

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: P309923

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-RDP-CP125-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: P309923
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: 24FCZ2-35HE-UNV-L82765-RDP-CP125-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (336) 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: 1940.0 lumens
Efficiency: N/A
Efficacy: 74.6 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

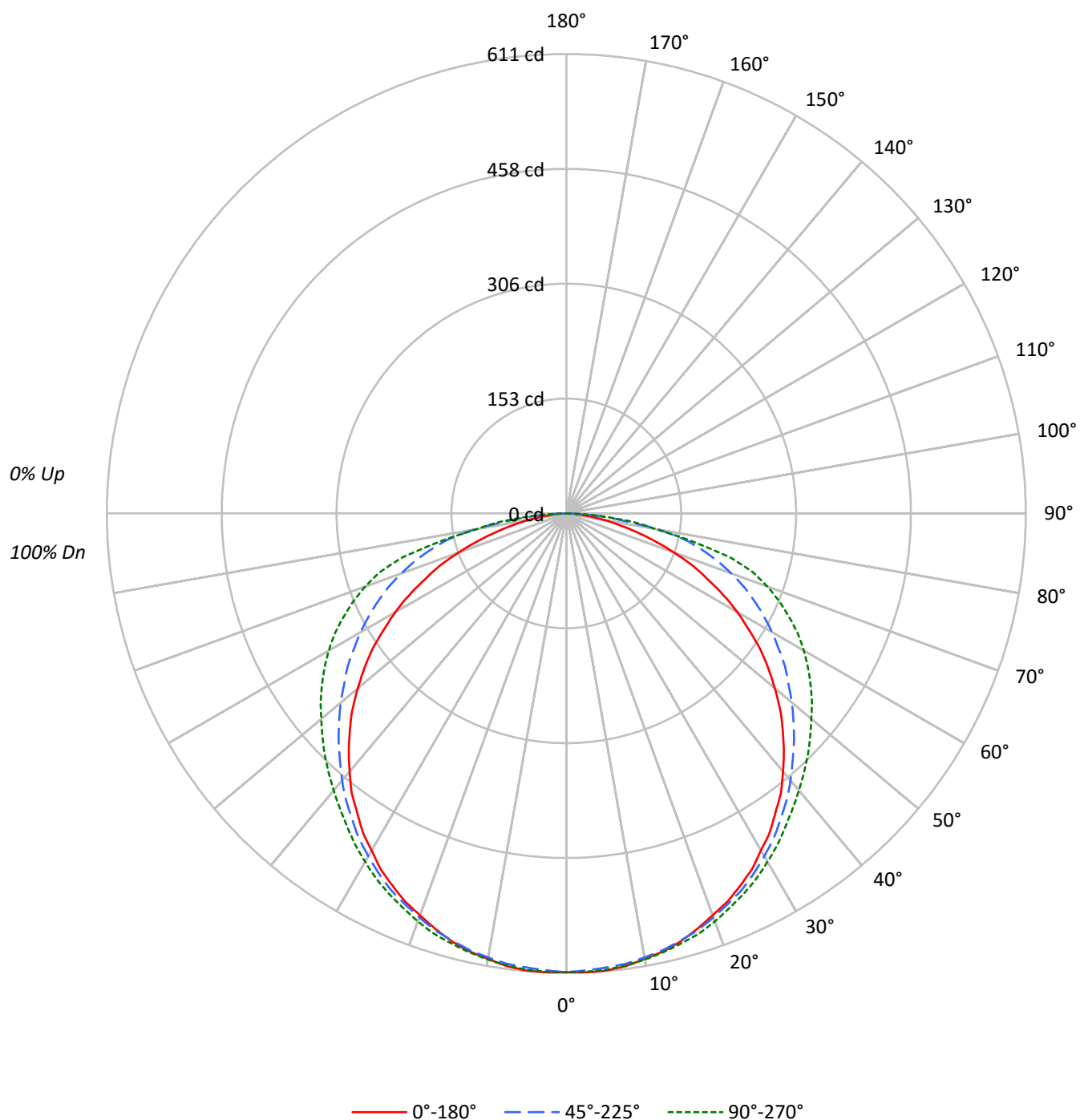
Input Watts (W): 26
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P309923

