

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: P310189

Luminaire Tested: **24FCZ2-50HE-UNV-L82765-RDP-CA125-W2A-U-5000K**

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: P310189
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-L82765-RDP-CA125-W2A-U-5000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (336) 5000K 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: 3171.0 lumens
Efficiency: N/A
Efficacy: 80.7 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

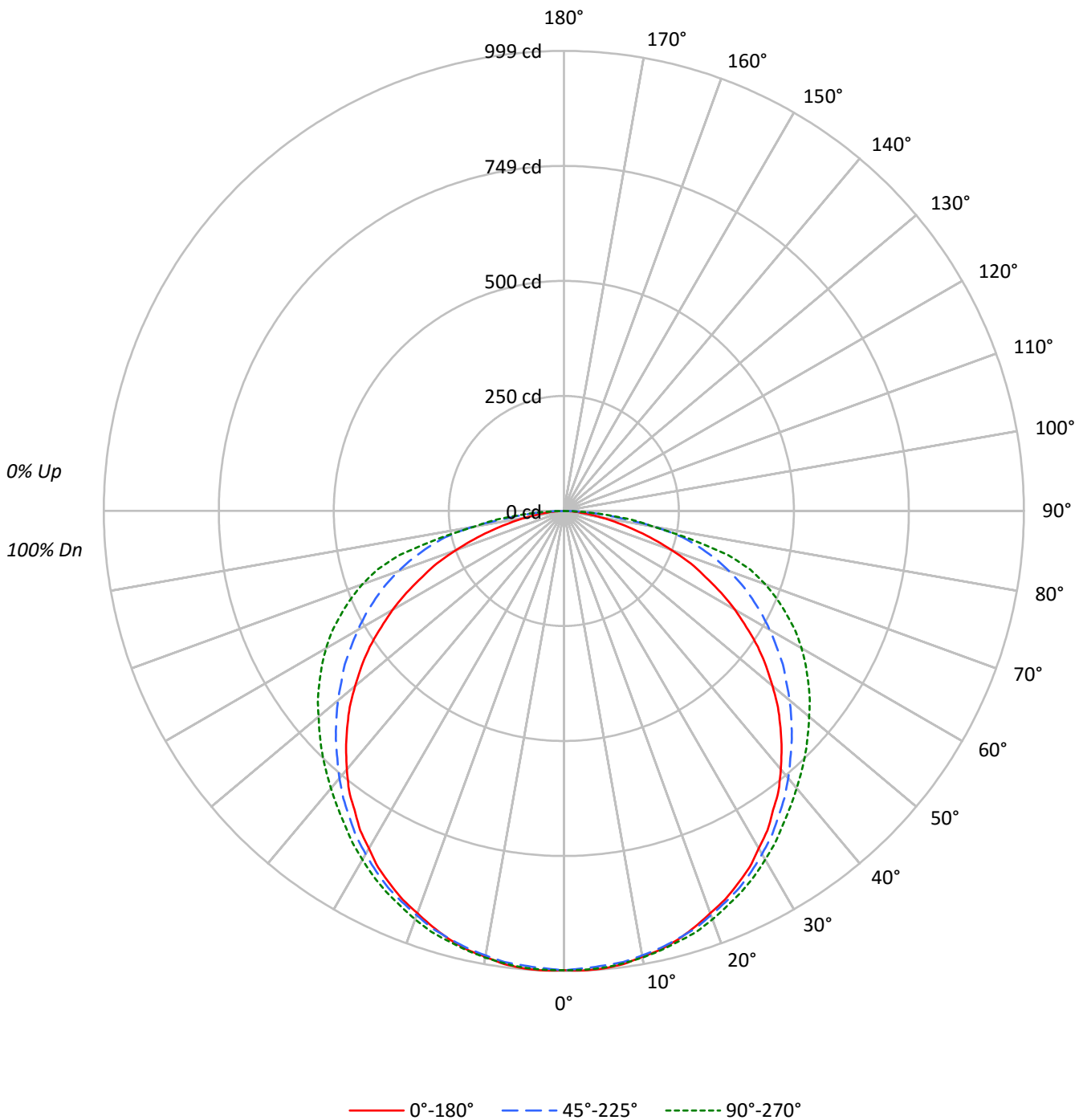
Input Watts (W): 39.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P310189

