

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: P309834

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-RDP-CP125-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: P309834
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-CP125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (336) 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: 1741.0 lumens
Efficiency: N/A
Efficacy: 82.9 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

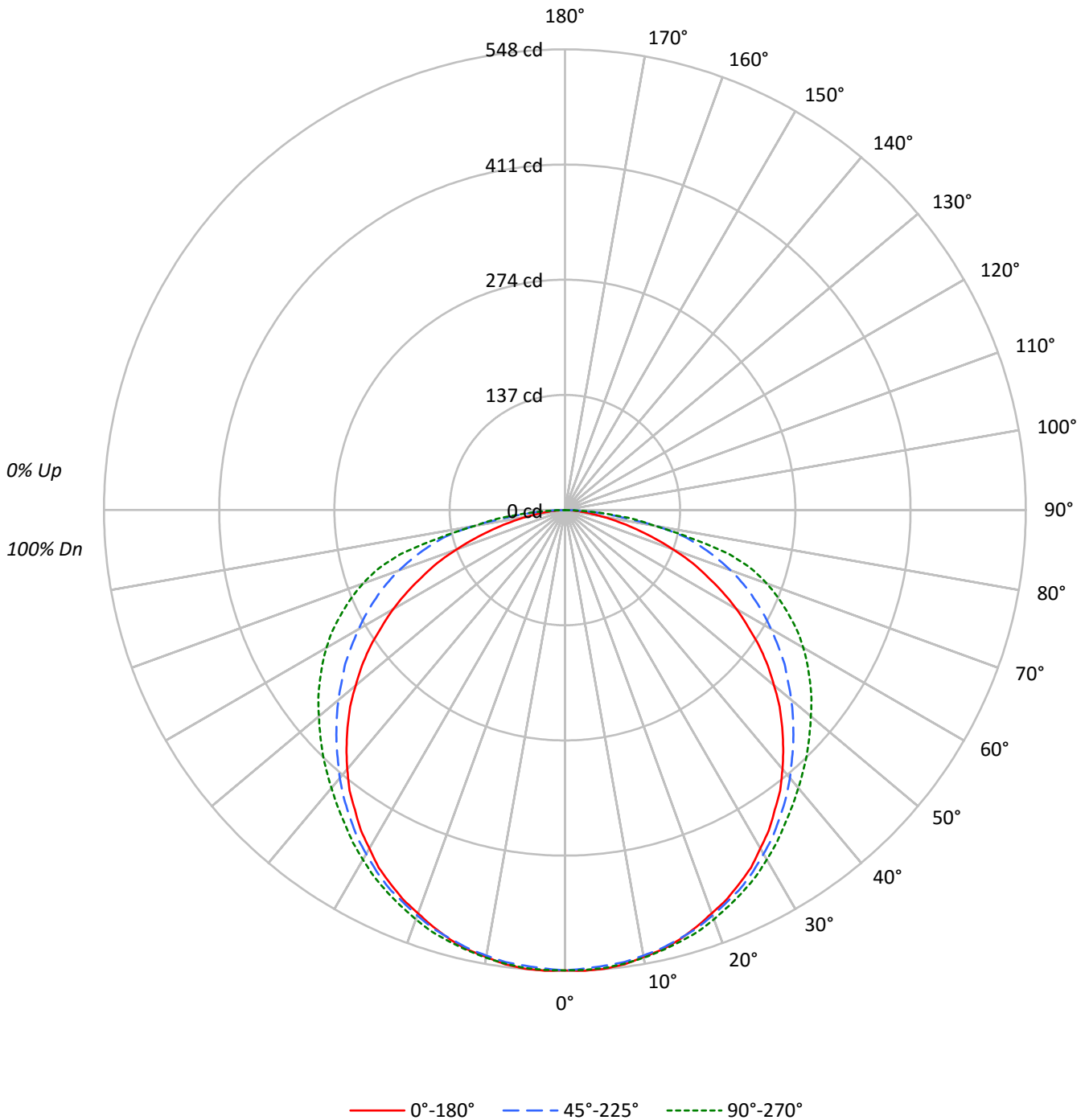
Input Watts (W): 21
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				10	0
RW	70	50	30	10	70	50	30	10	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	102	102	102	100
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	68	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	737	737	737
5°	739	735	738
10°	737	735	739
15°	736	735	740
20°	731	735	742
25°	728	736	744
30°	722	734	746
35°	715	732	749
40°	707	731	758
45°	695	731	776
50°	680	736	799
55°	662	748	835
60°	635	762	881
65°	594	789	935
70°	540	825	1006
75°	458	871	1051
80°	361	876	850
85°	267	667	747



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.9	3.0
10°-20°	149.5	8.6
20°-30°	228.6	13.1
30°-40°	279.4	16.0
40°-50°	297.8	17.1
50°-60°	284.7	16.4
60°-70°	241.2	13.9
70°-80°	162.1	9.3
80°-90°	45.7	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°	430.0	24.7
0°-40°	709.4	40.7
0°-60°	1292.0	74.2
0°-90°	1741.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1741.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	548	548	548	548	548	
5°	548	547	544	547	547	52
15°	528	528	528	532	531	149
25°	490	492	496	500	501	226
35°	435	439	446	454	456	273
45°	365	371	384	401	408	282
55°	282	293	319	344	356	252
65°	186	206	248	281	294	185
75°	88	120	168	196	202	94
85°	17	35	43	47	48	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	547.5	547.5	547.5	547.5	547.5
2.5°	548.4	548.4	545.8	547.5	547.5
5°	547.5	546.6	544.0	546.6	546.6
7.5°	544.9	544.0	542.3	544.9	544.0
10°	539.7	539.7	538.0	540.6	540.6
12.5°	535.4	534.5	533.7	537.1	536.3
15°	528.5	528.5	527.6	532.0	531.1
17.5°	519.9	520.7	521.6	525.0	525.9
20°	510.4	512.1	513.0	518.1	518.1
22.5°	501.7	502.6	504.3	509.5	509.5
25°	490.5	492.2	495.7	500.0	500.9
27.5°	479.3	480.1	484.5	490.5	491.4
30°	464.6	467.2	472.4	479.3	480.1
32.5°	451.6	454.2	460.3	467.2	468.9
35°	435.2	438.7	445.6	454.2	456.0
37.5°	420.6	423.1	431.8	441.3	443.9
40°	402.4	407.6	416.2	427.5	431.8
42.5°	384.3	389.5	399.8	414.5	419.7
45°	365.3	371.3	384.3	400.7	407.6
47.5°	346.3	353.2	367.9	386.9	394.6
50°	324.7	333.3	351.5	373.1	381.7
52.5°	304.0	314.3	334.2	358.4	369.6
55°	282.4	292.7	318.7	343.7	355.8
57.5°	258.2	272.0	300.5	329.0	342.0
60°	235.8	248.7	283.2	314.3	327.3
62.5°	211.6	228.8	266.0	298.8	311.7
65°	186.5	205.5	247.8	280.7	293.6
67.5°	164.1	184.8	229.7	262.5	275.5
70°	137.3	163.2	209.8	242.7	255.6
72.5°	112.3	140.8	189.1	221.1	233.2
75°	88.1	120.0	167.5	196.0	202.1
77.5°	65.6	99.3	145.1	157.2	152.8
80°	46.6	79.4	113.1	107.1	109.7
82.5°	30.2	60.4	69.9	79.4	82.0
85°	17.3	35.4	43.2	46.6	48.4
87.5°	7.8	13.0	17.3	17.3	16.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)