

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: P310277

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-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: P310277
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: 24FCZ2-55HE-UNV-L82765-RDP-CA125-W2A-U-4000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (336) 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: 3394.0 lumens
Efficiency: N/A
Efficacy: 77.8 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

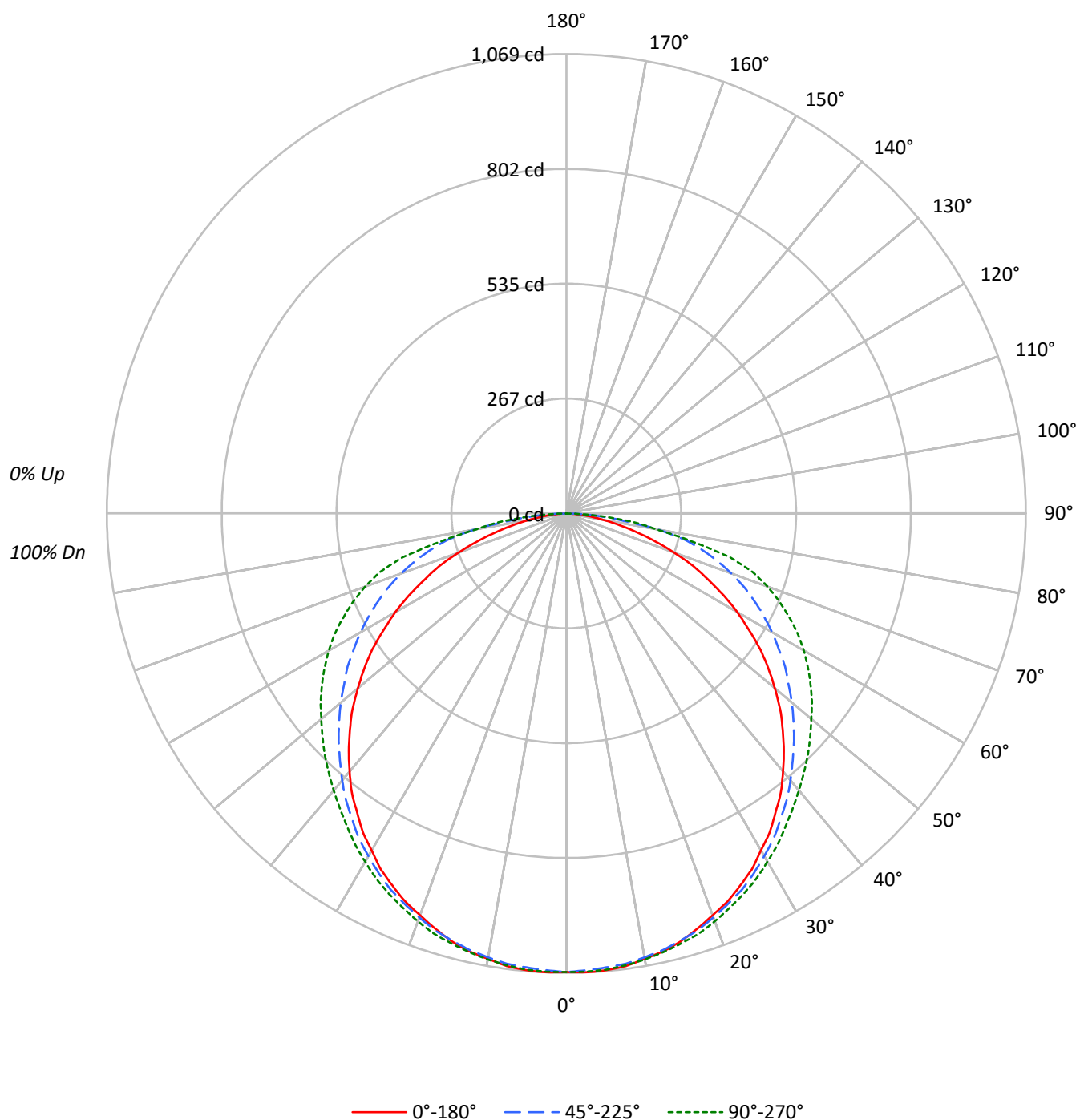
Input Watts (W): 43.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P310277

CATALOG NUMBER: 24FCZ2-55HE-UNV-L82765-RDP-CA125-W2A-U-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P310277