CATALOG NUMBER: 24FCZ2-50HE-UNV-L82765-RDP-CA125-W2A-U-5000K

Luminous Intensity Polar Plot





TEST NUMBER: P310189

CATALOG NUMBER: 24FCZ2-50HE-UNV-L82765-RDP-CA125-W2A-U-5000K

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°	1342	1342	1342
5°	1347	1338	1345
10°	1343	1339	1345
15°	1341	1339	1347
20°	1331	1338	1351
25°	1326	1340	1354
30°	1315	1337	1359
35°	1302	1333	1364
40°	1287	1332	1381
45°	1266	1332	1413
50°	1238	1340	1455
55°	1206	1361	1520
60°	1156	1388	1604
65°	1082	1437	1703
70°	984	1504	1832
75°	834	1586	1913
80°	658	1596	1548
85°	486	1213	1360



TEST NUMBER: P310189

CATALOG NUMBER: 24FCZ2-50HE-UNV-L82765-RDP-CA125-W2A-U-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.6	3.0
10°-20°	272.2	8.6
20°-30°	416.3	13.1
30°-40°	508.9	16.0
40°-50°	542.4	17.1
50°-60°	518.6	16.4
60°-70°	439.3	13.9
70°-80°	295.3	9.3
80°-90°	83.3	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°	783.1	24.7
0°-40°	1292.1	40.7
0°-60°	2353.1	74.2
0°-90°	3171.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3171.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	997	997	997	997	997	
5°	997	996	991	996	996	95
15°	963	963	961	969	967	271
25°	893	896	903	911	912	412
35°	793	799	812	827	830	497
45°	665	676	700	730	742	513
55°	514	533	580	626	648	458
65°	340	374	451	511	535	337
75°	160	219	305	357	368	172
85°	32	64	79	85	88	39
90°	0	0	0	0	0	



TEST NUMBER: P310189

CATALOG NUMBER: 24FCZ2-50HE-UNV-L82765-RDP-CA125-W2A-U-5000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	997.2	997.2	997.2	997.2	997.2
2.5°	998.8	998.8	994.0	997.2	997.2
5°	997.2	995.6	990.9	995.6	995.6
7.5°	992.5	990.9	987.8	992.5	990.9
10°	983.0	983.0	979.9	984.6	984.6
12.5°	975.2	973.6	972.0	978.3	976.7
15°	962.6	962.6	961.0	968.9	967.3
17.5°	946.9	948.4	950.0	956.3	957.9
20°	929.6	932.7	934.3	943.7	943.7
22.5°	913.8	915.4	918.5	928.0	928.0
25°	893.4	896.5	902.8	910.7	912.3
27.5°	872.9	874.5	882.4	893.4	895.0
30°	846.2	850.9	860.4	872.9	874.5
32.5°	822.6	827.3	838.3	850.9	854.1
35°	792.7	799.0	811.6	827.3	830.5
37.5°	766.0	770.7	786.4	803.7	808.4
40°	732.9	742.4	758.1	778.6	786.4
42.5°	699.9	709.4	728.2	755.0	764.4
45°	665.3	676.3	699.9	729.8	742.4
47.5°	630.7	643.3	670.0	704.6	718.8
50°	591.4	607.1	640.2	679.5	695.2
52.5°	553.6	572.5	608.7	652.7	673.2
55°	514.3	533.2	580.4	626.0	648.0
57.5°	470.3	495.4	547.4	599.3	622.8
60°	429.4	453.0	515.9	572.5	596.1
62.5°	385.3	416.8	484.4	544.2	567.8
65°	339.7	374.3	451.4	511.2	534.8
67.5°	298.8	336.6	418.4	478.1	501.7
70°	250.1	297.3	382.2	442.0	465.6
72.5°	204.5	256.4	344.5	402.7	424.7
75°	160.4	218.6	305.1	357.0	368.0
77.5°	119.5	180.9	264.2	286.3	278.4
80°	84.9	144.7	206.0	195.0	199.8
82.5°	55.0	110.1	127.4	144.7	149.4
85°	31.5	64.5	78.6	84.9	88.1
87.5°	14.2	23.6	31.5	31.5	29.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)