

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: P309557

Luminaire Tested: **24FCZ2-50-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: P309557
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-4000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 4000K 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: 3451.0 lumens
Efficiency: N/A
Efficacy: 79.9 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

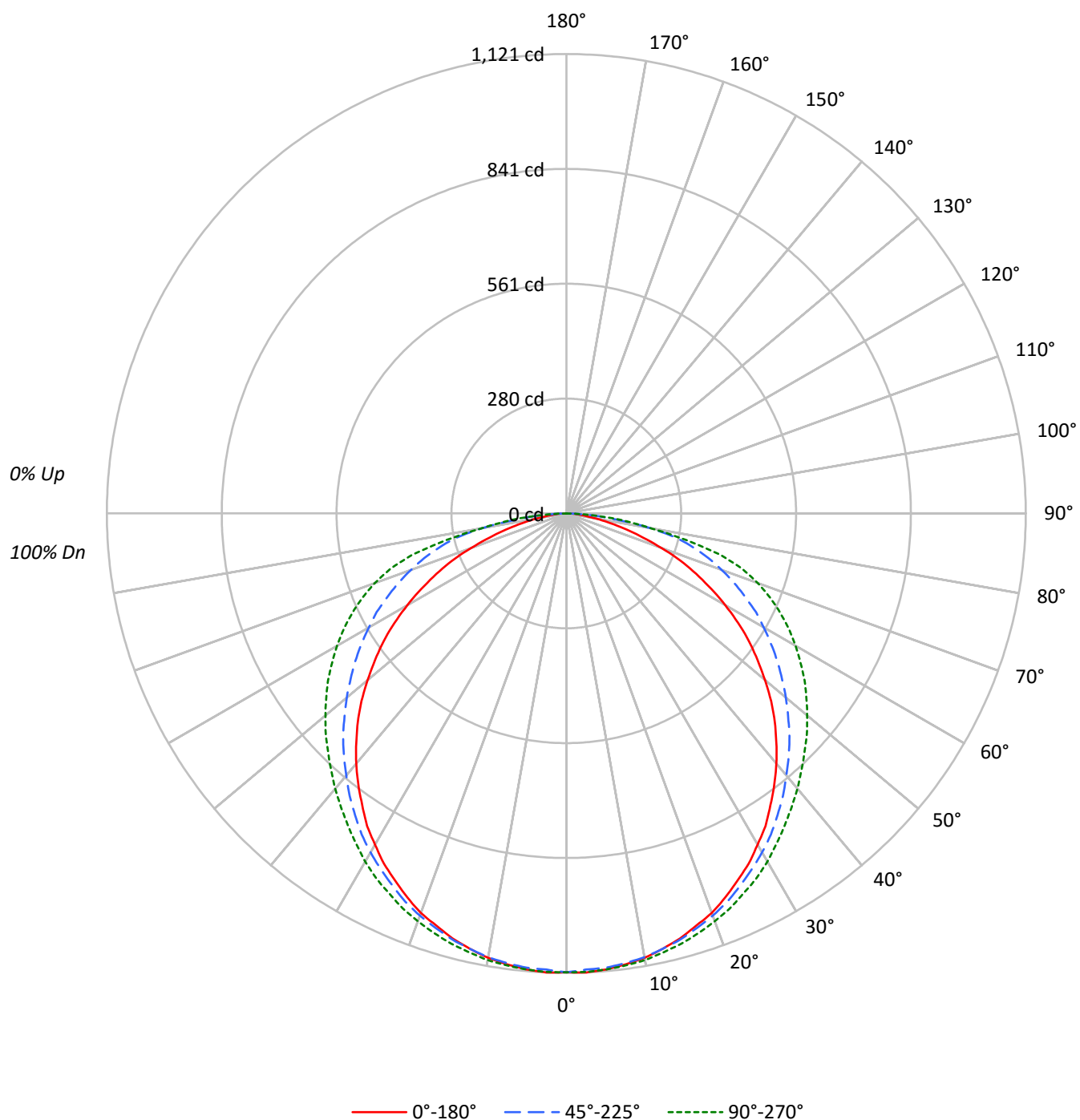
Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1507	1507	1507
5°	1508	1503	1508
10°	1504	1502	1512
15°	1495	1499	1513
20°	1485	1496	1516
25°	1467	1489	1519
30°	1450	1484	1524
35°	1426	1476	1526
40°	1401	1467	1540
45°	1369	1465	1564
50°	1325	1464	1606
55°	1278	1474	1664
60°	1205	1497	1738
65°	1113	1532	1835
70°	972	1586	1955
75°	789	1667	2020
80°	582	1634	1634
85°	446	1204	1360



