

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: P310865

Luminaire Tested: **24FCZ2-50HE-UNV-L82765-CA125-W2A-U-5500K**

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: P310865
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: 24FCZ2-50HE-UNV-L82765-CA125-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 5500K 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: 4761.0 lumens
Efficiency: N/A
Efficacy: 120.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

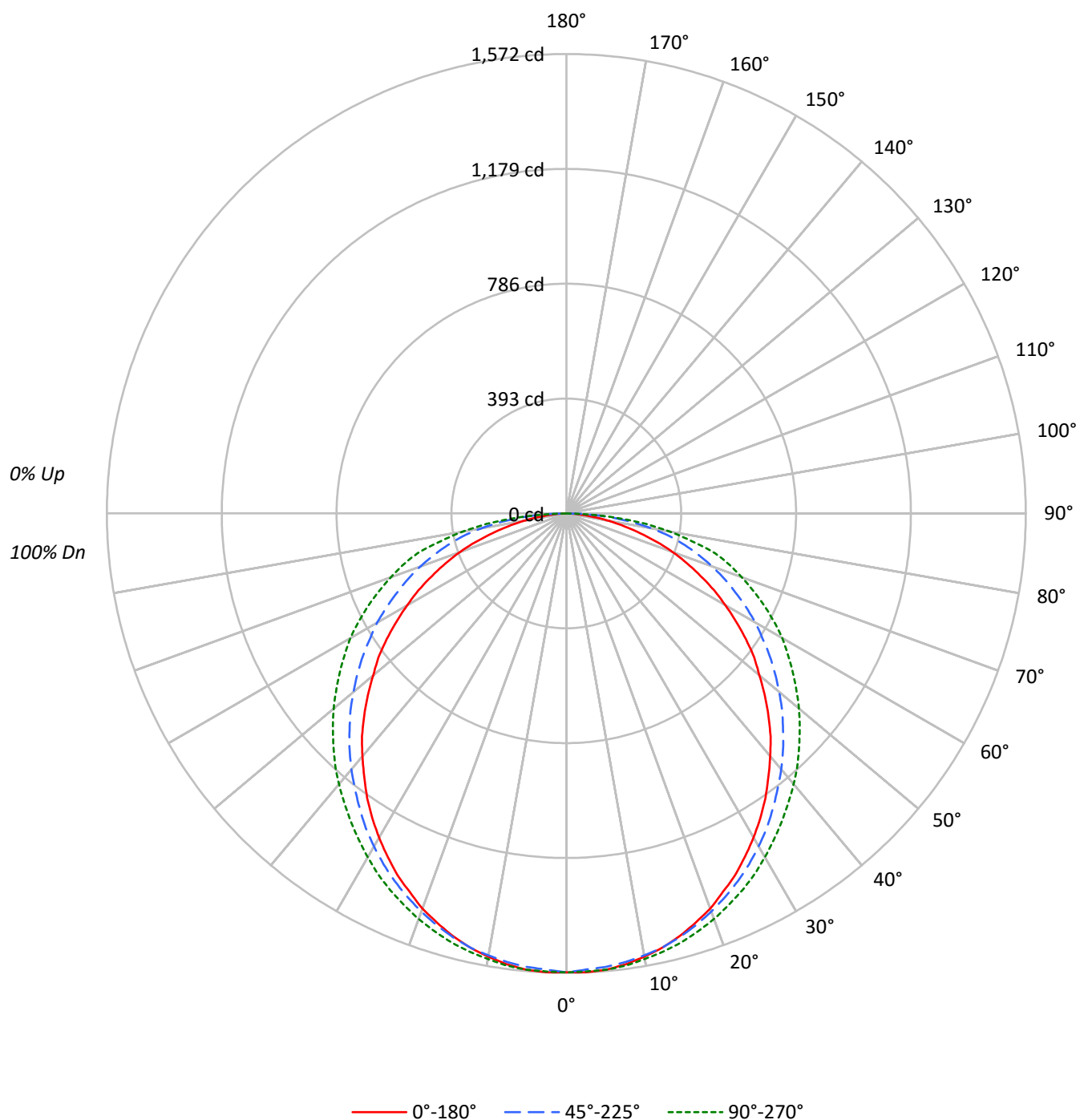
Input Watts (W): 39.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2116	2104	2116
10°	2104	2098	2115
15°	2086	2090	2117
20°	2060	2076	2115
25°	2029	2061	2113
30°	1990	2044	2111
35°	1951	2024	2112
40°	1906	2009	2125
45°	1861	1996	2143
50°	1805	1990	2176
55°	1760	1993	2220
60°	1692	2011	2295
65°	1614	2032	2379
70°	1529	2094	2511
75°	1363	2184	2743
80°	1163	2313	2803
85°	829	2293	2683



