

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: P308117

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-HRP-CA125-W2A-U-4000K**

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: P308117
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-CA125-W2A-U-4000K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC 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: 1696.0 lumens
Efficiency: N/A
Efficacy: 88.8 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

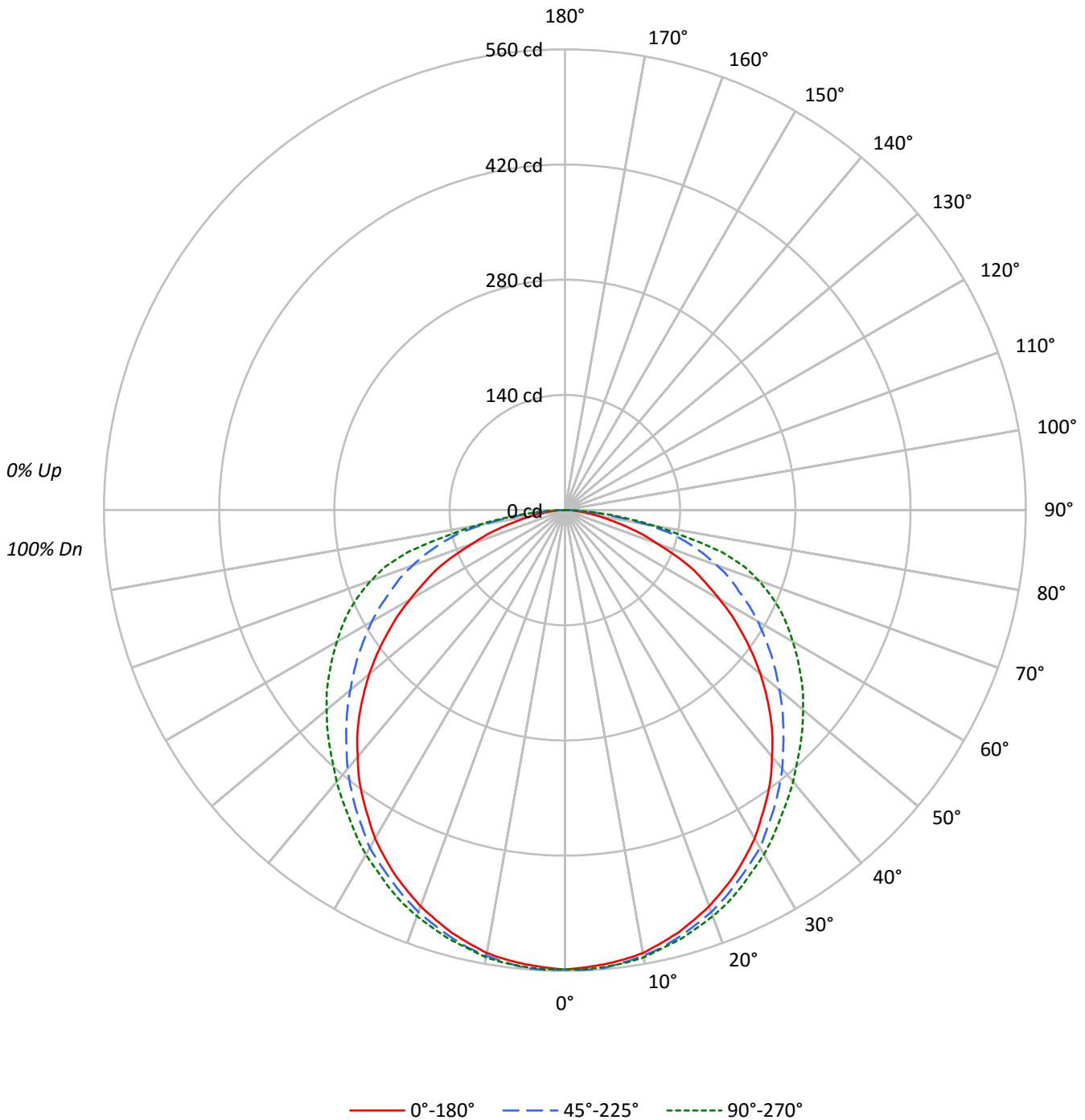
Input Watts (W): 19.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1503	1503	1503
5°	1497	1509	1506
10°	1494	1503	1509
15°	1481	1496	1505
20°	1468	1489	1504
25°	1452	1477	1502
30°	1433	1473	1503
35°	1406	1455	1501
40°	1376	1443	1515
45°	1344	1429	1539
50°	1299	1424	1581
55°	1240	1436	1641
60°	1169	1457	1722
65°	1103	1485	1840
70°	943	1549	1970
75°	790	1613	2047
80°	646	1559	1708
85°	562	1155	1257



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.9	3.1
10°-20°	151.4	8.9
20°-30°	229.5	13.5
30°-40°	277.1	16.3
40°-50°	291.1	17.2
50°-60°	273.9	16.2
60°-70°	228.4	13.5
70°-80°	151.3	8.9
80°-90°	40.3	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°	433.8	25.6
0°-40°	710.9	41.9
0°-60°	1275.9	75.2
0°-90°	1696.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1696.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	558	558	558	558	558	
5°	554	555	558	558	557	53
15°	532	534	537	539	540	150
25°	489	492	498	504	506	225
35°	428	432	443	453	457	268
45°	353	358	376	395	404	272
55°	264	276	306	337	350	236
65°	173	188	233	272	289	169
75°	76	106	155	187	197	82
85°	18	28	37	41	41	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	558.5	558.5	558.5	558.5	558.5
2.5°	556.3	557.4	559.5	559.5	558.5
5°	554.2	555.3	558.5	558.5	557.4
7.5°	551.0	552.1	554.2	556.3	555.3
10°	546.7	547.8	549.9	552.1	552.1
12.5°	539.2	540.3	544.6	545.6	545.6
15°	531.7	533.9	537.1	539.2	540.3
17.5°	522.1	524.2	528.5	532.8	532.8
20°	512.5	514.6	520.0	524.2	525.3
22.5°	500.7	503.9	509.3	514.6	516.7
25°	488.9	492.1	497.5	503.9	506.0
27.5°	475.0	478.2	485.7	493.2	494.3
30°	461.1	464.3	474.0	480.4	483.6
32.5°	444.0	448.3	457.9	467.5	470.7
35°	427.9	432.2	442.9	452.6	456.8
37.5°	410.8	415.1	426.9	438.6	444.0
40°	391.6	396.9	410.8	423.7	431.2
42.5°	373.4	378.7	392.6	409.8	417.3
45°	353.1	358.4	375.5	394.8	404.4
47.5°	331.7	338.1	358.4	381.9	391.6
50°	310.3	317.8	340.2	367.0	377.7
52.5°	287.8	297.4	323.1	352.0	364.8
55°	264.3	276.0	306.0	337.0	349.8
57.5°	241.8	252.5	287.8	321.0	334.9
60°	217.2	231.1	270.7	304.9	319.9
62.5°	193.6	208.6	252.5	288.9	304.9
65°	173.3	188.3	233.2	271.7	288.9
67.5°	146.6	166.9	217.2	253.6	270.7
70°	119.8	147.6	196.9	234.3	250.4
72.5°	99.5	126.2	176.5	214.0	229.0
75°	76.0	105.9	155.1	187.2	196.9
77.5°	56.7	87.7	132.7	148.7	149.8
80°	41.7	67.4	100.6	105.9	110.2
82.5°	28.9	47.1	65.3	71.7	73.8
85°	18.2	27.8	37.4	40.7	40.7
87.5°	9.6	10.7	12.8	12.8	12.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)