

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: P308124

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-HRP-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: P308124
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-3000K
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: 1573.0 lumens
Efficiency: N/A
Efficacy: 83.7 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

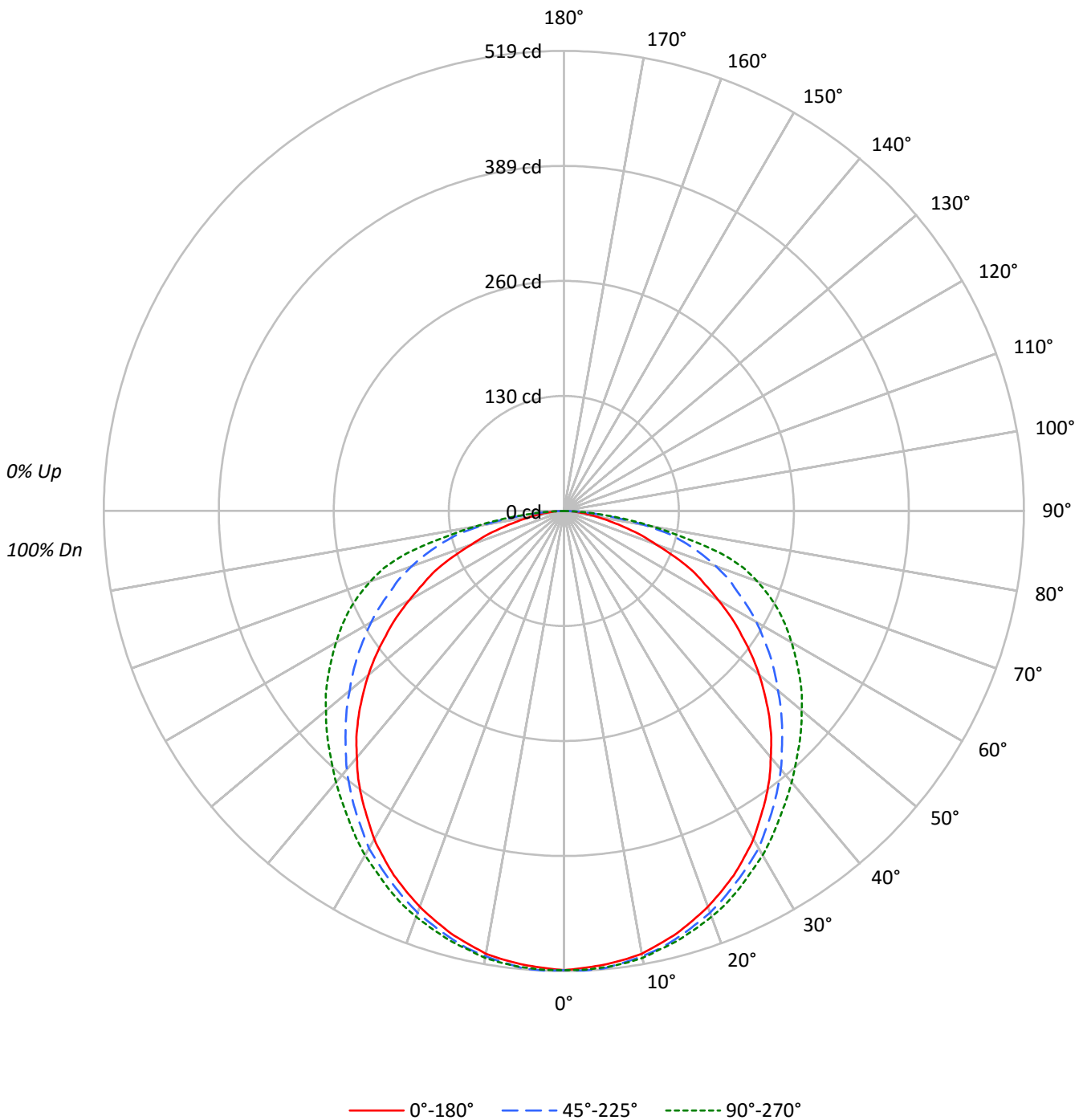
Input Watts (W): 18.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1394	1394	1394
5°	1388	1399	1397
10°	1386	1394	1399
15°	1374	1388	1396
20°	1361	1381	1395
25°	1347	1370	1393
30°	1329	1366	1394
35°	1304	1350	1392
40°	1276	1338	1405
45°	1246	1325	1427
50°	1205	1321	1467
55°	1150	1331	1522
60°	1084	1351	1597
65°	1023	1377	1706
70°	874	1437	1827
75°	733	1496	1899
80°	600	1446	1584
85°	522	1071	1164



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.1	3.1
10°-20°	140.4	8.9
20°-30°	212.8	13.5
30°-40°	257.0	16.3
40°-50°	270.0	17.2
50°-60°	254.1	16.2
60°-70°	211.8	13.5
70°-80°	140.4	8.9
80°-90°	37.4	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°	402.3	25.6
0°-40°	659.3	41.9
0°-60°	1183.4	75.2
0°-90°	1573.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1573.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	518	518	518	518	518	
5°	514	515	518	518	517	49
15°	493	495	498	500	501	139
25°	454	456	461	467	469	209
35°	397	401	411	420	424	248
45°	328	332	348	366	375	252
55°	245	256	284	313	324	219
65°	161	175	216	252	268	156
75°	70	98	144	174	183	76
85°	17	26	35	38	38	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	518.0	518.0	518.0	518.0	518.0
2.5°	516.0	517.0	519.0	519.0	518.0
5°	514.0	515.0	518.0	518.0	517.0
7.5°	511.0	512.0	514.0	516.0	515.0
10°	507.1	508.0	510.0	512.0	512.0
12.5°	500.1	501.1	505.1	506.1	506.1
15°	493.2	495.1	498.1	500.1	501.1
17.5°	484.2	486.2	490.2	494.2	494.2
20°	475.3	477.3	482.2	486.2	487.2
22.5°	464.4	467.4	472.3	477.3	479.3
25°	453.5	456.4	461.4	467.4	469.3
27.5°	440.6	443.6	450.5	457.4	458.4
30°	427.7	430.7	439.6	445.5	448.5
32.5°	411.8	415.8	424.7	433.6	436.6
35°	396.9	400.9	410.8	419.7	423.7
37.5°	381.0	385.0	395.9	406.8	411.8
40°	363.2	368.1	381.0	392.9	399.9
42.5°	346.3	351.3	364.2	380.0	387.0
45°	327.5	332.4	348.3	366.2	375.1
47.5°	307.6	313.6	332.4	354.2	363.2
50°	287.8	294.7	315.5	340.4	350.3
52.5°	266.9	275.9	299.7	326.5	338.4
55°	245.1	256.0	283.8	312.6	324.5
57.5°	224.3	234.2	266.9	297.7	310.6
60°	201.4	214.3	251.0	282.8	296.7
62.5°	179.6	193.5	234.2	267.9	282.8
65°	160.7	174.6	216.3	252.0	267.9
67.5°	135.9	154.8	201.4	235.2	251.0
70°	111.1	136.9	182.6	217.3	232.2
72.5°	92.3	117.1	163.7	198.5	212.3
75°	70.5	98.2	143.9	173.6	182.6
77.5°	52.6	81.4	123.0	137.9	138.9
80°	38.7	62.5	93.3	98.2	102.2
82.5°	26.8	43.7	60.5	66.5	68.5
85°	16.9	25.8	34.7	37.7	37.7
87.5°	8.9	9.9	11.9	11.9	11.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)