	1011.9	1011.9	1010.6	1017.2	1017.2
12.5°	999.9	1001.3	999.9	1007.9	1007.9
15°	986.7	988.0	989.3	998.6	998.6
17.5°	969.4	972.1	974.7	985.3	986.7
20°	953.5	954.8	960.1	972.1	973.4
22.5°	932.2	936.2	942.8	954.8	958.8
25°	908.3	913.6	921.6	937.5	940.2
27.5°	885.7	889.7	900.3	917.6	922.9
30°	857.9	864.5	877.8	895.0	901.7
32.5°	831.3	837.9	853.9	872.5	877.8
35°	798.1	807.4	826.0	847.2	853.9
37.5°	766.2	775.5	798.1	822.0	830.0
40°	733.0	743.6	767.6	795.4	806.1
42.5°	697.2	711.8	738.3	768.9	780.8
45°	661.3	674.6	707.8	742.3	755.6
47.5°	622.8	638.7	674.6	715.8	731.7
50°	581.6	601.6	642.7	687.9	705.1
52.5°	540.5	563.0	609.5	660.0	678.6
55°	500.6	521.9	577.7	632.1	652.0
57.5°	456.8	483.4	544.5	602.9	622.8
60°	411.7	440.9	511.3	572.3	593.6
62.5°	366.5	399.7	479.4	540.5	563.0
65°	321.4	358.5	442.2	507.3	529.9
67.5°	277.5	318.7	407.7	472.7	495.3
70°	227.1	278.9	370.5	434.2	456.8
72.5°	180.6	240.4	334.6	394.4	414.3
75°	139.4	203.2	294.8	349.2	357.2
77.5°	102.3	166.0	253.6	272.2	273.6
80°	69.1	132.8	193.9	191.2	193.9
82.5°	45.2	99.6	122.2	136.8	138.1
85°	26.6	58.4	71.7	79.7	81.0
87.5°	13.3	19.9	25.2	26.6	29.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)