CATALOG NUMBER: 24FCZ2-55HE-UNV-L82765-RDP-CA125-W2A-U-4000K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				0
RW	70	50	30	10	70	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		100
1	108	103	98	94	105	100	96	92	96	93	89		92	89	87		82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		67
3	88	77	68	62	86	76	67	61	72	66	60		70	64	59		56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		27
9	55	41	33	27	53	40	32	27	39	32	27		38	31	26		24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1436	1436	1436
5°	1442	1432	1439
10°	1438	1433	1440
15°	1435	1433	1442
20°	1425	1432	1446
25°	1420	1435	1450
30°	1407	1431	1454
35°	1394	1427	1460
40°	1378	1425	1478
45°	1355	1425	1512
50°	1325	1434	1558
55°	1291	1457	1627
60°	1237	1486	1717
65°	1158	1538	1822
70°	1053	1609	1960
75°	893	1698	2048
80°	704	1709	1657
85°	520	1300	1456



TEST NUMBER: P310277

CATALOG NUMBER: 24FCZ2-55HE-UNV-L82765-RDP-CA125-W2A-U-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.2	3.0
10°-20°	291.4	8.6
20°-30°	445.6	13.1
30°-40°	544.7	16.0
40°-50°	580.6	17.1
50°-60°	555.1	16.4
60°-70°	470.2	13.9
70°-80°	316.0	9.3
80°-90°	89.2	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°	838.2	24.7
0°-40°	1382.9	40.7
0°-60°	2518.6	74.2
0°-90°	3394.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3394.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1067	1067	1067	1067	1067	
5°	1067	1066	1061	1066	1066	101
15°	1030	1030	1029	1037	1035	290
25°	956	960	966	975	976	441
35°	848	855	869	886	889	532
45°	712	724	749	781	795	549
55°	550	571	621	670	694	490
65°	364	401	483	547	572	361
75°	172	234	327	382	394	184
85°	34	69	84	91	94	42
90°	0	0	0	0	0	



TEST NUMBER: P310277

CATALOG NUMBER: 24FCZ2-55HE-UNV-L82765-RDP-CA125-W2A-U-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1067.3	1067.3	1067.3	1067.3	1067.3
2.5°	1069.0	1069.0	1063.9	1067.3	1067.3
5°	1067.3	1065.6	1060.6	1065.6	1065.6
7.5°	1062.3	1060.6	1057.2	1062.3	1060.6
10°	1052.2	1052.2	1048.8	1053.8	1053.8
12.5°	1043.7	1042.1	1040.4	1047.1	1045.4
15°	1030.3	1030.3	1028.6	1037.0	1035.3
17.5°	1013.4	1015.1	1016.8	1023.5	1025.2
20°	994.9	998.3	1000.0	1010.1	1010.1
22.5°	978.1	979.8	983.1	993.2	993.2
25°	956.2	959.6	966.3	974.7	976.4
27.5°	934.3	936.0	944.4	956.2	957.9
30°	905.7	910.8	920.9	934.3	936.0
32.5°	880.5	885.5	897.3	910.8	914.1
35°	848.5	855.2	868.7	885.5	888.9
37.5°	819.8	824.9	841.7	860.3	865.3
40°	784.5	794.6	811.4	833.3	841.7
42.5°	749.1	759.2	779.4	808.1	818.2
45°	712.1	723.9	749.1	781.1	794.6
47.5°	675.1	688.5	717.2	754.2	769.3
50°	633.0	649.8	685.2	727.3	744.1
52.5°	592.6	612.8	651.5	698.6	720.5
55°	550.5	570.7	621.2	670.0	693.6
57.5°	503.4	530.3	585.8	641.4	666.7
60°	459.6	484.8	552.2	612.8	638.0
62.5°	412.4	446.1	518.5	582.5	607.7
65°	363.6	400.7	483.2	547.1	572.4
67.5°	319.9	360.3	447.8	511.8	537.0
70°	267.7	318.2	409.1	473.1	498.3
72.5°	218.9	274.4	368.7	431.0	454.5
75°	171.7	234.0	326.6	382.1	393.9
77.5°	127.9	193.6	282.8	306.4	298.0
80°	90.9	154.9	220.5	208.7	213.8
82.5°	58.9	117.8	136.4	154.9	159.9
85°	33.7	69.0	84.2	90.9	94.3
87.5°	15.2	25.3	33.7	33.7	32.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)