

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: P308128

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-HRP-CP125-W2A-U-5000K**

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: P308128
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-24HE-UNV-L82765-HRP-CP125-W2A-U-5000K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB 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: 1715.0 lumens
Efficiency: N/A
Efficacy: 88.9 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

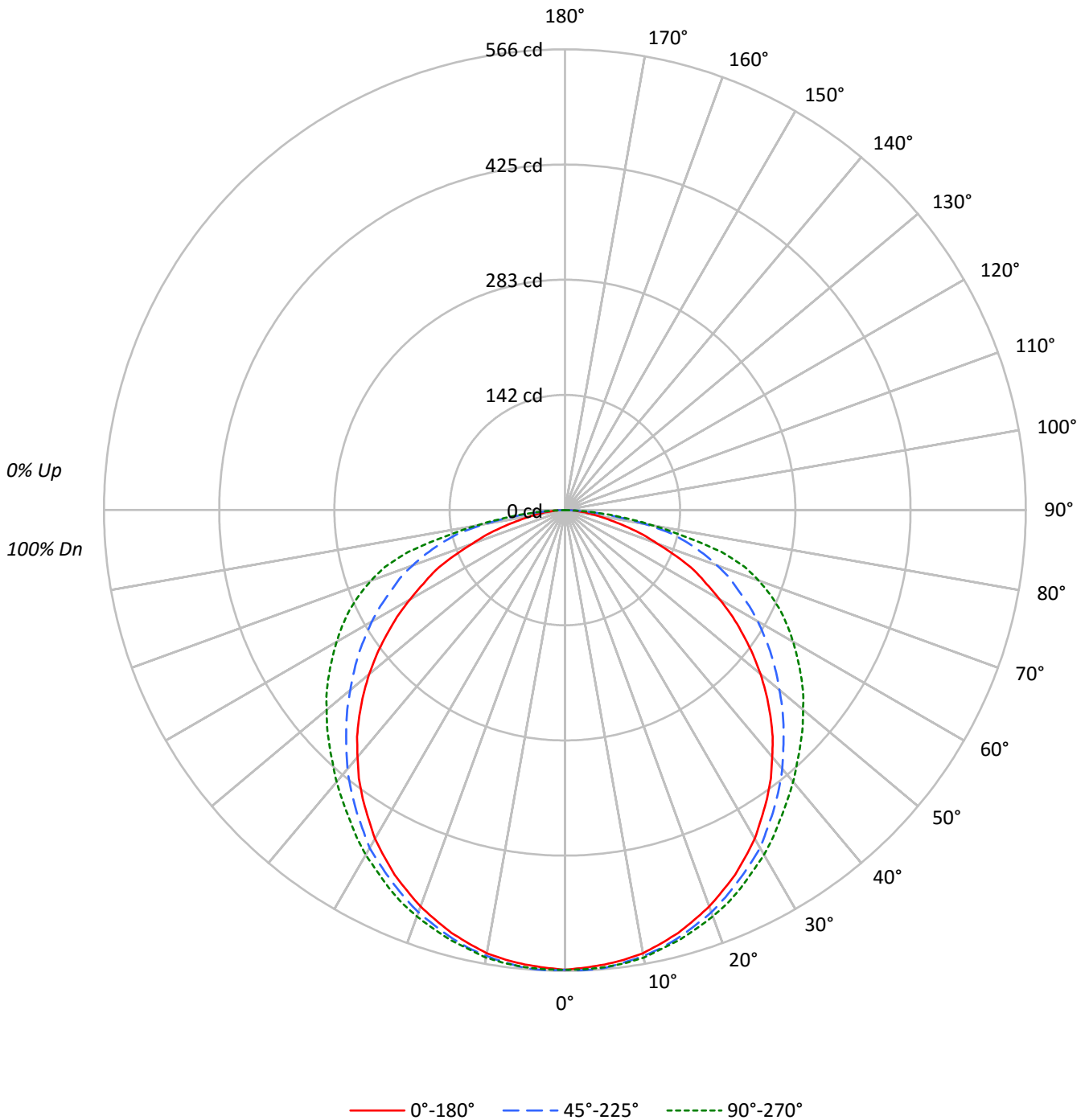
Input Watts (W): 19.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1520	1520	1520
5°	1514	1525	1522
10°	1511	1520	1525
15°	1498	1513	1522
20°	1484	1506	1521
25°	1468	1494	1519
30°	1449	1489	1519
35°	1421	1471	1518
40°	1391	1459	1532
45°	1359	1445	1556
50°	1313	1440	1599
55°	1254	1452	1660
60°	1182	1473	1741
65°	1116	1501	1860
70°	954	1566	1992
75°	799	1631	2070
80°	654	1576	1726
85°	568	1170	1269



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.5	3.1
10°-20°	153.1	8.9
20°-30°	232.0	13.5
30°-40°	280.2	16.3
40°-50°	294.4	17.2
50°-60°	277.0	16.2
60°-70°	231.0	13.5
70°-80°	153.0	8.9
80°-90°	40.8	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°	438.7	25.6
0°-40°	718.8	41.9
0°-60°	1290.2	75.2
0°-90°	1715.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1715.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	565	565	565	565	565	
5°	560	562	565	565	564	53
15°	538	540	543	545	546	152
25°	494	498	503	510	512	228
35°	433	437	448	458	462	271
45°	357	362	380	399	409	275
55°	267	279	309	341	354	239
65°	175	190	236	275	292	171
75°	77	107	157	189	199	83
85°	18	28	38	41	41	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	564.7	564.7	564.7	564.7	564.7
2.5°	562.6	563.6	565.8	565.8	564.7
5°	560.4	561.5	564.7	564.7	563.6
7.5°	557.2	558.2	560.4	562.6	561.5
10°	552.8	553.9	556.1	558.2	558.2
12.5°	545.3	546.3	550.7	551.7	551.7
15°	537.7	539.8	543.1	545.3	546.3
17.5°	527.9	530.1	534.4	538.8	538.8
20°	518.2	520.4	525.8	530.1	531.2
22.5°	506.3	509.6	515.0	520.4	522.5
25°	494.4	497.7	503.1	509.6	511.7
27.5°	480.3	483.6	491.2	498.7	499.8
30°	466.3	469.5	479.3	485.8	489.0
32.5°	449.0	453.3	463.0	472.8	476.0
35°	432.7	437.1	447.9	457.6	462.0
37.5°	415.4	419.8	431.7	443.6	449.0
40°	396.0	401.4	415.4	428.4	436.0
42.5°	377.6	383.0	397.0	414.4	421.9
45°	357.0	362.4	379.7	399.2	408.9
47.5°	335.4	341.9	362.4	386.2	396.0
50°	313.7	321.3	344.0	371.1	381.9
52.5°	291.0	300.8	326.7	355.9	368.9
55°	267.2	279.1	309.4	340.8	353.8
57.5°	244.5	255.3	291.0	324.6	338.6
60°	219.6	233.7	273.7	308.3	323.5
62.5°	195.8	211.0	255.3	292.1	308.3
65°	175.3	190.4	235.8	274.8	292.1
67.5°	148.2	168.8	219.6	256.4	273.7
70°	121.2	149.3	199.1	236.9	253.2
72.5°	100.6	127.7	178.5	216.4	231.5
75°	76.8	107.1	156.9	189.3	199.1
77.5°	57.3	88.7	134.2	150.4	151.5
80°	42.2	68.2	101.7	107.1	111.4
82.5°	29.2	47.6	66.0	72.5	74.6
85°	18.4	28.1	37.9	41.1	41.1
87.5°	9.7	10.8	13.0	13.0	13.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)