

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: P309832

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-RDP-CA125-W2A-U-6500K**

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: P309832
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: 24FCZ2-30HE-UNV-L82765-RDP-CA125-W2A-U-6500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (336) 6500K 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: 1966.0 lumens
Efficiency: N/A
Efficacy: 89.4 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

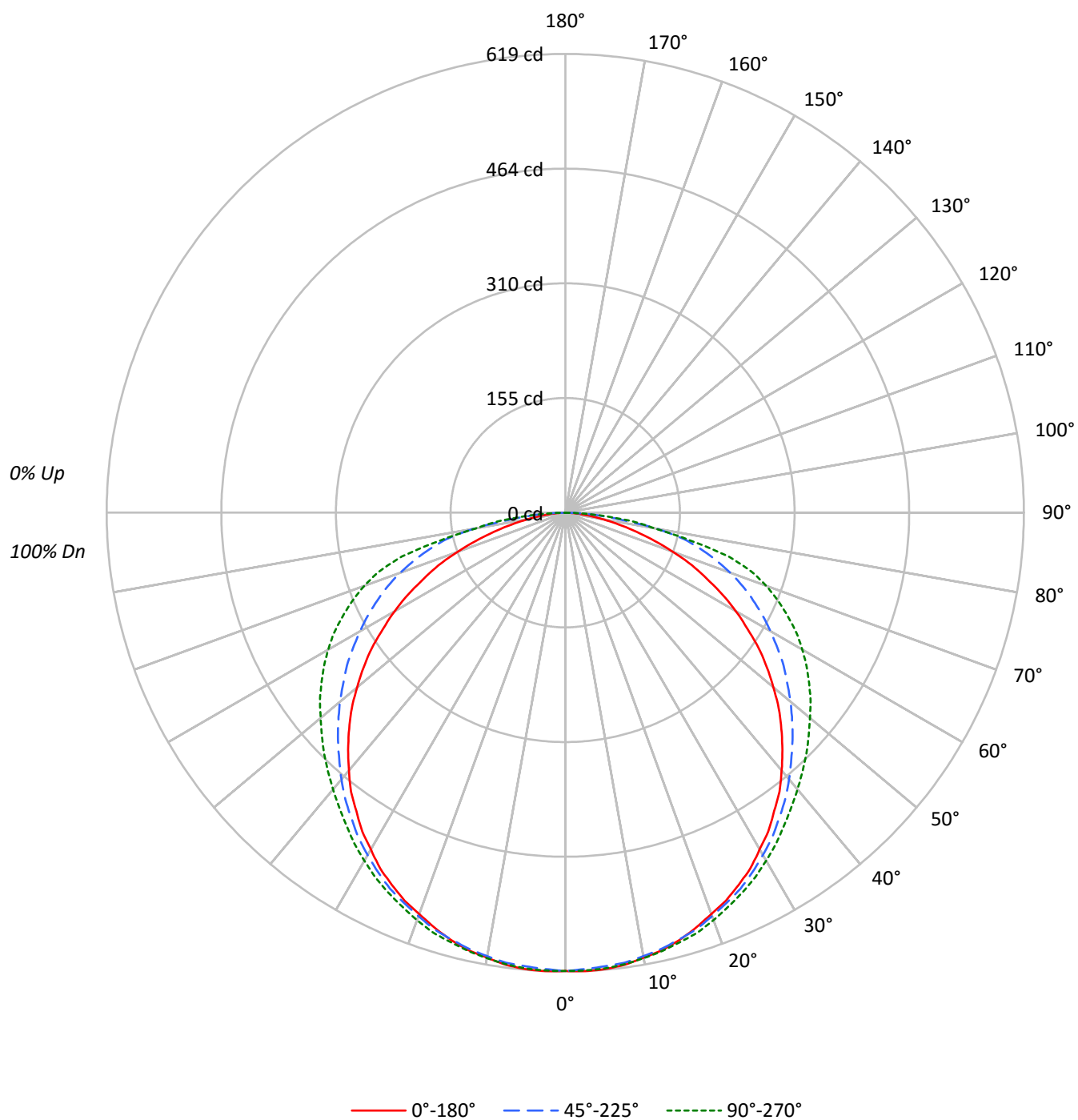
Input Watts (W): 22
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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°	832	832	832
5°	835	830	834
10°	833	830	834
15°	831	830	835
20°	825	829	838
25°	822	831	840
30°	815	829	842
35°	807	827	846
40°	798	826	856
45°	785	826	876
50°	768	831	902
55°	748	844	943
60°	716	861	995
65°	670	891	1056
70°	610	932	1135
75°	517	984	1186
80°	408	989	959
85°	301	753	843



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.6	3.0
10°-20°	168.8	8.6
20°-30°	258.1	13.1
30°-40°	315.5	16.0
40°-50°	336.3	17.1
50°-60°	321.6	16.4
60°-70°	272.4	13.9
70°-80°	183.1	9.3
80°-90°	51.6	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°	485.5	24.7
0°-40°	801.1	40.7
0°-60°	1458.9	74.2
0°-90°	1966.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1966.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	618	618	618	618	618	
5°	618	617	614	617	617	59
15°	597	597	596	601	600	168
25°	554	556	560	565	566	255
35°	492	495	503	513	515	308
45°	412	419	434	452	460	318
55°	319	331	360	388	402	284
65°	211	232	280	317	332	209
75°	100	136	189	221	228	107
85°	20	40	49	53	55	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	618.3	618.3	618.3	618.3	618.3
2.5°	619.2	619.2	616.3	618.3	618.3
5°	618.3	617.3	614.4	617.3	617.3
7.5°	615.3	614.4	612.4	615.3	614.4
10°	609.5	609.5	607.5	610.4	610.4
12.5°	604.6	603.6	602.6	606.5	605.6
15°	596.8	596.8	595.8	600.7	599.7
17.5°	587.0	588.0	589.0	592.9	593.9
20°	576.3	578.3	579.2	585.1	585.1
22.5°	566.6	567.5	569.5	575.3	575.3
25°	553.9	555.8	559.7	564.6	565.6
27.5°	541.2	542.2	547.1	553.9	554.9
30°	524.6	527.6	533.4	541.2	542.2
32.5°	510.0	512.9	519.8	527.6	529.5
35°	491.5	495.4	503.2	512.9	514.9
37.5°	474.9	477.8	487.6	498.3	501.2
40°	454.4	460.3	470.0	482.7	487.6
42.5°	433.9	439.8	451.5	468.1	473.9
45°	412.5	419.3	433.9	452.5	460.3
47.5°	391.0	398.8	415.4	436.9	445.6
50°	366.7	376.4	396.9	421.3	431.0
52.5°	343.3	355.0	377.4	404.7	417.4
55°	318.9	330.6	359.8	388.1	401.8
57.5°	291.6	307.2	339.4	371.5	386.2
60°	266.2	280.8	319.9	355.0	369.6
62.5°	238.9	258.4	300.3	337.4	352.0
65°	210.6	232.1	279.9	316.9	331.6
67.5°	185.3	208.7	259.4	296.4	311.1
70°	155.1	184.3	237.0	274.0	288.6
72.5°	126.8	159.0	213.6	249.6	263.3
75°	99.5	135.5	189.2	221.4	228.2
77.5°	74.1	112.1	163.8	177.5	172.6
80°	52.7	89.7	127.7	120.9	123.8
82.5°	34.1	68.3	79.0	89.7	92.6
85°	19.5	40.0	48.8	52.7	54.6
87.5°	8.8	14.6	19.5	19.5	18.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)