

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: P310278

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-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: P310278
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-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: 3454.0 lumens
Efficiency: N/A
Efficacy: 78.7 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

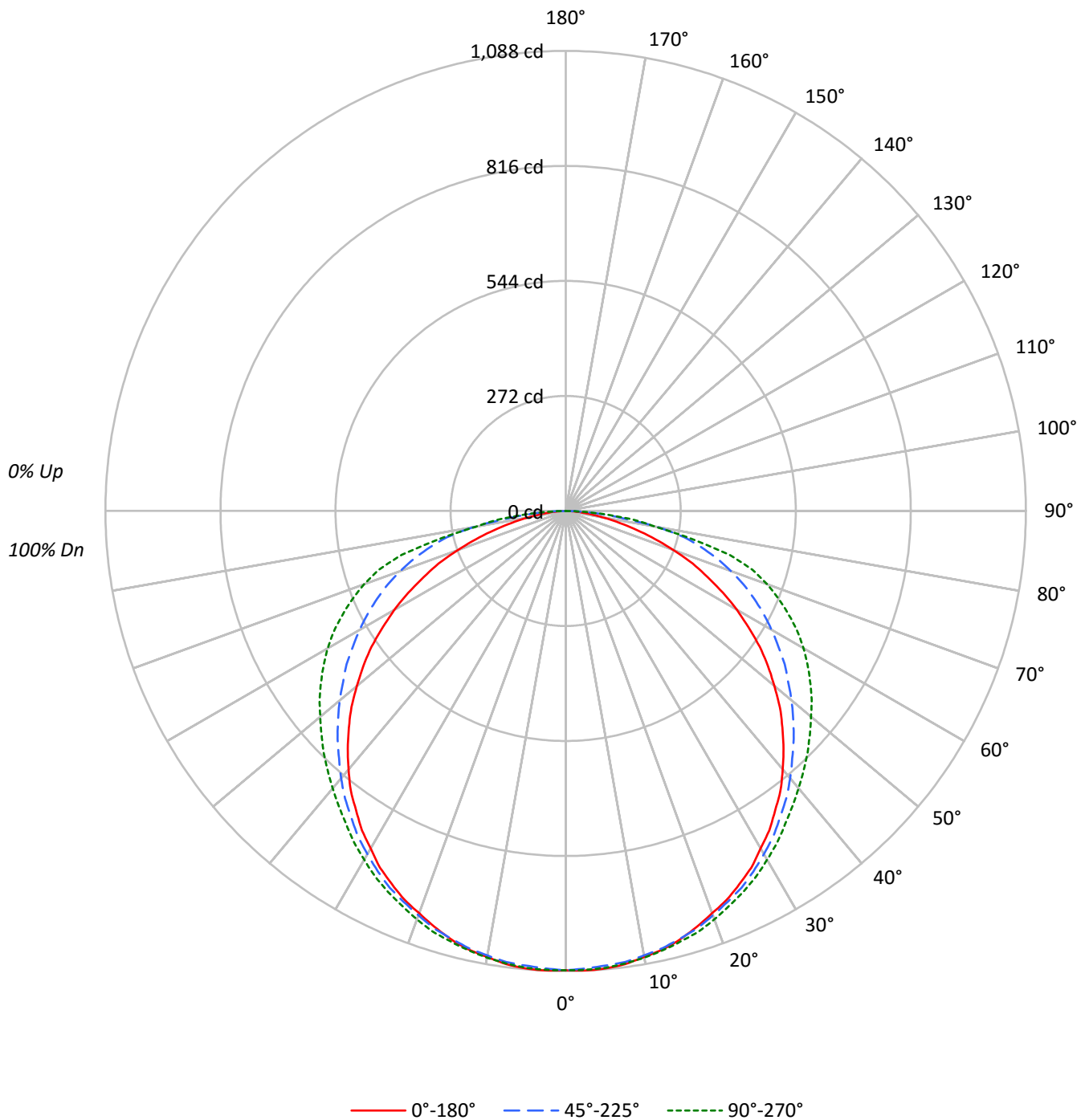
Input Watts (W): 43.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P310278

CATALOG NUMBER: 24FCZ2-55HE-UNV-L82765-RDP-CA125-W2A-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P310278

