

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: P309523

Luminaire Tested: **24FCZ2-50HE-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: P309523
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: 24FCZ2-50HE-UNV-L82765-HRP-CP125-W2A-U-5000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125"
POLYCARB SHEET
Light Source: (336) 5000K 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: 3507.0 lumens
Efficiency: N/A
Efficacy: 89.2 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

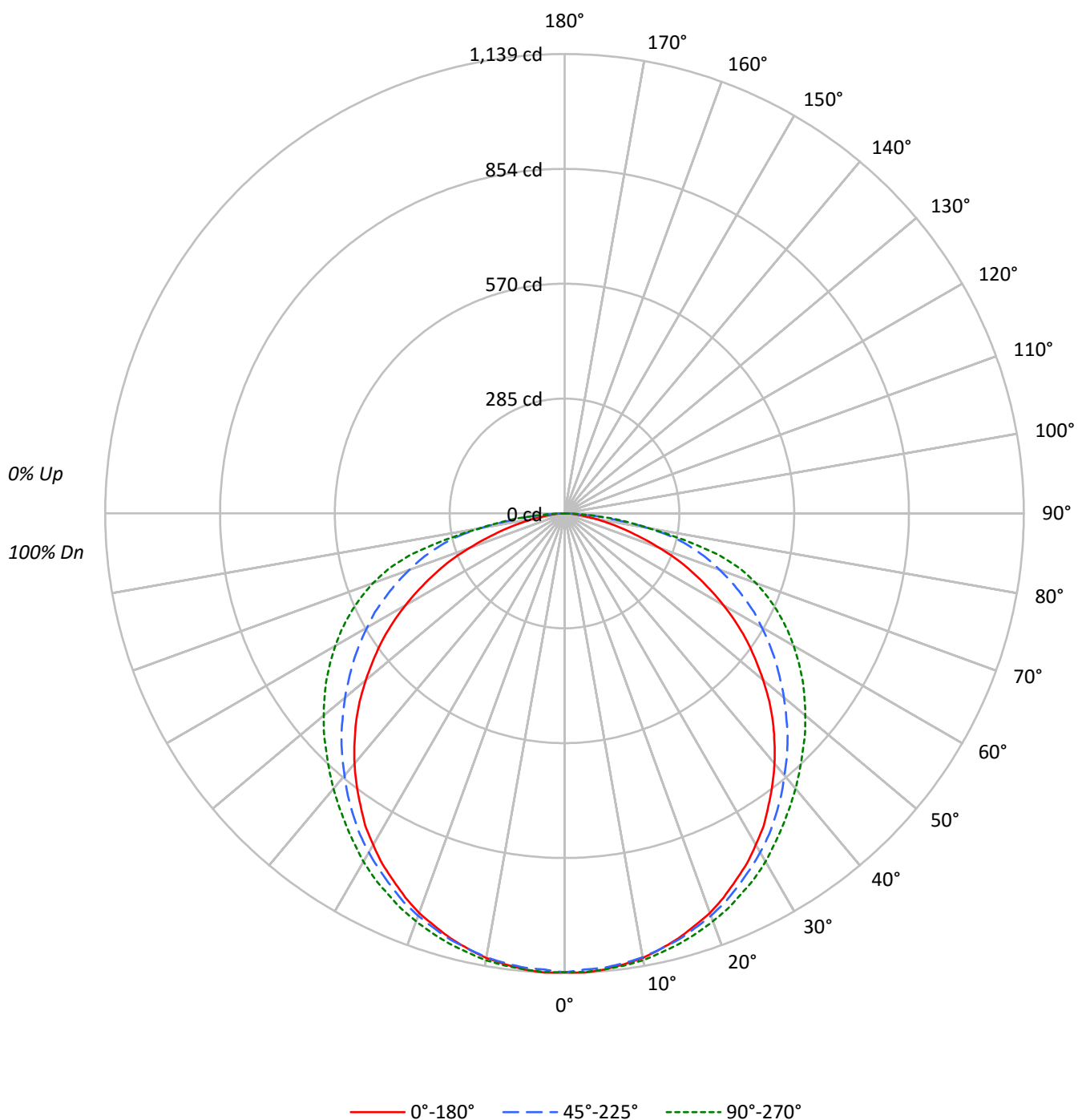
Input Watts (W): 39.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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°	1531	1531	1531
5°	1533	1527	1533
10°	1529	1527	1536
15°	1520	1524	1538
20°	1509	1520	1541
25°	1491	1513	1543
30°	1474	1508	1549
35°	1449	1500	1551
40°	1423	1490	1565
45°	1391	1489	1590
50°	1346	1487	1632
55°	1298	1498	1691
60°	1225	1521	1766
65°	1131	1557	1865
70°	988	1611	1987
75°	802	1694	2053
80°	591	1661	1661
85°	454	1224	1383



