

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: P309561

Luminaire Tested: **24FCZ2-50-UNV-L82765-HRP-CA125-W2A-U-5700K**

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: P309561
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: 24FCZ2-50-UNV-L82765-HRP-CA125-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 5700K 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: 3604.0 lumens
Efficiency: N/A
Efficacy: 82.1 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

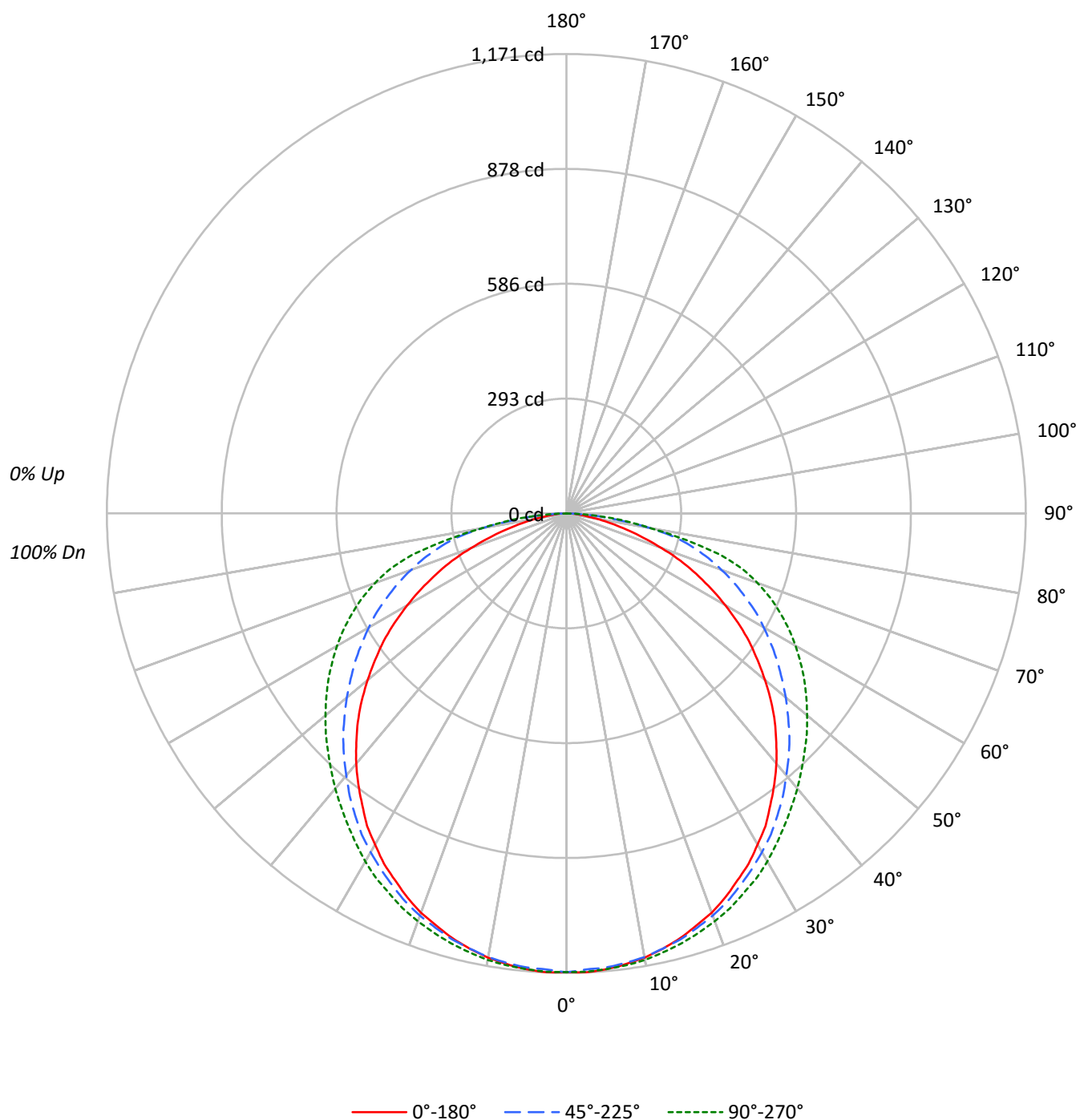
Input Watts (W): 43.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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°	1573	1573	1573
5°	1575	1569	1575
10°	1571	1569	1579
15°	1562	1566	1580
20°	1551	1562	1584
25°	1532	1555	1586
30°	1514	1549	1592
35°	1489	1542	1594
40°	1463	1532	1609
45°	1430	1530	1634
50°	1383	1529	1677
55°	1334	1540	1738
60°	1259	1563	1815
65°	1162	1599	1917
70°	1015	1656	2042
75°	823	1742	2110
80°	608	1707	1707
85°	466	1258	1420