CATALOG NUMBER: 24FCZ2-55HE-UNV-L82765-RDP-CA125-W2A-U-4500K

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°	1461	1461	1461
5°	1467	1458	1465
10°	1463	1458	1465
15°	1461	1458	1468
20°	1450	1457	1472
25°	1445	1460	1475
30°	1432	1456	1480
35°	1418	1452	1486
40°	1402	1450	1505
45°	1379	1451	1539
50°	1348	1460	1585
55°	1314	1483	1656
60°	1259	1512	1747
65°	1178	1565	1855
70°	1072	1638	1995
75°	908	1728	2084
80°	717	1739	1686
85°	530	1323	1480



TEST NUMBER: P310278

CATALOG NUMBER: 24FCZ2-55HE-UNV-L82765-RDP-CA125-W2A-U-4500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.0	3.0
10°-20°	296.5	8.6
20°-30°	453.5	13.1
30°-40°	554.4	16.0
40°-50°	590.8	17.1
50°-60°	564.9	16.4
60°-70°	478.5	13.9
70°-80°	321.6	9.3
80°-90°	90.7	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°	853.0	24.7
0°-40°	1407.4	40.7
0°-60°	2563.1	74.2
0°-90°	3454.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3454.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1086	1086	1086	1086	1086	
5°	1086	1084	1079	1084	1084	103
15°	1048	1048	1047	1055	1054	296
25°	973	976	983	992	994	448
35°	864	870	884	901	905	541
45°	725	737	762	795	809	559
55°	560	581	632	682	706	499
65°	370	408	492	557	582	367
75°	175	238	332	389	401	187
85°	34	70	86	92	96	42
90°	0	0	0	0	0	



TEST NUMBER: P310278

CATALOG NUMBER: 24FCZ2-55HE-UNV-L82765-RDP-CA125-W2A-U-4500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1086.2	1086.2	1086.2	1086.2	1086.2
2.5°	1087.9	1087.9	1082.8	1086.2	1086.2
5°	1086.2	1084.5	1079.3	1084.5	1084.5
7.5°	1081.0	1079.3	1075.9	1081.0	1079.3
10°	1070.8	1070.8	1067.3	1072.5	1072.5
12.5°	1062.2	1060.5	1058.8	1065.6	1063.9
15°	1048.5	1048.5	1046.8	1055.3	1053.6
17.5°	1031.4	1033.1	1034.8	1041.6	1043.4
20°	1012.5	1015.9	1017.7	1027.9	1027.9
22.5°	995.4	997.1	1000.5	1010.8	1010.8
25°	973.1	976.5	983.4	992.0	993.7
27.5°	950.8	952.6	961.1	973.1	974.8
30°	921.7	926.9	937.1	950.8	952.6
32.5°	896.0	901.2	913.1	926.9	930.3
35°	863.5	870.3	884.0	901.2	904.6
37.5°	834.3	839.5	856.6	875.5	880.6
40°	798.4	808.6	825.8	848.0	856.6
42.5°	762.4	772.7	793.2	822.3	832.6
45°	724.7	736.7	762.4	794.9	808.6
47.5°	687.0	700.7	729.8	767.5	782.9
50°	644.2	661.3	697.3	740.1	757.2
52.5°	603.1	623.6	663.0	711.0	733.3
55°	560.2	580.8	632.2	681.9	705.8
57.5°	512.3	539.7	596.2	652.7	678.4
60°	467.7	493.4	561.9	623.6	649.3
62.5°	419.7	454.0	527.7	592.8	618.5
65°	370.1	407.7	491.7	556.8	582.5
67.5°	325.5	366.6	455.7	520.8	546.5
70°	272.4	323.8	416.3	481.4	507.1
72.5°	222.7	279.3	375.2	438.6	462.6
75°	174.7	238.1	332.4	388.9	400.9
77.5°	130.2	197.0	287.8	311.8	303.2
80°	92.5	157.6	224.4	212.4	217.6
82.5°	60.0	119.9	138.8	157.6	162.8
85°	34.3	70.2	85.7	92.5	95.9
87.5°	15.4	25.7	34.3	34.3	32.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)