

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: P310912

Luminaire Tested: **24FCZ2-50-UNV-L82765-CA125-W2A-U-6500K**

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: P310912
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
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-CA125-W2A-U-6500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 6500K 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: 4763.0 lumens
Efficiency: N/A
Efficacy: 106.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

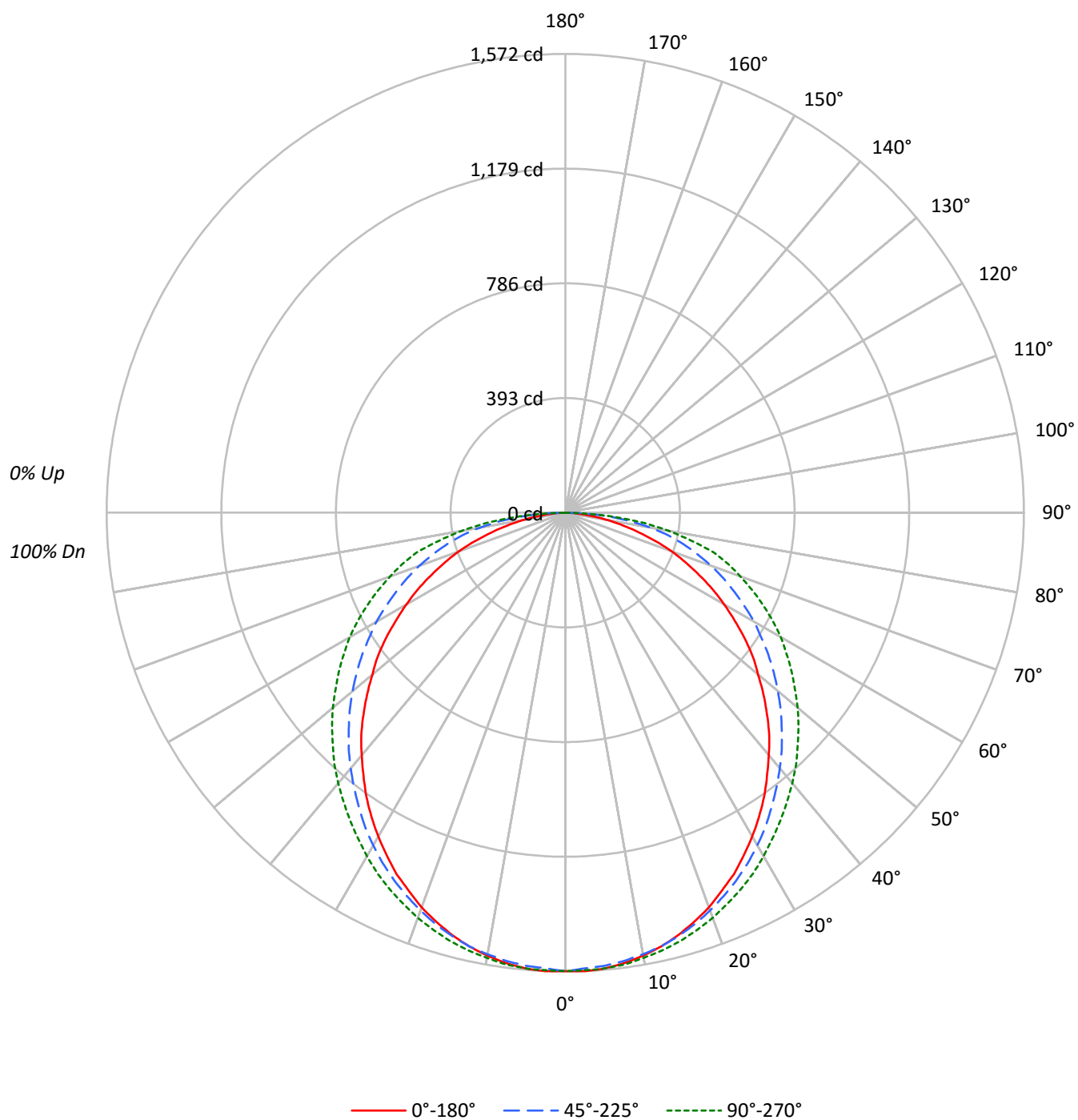
Input Watts (W): 44.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	92	89		92	89	87		82
2	98	89	81	75	95	87	80	74	83	78	73		80	75	71		67
3	89	77	69	62	86	76	68	61	73	66	60		70	64	59		56
4	81	68	59	52	79	67	58	52	64	57	51		62	56	50		47
5	74	61	52	45	72	60	51	44	58	50	44		56	49	43		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	64	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	37	31	57	45	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	25		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2113	2113	2113
5°	2117	2105	2117
10°	2105	2099	2116
15°	2087	2091	2118
20°	2061	2077	2116
25°	2029	2062	2114
30°	1991	2045	2111
35°	1952	2025	2113
40°	1907	2010	2126
45°	1861	1997	2144
50°	1806	1991	2177
55°	1761	1994	2221
60°	1693	2012	2296
65°	1615	2032	2380
70°	1529	2095	2511
75°	1364	2185	2744
80°	1163	2314	2804
85°	829	2293	2683