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.8	3.1
10°-20°	318.1	8.8
20°-30°	484.3	13.4
30°-40°	588.0	16.3
40°-50°	621.2	17.2
50°-60°	586.2	16.3
60°-70°	487.4	13.5
70°-80°	320.7	8.9
80°-90°	87.4	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°	913.1	25.3
0°-40°	1501.1	41.7
0°-60°	2708.5	75.2
0°-90°	3604.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3604.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1169	1169	1169	1169	1169	
5°	1166	1166	1162	1166	1166	111
15°	1121	1122	1124	1135	1135	316
25°	1032	1038	1047	1065	1068	476
35°	907	917	938	963	970	568
45°	751	766	804	843	858	579
55°	569	593	656	718	741	507
65°	365	407	502	576	602	361
75°	158	231	335	397	406	171
85°	30	66	82	90	92	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1169.3	1169.3	1169.3	1169.3	1169.3
2.5°	1170.8	1169.3	1163.3	1169.3	1169.3
5°	1166.3	1166.3	1161.8	1166.3	1166.3
7.5°	1158.8	1158.8	1155.7	1161.8	1161.8
10°	1149.7	1149.7	1148.2	1155.7	1155.7
12.5°	1136.1	1137.6	1136.1	1145.2	1145.2
15°	1121.0	1122.5	1124.1	1134.6	1134.6
17.5°	1101.4	1104.4	1107.5	1119.5	1121.0
20°	1083.3	1084.8	1090.9	1104.4	1106.0
22.5°	1059.2	1063.7	1071.2	1084.8	1089.4
25°	1032.0	1038.1	1047.1	1065.2	1068.2
27.5°	1006.4	1010.9	1023.0	1042.6	1048.6
30°	974.7	982.2	997.3	1016.9	1024.5
32.5°	944.5	952.1	970.2	991.3	997.3
35°	906.8	917.4	938.5	962.6	970.2
37.5°	870.6	881.1	906.8	933.9	943.0
40°	832.9	844.9	872.1	903.8	915.8
42.5°	792.1	808.7	838.9	873.6	887.2
45°	751.4	766.5	804.2	843.4	858.5
47.5°	707.6	725.7	766.5	813.2	831.3
50°	660.9	683.5	730.3	781.6	801.2
52.5°	614.1	639.7	692.5	749.9	771.0
55°	568.8	593.0	656.3	718.2	740.8
57.5°	519.0	549.2	618.6	685.0	707.6
60°	467.7	500.9	580.9	650.3	674.4
62.5°	416.4	454.1	544.7	614.1	639.7
65°	365.1	407.4	502.4	576.4	602.0
67.5°	315.3	362.1	463.2	537.1	562.8
70°	258.0	316.8	421.0	493.4	519.0
72.5°	205.2	273.1	380.2	448.1	470.7
75°	158.4	230.8	335.0	396.8	405.9
77.5°	116.2	188.6	288.2	309.3	310.8
80°	78.5	150.9	220.3	217.3	220.3
82.5°	51.3	113.2	138.8	155.4	156.9
85°	30.2	66.4	81.5	90.5	92.0
87.5°	15.1	22.6	28.7	30.2	33.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)