CATALOG NUMBER: 24FCZ2-35HE-UNV-L82765-RDP-CP125-W2A-U-2700K

Luminous Intensity Polar Plot





TEST NUMBER: P309923

CATALOG NUMBER: 24FCZ2-35HE-UNV-L82765-RDP-CP125-W2A-U-2700K

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	68	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°	821	821	821
5°	824	819	823
10°	822	819	823
15°	820	819	824
20°	814	818	827
25°	811	820	829
30°	804	818	831
35°	797	816	835
40°	788	815	845
45°	774	815	864
50°	757	820	890
55°	738	833	930
60°	707	849	981
65°	662	879	1042
70°	602	920	1120
75°	510	971	1171
80°	403	977	947
85°	296	743	832



TEST NUMBER: P309923

CATALOG NUMBER: 24FCZ2-35HE-UNV-L82765-RDP-CP125-W2A-U-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.9	3.0
10°-20°	166.6	8.6
20°-30°	254.7	13.1
30°-40°	311.4	16.0
40°-50°	331.8	17.1
50°-60°	317.3	16.4
60°-70°	268.8	13.9
70°-80°	180.6	9.3
80°-90°	51.0	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°	479.1	24.7
0°-40°	790.5	40.7
0°-60°	1439.6	74.2
0°-90°	1940.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1940.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	610	610	610	610	610	
5°	610	609	606	609	609	58
15°	589	589	588	593	592	166
25°	547	548	552	557	558	252
35°	485	489	496	506	508	304
45°	407	414	428	446	454	314
55°	315	326	355	383	396	280
65°	208	229	276	313	327	206
75°	98	134	187	218	225	105
85°	19	40	48	52	54	24
90°	0	0	0	0	0	



TEST NUMBER: P309923

CATALOG NUMBER: 24FCZ2-35HE-UNV-L82765-RDP-CP125-W2A-U-2700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	610.1	610.1	610.1	610.1	610.1
2.5°	611.0	611.0	608.2	610.1	610.1
5°	610.1	609.1	606.2	609.1	609.1
7.5°	607.2	606.2	604.3	607.2	606.2
10°	601.4	601.4	599.5	602.4	602.4
12.5°	596.6	595.6	594.7	598.5	597.6
15°	588.9	588.9	587.9	592.8	591.8
17.5°	579.3	580.2	581.2	585.1	586.0
20°	568.7	570.6	571.6	577.4	577.4
22.5°	559.1	560.0	562.0	567.7	567.7
25°	546.6	548.5	552.3	557.2	558.1
27.5°	534.1	535.0	539.8	546.6	547.5
30°	517.7	520.6	526.4	534.1	535.0
32.5°	503.3	506.2	512.9	520.6	522.5
35°	485.0	488.8	496.5	506.2	508.1
37.5°	468.6	471.5	481.1	491.7	494.6
40°	448.4	454.2	463.8	476.3	481.1
42.5°	428.2	434.0	445.5	461.9	467.7
45°	407.0	413.8	428.2	446.5	454.2
47.5°	385.9	393.6	409.9	431.1	439.8
50°	361.8	371.4	391.6	415.7	425.3
52.5°	338.7	350.3	372.4	399.3	411.8
55°	314.7	326.2	355.1	383.0	396.5
57.5°	287.7	303.1	334.9	366.6	381.1
60°	262.7	277.1	315.6	350.3	364.7
62.5°	235.8	255.0	296.4	332.9	347.4
65°	207.8	229.0	276.2	312.7	327.2
67.5°	182.8	205.9	256.0	292.5	307.0
70°	153.0	181.9	233.8	270.4	284.8
72.5°	125.1	156.8	210.7	246.3	259.8
75°	98.2	133.8	186.7	218.4	225.2
77.5°	73.1	110.7	161.7	175.1	170.3
80°	52.0	88.5	126.1	119.3	122.2
82.5°	33.7	67.4	77.9	88.5	91.4
85°	19.2	39.5	48.1	52.0	53.9
87.5°	8.7	14.4	19.2	19.2	18.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)