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.7	3.1
10°-20°	425.1	8.9
20°-30°	642.0	13.5
30°-40°	773.8	16.2
40°-50°	812.3	17.1
50°-60°	760.0	16.0
60°-70°	627.6	13.2
70°-80°	427.7	9.0
80°-90°	145.9	3.1
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°	1215.8	25.5
0°-40°	1989.5	41.8
0°-60°	3561.9	74.8
0°-90°	4763.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4763.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1571	1571	1571	1571	1571	
5°	1568	1566	1558	1568	1568	149
15°	1498	1500	1501	1517	1520	422
25°	1367	1373	1389	1416	1424	629
35°	1188	1201	1233	1274	1286	743
45°	978	999	1049	1106	1127	754
55°	751	781	850	920	947	670
65°	507	550	638	719	748	503
75°	262	322	420	499	528	280
85°	54	106	148	168	174	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1570.8	1570.8	1570.8	1570.8	1570.8
2.5°	1572.4	1570.8	1562.9	1570.8	1569.2
5°	1567.6	1566.1	1558.2	1567.6	1567.6
7.5°	1556.6	1556.6	1548.7	1559.7	1561.3
10°	1540.8	1540.8	1536.0	1548.7	1548.7
12.5°	1521.8	1521.8	1521.8	1534.4	1536.0
15°	1498.1	1499.7	1501.3	1517.1	1520.2
17.5°	1469.7	1472.8	1477.6	1496.5	1499.7
20°	1439.6	1442.8	1450.7	1472.8	1477.6
22.5°	1401.7	1409.6	1420.7	1446.0	1450.7
25°	1366.9	1373.3	1389.1	1415.9	1423.8
27.5°	1324.3	1333.8	1354.3	1382.7	1393.8
30°	1281.6	1291.1	1316.4	1349.6	1359.0
32.5°	1235.8	1250.0	1276.9	1311.6	1322.7
35°	1188.4	1201.0	1232.6	1273.7	1286.3
37.5°	1136.2	1153.6	1188.4	1232.6	1248.4
40°	1085.7	1104.6	1144.1	1191.5	1210.5
42.5°	1035.1	1054.0	1098.3	1152.0	1171.0
45°	978.2	998.7	1049.3	1106.2	1126.7
47.5°	921.3	946.6	1001.9	1061.9	1084.1
50°	862.8	891.3	951.3	1014.5	1039.8
52.5°	810.7	837.5	900.8	968.7	992.4
55°	750.6	780.7	850.2	919.7	946.6
57.5°	689.0	722.2	796.5	872.3	899.2
60°	629.0	665.3	747.5	823.3	853.3
62.5°	570.5	606.8	692.2	771.2	801.2
65°	507.3	549.9	638.4	719.0	747.5
67.5°	447.2	493.0	586.3	665.3	693.7
70°	388.7	433.0	532.6	610.0	638.4
72.5°	325.5	376.1	475.7	556.3	586.3
75°	262.3	322.4	420.4	499.4	527.8
77.5°	203.9	265.5	363.5	428.3	442.5
80°	150.1	213.3	298.7	344.5	361.9
82.5°	96.4	159.6	227.6	260.7	275.0
85°	53.7	105.9	148.5	167.5	173.8
87.5°	22.1	45.8	60.1	68.0	68.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)