

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: P309195

Luminaire Tested: **24FCZ2-30-UNV-L82765-HRP-CA125-W2A-U-3000K**

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: P309195
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: 24FCZ2-30-UNV-L82765-HRP-CA125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 3000K 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: 1979.0 lumens
Efficiency: N/A
Efficacy: 85.3 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

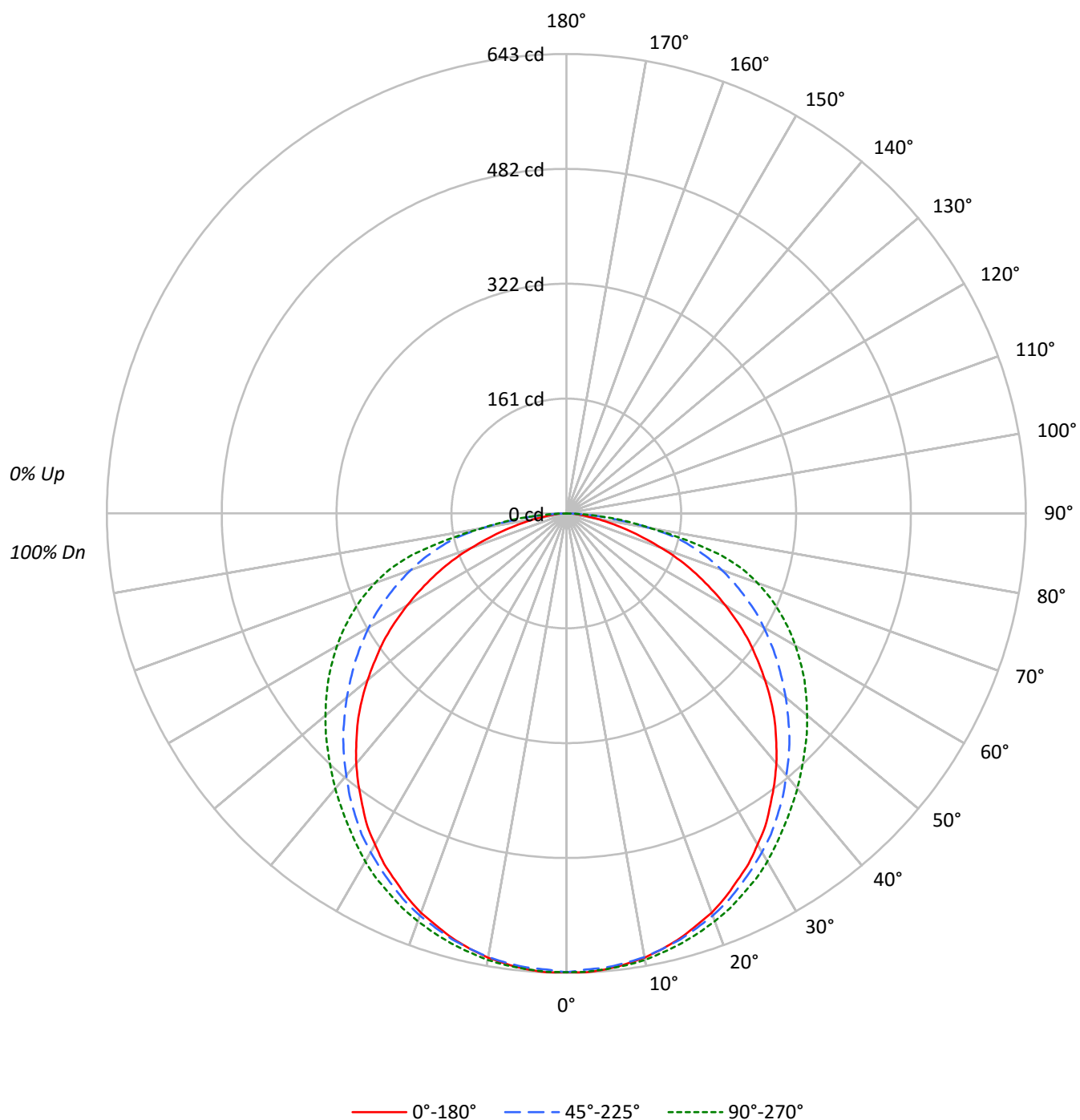
Input Watts (W): 23.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P309195