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.8	3.1
10°-20°	309.5	8.8
20°-30°	471.2	13.4
30°-40°	572.2	16.3
40°-50°	604.5	17.2
50°-60°	570.4	16.3
60°-70°	474.3	13.5
70°-80°	312.0	8.9
80°-90°	85.1	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°	888.5	25.3
0°-40°	1460.7	41.7
0°-60°	2635.6	75.2
0°-90°	3507.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3507.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1138	1138	1138	1138	1138	
5°	1135	1135	1130	1135	1135	108
15°	1091	1092	1094	1104	1104	308
25°	1004	1010	1019	1036	1040	463
35°	882	893	913	937	944	552
45°	731	746	782	821	835	563
55°	554	577	639	699	721	493
65°	355	396	489	561	586	351
75°	154	225	326	386	395	166
85°	29	65	79	88	90	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1137.8	1137.8	1137.8	1137.8	1137.8
2.5°	1139.3	1137.8	1132.0	1137.8	1137.8
5°	1134.9	1134.9	1130.5	1134.9	1134.9
7.5°	1127.6	1127.6	1124.6	1130.5	1130.5
10°	1118.8	1118.8	1117.3	1124.6	1124.6
12.5°	1105.5	1107.0	1105.5	1114.4	1114.4
15°	1090.9	1092.3	1093.8	1104.1	1104.1
17.5°	1071.8	1074.7	1077.7	1089.4	1090.9
20°	1054.2	1055.6	1061.5	1074.7	1076.2
22.5°	1030.7	1035.1	1042.4	1055.6	1060.0
25°	1004.2	1010.1	1018.9	1036.5	1039.5
27.5°	979.3	983.7	995.4	1014.5	1020.4
30°	948.5	955.8	970.5	989.6	996.9
32.5°	919.1	926.4	944.0	964.6	970.5
35°	882.4	892.7	913.2	936.7	944.0
37.5°	847.1	857.4	882.4	908.8	917.6
40°	810.4	822.2	848.6	879.4	891.2
42.5°	770.8	787.0	816.3	850.1	863.3
45°	731.2	745.8	782.5	820.7	835.4
47.5°	688.6	706.2	745.8	791.4	809.0
50°	643.1	665.1	710.6	760.5	779.6
52.5°	597.6	622.5	673.9	729.7	750.2
55°	553.5	577.0	638.7	698.9	720.9
57.5°	505.1	534.4	602.0	666.6	688.6
60°	455.1	487.4	565.3	632.8	656.3
62.5°	405.2	441.9	530.0	597.6	622.5
65°	355.3	396.4	488.9	560.8	585.8
67.5°	306.9	352.4	450.7	522.7	547.6
70°	251.1	308.3	409.6	480.1	505.1
72.5°	199.7	265.7	370.0	436.1	458.1
75°	154.2	224.6	325.9	386.1	394.9
77.5°	113.1	183.5	280.4	301.0	302.4
80°	76.3	146.8	214.4	211.4	214.4
82.5°	49.9	110.1	135.1	151.2	152.7
85°	29.4	64.6	79.3	88.1	89.6
87.5°	14.7	22.0	27.9	29.4	32.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)