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.6	3.1
10°-20°	424.9	8.9
20°-30°	641.8	13.5
30°-40°	773.5	16.2
40°-50°	812.0	17.1
50°-60°	759.7	16.0
60°-70°	627.4	13.2
70°-80°	427.5	9.0
80°-90°	145.8	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°	1215.2	25.5
0°-40°	1988.7	41.8
0°-60°	3560.4	74.8
0°-90°	4761.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4761.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1570	1570	1570	1570	1570	
5°	1567	1565	1558	1567	1567	149
15°	1498	1499	1501	1516	1520	422
25°	1366	1373	1388	1415	1423	629
35°	1188	1200	1232	1273	1286	742
45°	978	998	1049	1106	1126	754
55°	750	780	850	919	946	670
65°	507	550	638	719	747	503
75°	262	322	420	499	528	280
85°	54	106	148	167	174	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1570.1	1570.1	1570.1	1570.1	1570.1
2.5°	1571.7	1570.1	1562.2	1570.1	1568.6
5°	1567.0	1565.4	1557.5	1567.0	1567.0
7.5°	1555.9	1555.9	1548.0	1559.1	1560.7
10°	1540.1	1540.1	1535.4	1548.0	1548.0
12.5°	1521.2	1521.2	1521.2	1533.8	1535.4
15°	1497.5	1499.1	1500.6	1516.4	1519.6
17.5°	1469.0	1472.2	1476.9	1495.9	1499.1
20°	1439.0	1442.2	1450.1	1472.2	1476.9
22.5°	1401.1	1409.0	1420.1	1445.3	1450.1
25°	1366.4	1372.7	1388.5	1415.3	1423.2
27.5°	1323.7	1333.2	1353.7	1382.2	1393.2
30°	1281.1	1290.5	1315.8	1349.0	1358.5
32.5°	1235.3	1249.5	1276.3	1311.1	1322.1
35°	1187.9	1200.5	1232.1	1273.2	1285.8
37.5°	1135.7	1153.1	1187.9	1232.1	1247.9
40°	1085.2	1104.2	1143.6	1191.0	1210.0
42.5°	1034.6	1053.6	1097.8	1151.5	1170.5
45°	977.8	998.3	1048.9	1105.7	1126.3
47.5°	920.9	946.2	1001.5	1061.5	1083.6
50°	862.5	890.9	950.9	1014.1	1039.4
52.5°	810.3	837.2	900.4	968.3	992.0
55°	750.3	780.3	849.8	919.3	946.2
57.5°	688.7	721.9	796.1	871.9	898.8
60°	628.7	665.0	747.2	823.0	853.0
62.5°	570.2	606.6	691.9	770.9	800.9
65°	507.1	549.7	638.2	718.7	747.2
67.5°	447.0	492.8	586.0	665.0	693.5
70°	388.6	432.8	532.3	609.7	638.2
72.5°	325.4	375.9	475.5	556.0	586.0
75°	262.2	322.2	420.2	499.2	527.6
77.5°	203.8	265.4	363.3	428.1	442.3
80°	150.1	213.2	298.5	344.4	361.7
82.5°	96.4	159.5	227.5	260.6	274.9
85°	53.7	105.8	148.5	167.4	173.8
87.5°	22.1	45.8	60.0	67.9	67.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)