CATALOG NUMBER: 24FCZ2-30-UNV-L82765-HRP-CA125-W2A-U-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P309195

CATALOG NUMBER: 24FCZ2-30-UNV-L82765-HRP-CA125-W2A-U-3000K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	864	864	864
5°	865	862	865
10°	863	861	867
15°	858	860	868
20°	852	858	870
25°	841	854	871
30°	832	851	874
35°	818	846	875
40°	803	841	883
45°	785	840	897
50°	760	839	921
55°	733	845	954
60°	691	858	996
65°	638	878	1053
70°	557	910	1121
75°	452	956	1159
80°	334	938	938
85°	256	690	780



TEST NUMBER: P309195

CATALOG NUMBER: 24FCZ2-30-UNV-L82765-HRP-CA125-W2A-U-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.8	3.1
10°-20°	174.7	8.8
20°-30°	265.9	13.4
30°-40°	322.9	16.3
40°-50°	341.1	17.2
50°-60°	321.9	16.3
60°-70°	267.6	13.5
70°-80°	176.1	8.9
80°-90°	48.0	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°	501.4	25.3
0°-40°	824.3	41.7
0°-60°	1487.3	75.2
0°-90°	1979.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1979.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	642	642	642	642	642	
5°	640	640	638	640	640	61
15°	616	616	617	623	623	174
25°	567	570	575	585	587	261
35°	498	504	515	529	533	312
45°	413	421	442	463	471	318
55°	312	326	360	394	407	278
65°	200	224	276	316	331	198
75°	87	127	184	218	223	94
85°	17	36	45	50	50	20
90°	0	0	0	0	0	



TEST NUMBER: P309195

CATALOG NUMBER: 24FCZ2-30-UNV-L82765-HRP-CA125-W2A-U-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	642.1	642.1	642.1	642.1	642.1
2.5°	642.9	642.1	638.8	642.1	642.1
5°	640.4	640.4	637.9	640.4	640.4
7.5°	636.3	636.3	634.6	637.9	637.9
10°	631.3	631.3	630.5	634.6	634.6
12.5°	623.9	624.7	623.9	628.8	628.8
15°	615.6	616.4	617.2	623.0	623.0
17.5°	604.8	606.5	608.1	614.7	615.6
20°	594.9	595.7	599.0	606.5	607.3
22.5°	581.6	584.1	588.2	595.7	598.2
25°	566.7	570.0	575.0	584.9	586.6
27.5°	552.6	555.1	561.7	572.5	575.8
30°	535.2	539.4	547.6	558.4	562.6
32.5°	518.6	522.8	532.7	544.3	547.6
35°	497.9	503.7	515.3	528.6	532.7
37.5°	478.0	483.8	497.9	512.8	517.8
40°	457.3	464.0	478.9	496.3	502.9
42.5°	435.0	444.1	460.6	479.7	487.2
45°	412.6	420.9	441.6	463.1	471.4
47.5°	388.6	398.5	420.9	446.6	456.5
50°	362.9	375.3	401.0	429.2	439.9
52.5°	337.2	351.3	380.3	411.8	423.4
55°	312.3	325.6	360.4	394.4	406.8
57.5°	285.0	301.6	339.7	376.1	388.6
60°	256.8	275.1	319.0	357.1	370.3
62.5°	228.7	249.4	299.1	337.2	351.3
65°	200.5	223.7	275.9	316.5	330.6
67.5°	173.2	198.8	254.3	294.9	309.0
70°	141.7	174.0	231.2	270.9	285.0
72.5°	112.7	150.0	208.8	246.1	258.5
75°	87.0	126.8	183.9	217.9	222.9
77.5°	63.8	103.6	158.2	169.8	170.7
80°	43.1	82.9	121.0	119.3	121.0
82.5°	28.2	62.1	76.2	85.3	86.2
85°	16.6	36.5	44.7	49.7	50.5
87.5°	8.3	12.4	15.7	16.6	18.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)