

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: P309150

Luminaire Tested: **24FCZ2-30HE-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: P309150
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: 24FCZ2-30HE-UNV-L82765-HRP-CA125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC 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: 2003.0 lumens
Efficiency: N/A
Efficacy: 95.4 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

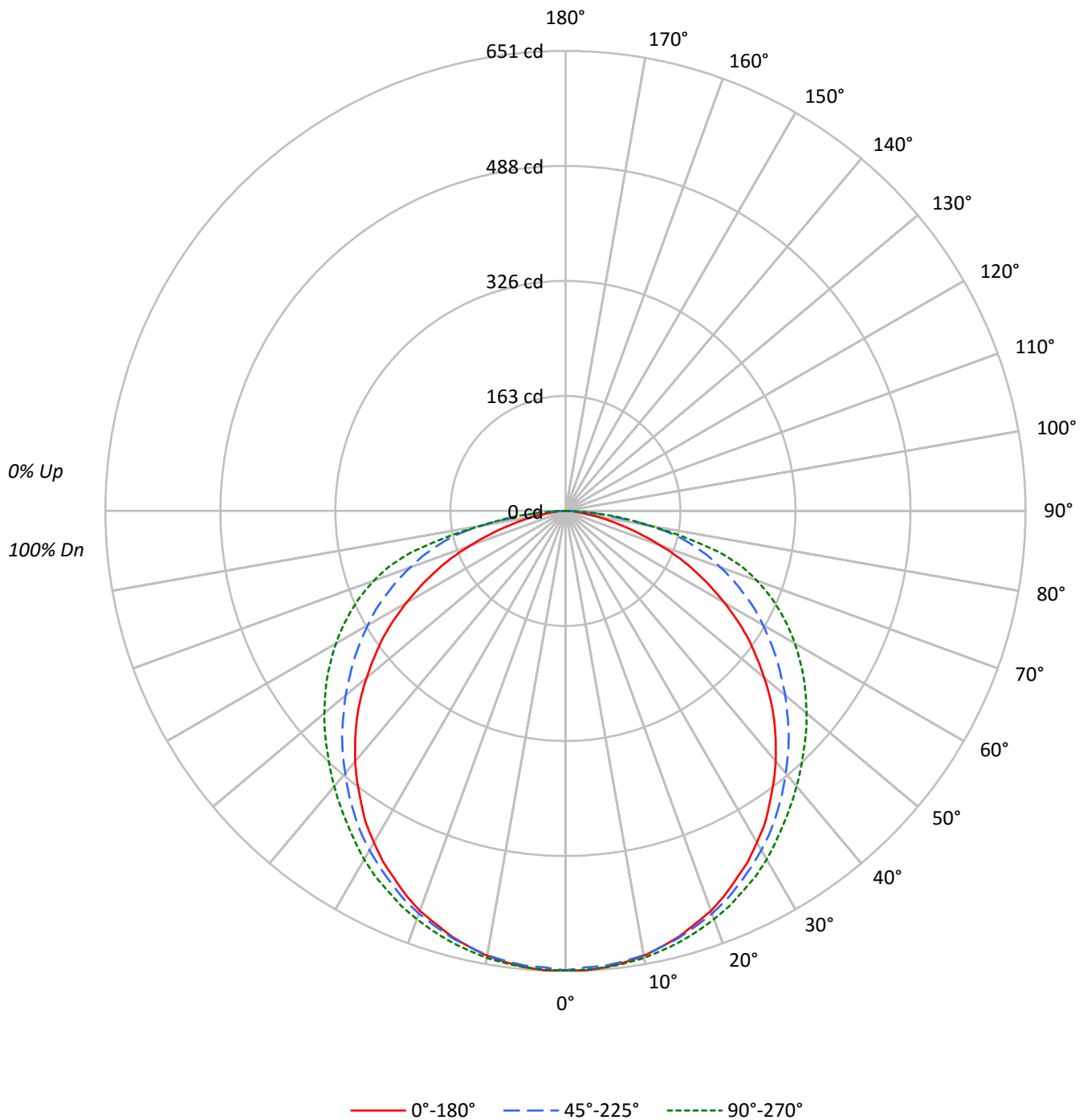
Input Watts (W): 21
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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°	874	874	874
5°	875	872	875
10°	873	872	878
15°	868	870	878
20°	862	868	880
25°	852	864	881
30°	842	861	885
35°	828	857	886
40°	813	851	894
45°	795	850	908
50°	769	850	932
55°	742	856	966
60°	699	869	1009
65°	646	889	1065
70°	564	921	1135
75°	457	968	1173
80°	338	948	948
85°	259	699	790



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.6	3.1
10°-20°	176.8	8.8
20°-30°	269.1	13.4
30°-40°	326.8	16.3
40°-50°	345.3	17.2
50°-60°	325.8	16.3
60°-70°	270.9	13.5
70°-80°	178.2	8.9
80°-90°	48.6	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°	507.5	25.3
0°-40°	834.3	41.7
0°-60°	1505.3	75.2
0°-90°	2003.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2003.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	650	650	650	650	650	
5°	648	648	646	648	648	62
15°	623	624	625	631	631	176
25°	574	577	582	592	594	265
35°	504	510	522	535	539	315
45°	418	426	447	469	477	322
55°	316	330	365	399	412	282
65°	203	226	279	320	335	201
75°	88	128	186	220	226	95
85°	17	37	45	50	51	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	649.9	649.9	649.9	649.9	649.9
2.5°	650.7	649.9	646.5	649.9	649.9
5°	648.2	648.2	645.7	648.2	648.2
7.5°	644.0	644.0	642.3	645.7	645.7
10°	639.0	639.0	638.1	642.3	642.3
12.5°	631.4	632.3	631.4	636.5	636.5
15°	623.0	623.9	624.7	630.6	630.6
17.5°	612.1	613.8	615.5	622.2	623.0
20°	602.1	602.9	606.3	613.8	614.7
22.5°	588.7	591.2	595.4	602.9	605.4
25°	573.6	576.9	582.0	592.0	593.7
27.5°	559.3	561.8	568.5	579.4	582.8
30°	541.7	545.9	554.3	565.2	569.4
32.5°	524.9	529.1	539.2	550.9	554.3
35°	504.0	509.8	521.6	535.0	539.2
37.5°	483.8	489.7	504.0	519.1	524.1
40°	462.9	469.6	484.7	502.3	509.0
42.5°	440.2	449.5	466.2	485.5	493.1
45°	417.6	426.0	446.9	468.7	477.1
47.5°	393.3	403.3	426.0	452.0	462.0
50°	367.3	379.9	405.9	434.4	445.3
52.5°	341.3	355.5	384.9	416.8	428.5
55°	316.1	329.5	364.8	399.1	411.7
57.5°	288.5	305.2	343.8	380.7	393.3
60°	259.9	278.4	322.8	361.4	374.8
62.5°	231.4	252.4	302.7	341.3	355.5
65°	202.9	226.4	279.2	320.3	334.6
67.5°	175.3	201.3	257.4	298.5	312.8
70°	143.4	176.1	234.0	274.2	288.5
72.5°	114.0	151.8	211.3	249.0	261.6
75°	88.0	128.3	186.2	220.5	225.6
77.5°	64.6	104.8	160.2	171.9	172.7
80°	43.6	83.9	122.4	120.8	122.4
82.5°	28.5	62.9	77.1	86.4	87.2
85°	16.8	36.9	45.3	50.3	51.2
87.5°	8.4	12.6	15.9	16.8	18.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)