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.1	3.1
10°-20°	304.6	8.8
20°-30°	463.7	13.4
30°-40°	563.0	16.3
40°-50°	594.9	17.2
50°-60°	561.3	16.3
60°-70°	466.7	13.5
70°-80°	307.0	8.9
80°-90°	83.7	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°	874.4	25.3
0°-40°	1437.4	41.7
0°-60°	2593.6	75.2
0°-90°	3451.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3451.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1120	1120	1120	1120	1120	
5°	1117	1117	1112	1117	1117	106
15°	1073	1075	1076	1086	1086	303
25°	988	994	1003	1020	1023	456
35°	868	878	899	922	929	544
45°	720	734	770	808	822	554
55°	545	568	628	688	709	485
65°	350	390	481	552	576	346
75°	152	221	321	380	389	163
85°	29	64	78	87	88	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1119.7	1119.7	1119.7	1119.7	1119.7
2.5°	1121.1	1119.7	1113.9	1119.7	1119.7
5°	1116.8	1116.8	1112.5	1116.8	1116.8
7.5°	1109.6	1109.6	1106.7	1112.5	1112.5
10°	1100.9	1100.9	1099.5	1106.7	1106.7
12.5°	1087.9	1089.3	1087.9	1096.6	1096.6
15°	1073.4	1074.9	1076.3	1086.5	1086.5
17.5°	1054.7	1057.6	1060.4	1072.0	1073.4
20°	1037.3	1038.8	1044.6	1057.6	1059.0
22.5°	1014.2	1018.5	1025.8	1038.8	1043.1
25°	988.2	994.0	1002.7	1020.0	1022.9
27.5°	963.6	968.0	979.5	998.3	1004.1
30°	933.3	940.5	955.0	973.8	981.0
32.5°	904.4	911.6	929.0	949.2	955.0
35°	868.3	878.4	898.6	921.7	929.0
37.5°	833.6	843.7	868.3	894.3	903.0
40°	797.5	809.1	835.1	865.4	877.0
42.5°	758.5	774.4	803.3	836.5	849.5
45°	719.5	733.9	770.1	807.6	822.1
47.5°	677.6	694.9	733.9	778.7	796.1
50°	632.8	654.5	699.3	748.4	767.2
52.5°	588.0	612.6	663.1	718.0	738.3
55°	544.7	567.8	628.5	687.7	709.4
57.5°	497.0	525.9	592.3	655.9	677.6
60°	447.9	479.7	556.2	622.7	645.8
62.5°	398.8	434.9	521.6	588.0	612.6
65°	349.6	390.1	481.1	551.9	576.5
67.5°	302.0	346.7	443.5	514.3	538.9
70°	247.1	303.4	403.1	472.4	497.0
72.5°	196.5	261.5	364.1	429.1	450.8
75°	151.7	221.0	320.7	380.0	388.6
77.5°	111.2	180.6	275.9	296.2	297.6
80°	75.1	144.5	210.9	208.0	210.9
82.5°	49.1	108.4	132.9	148.8	150.3
85°	28.9	63.6	78.0	86.7	88.1
87.5°	14.4	21.7	27.5	28.9	31.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)