

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: P311585

Luminaire Tested: **24FCZ2-50-UNV-L82765-S-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: P311585
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
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-S-CA125-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 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: 4979.0 lumens
Efficiency: N/A
Efficacy: 113.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

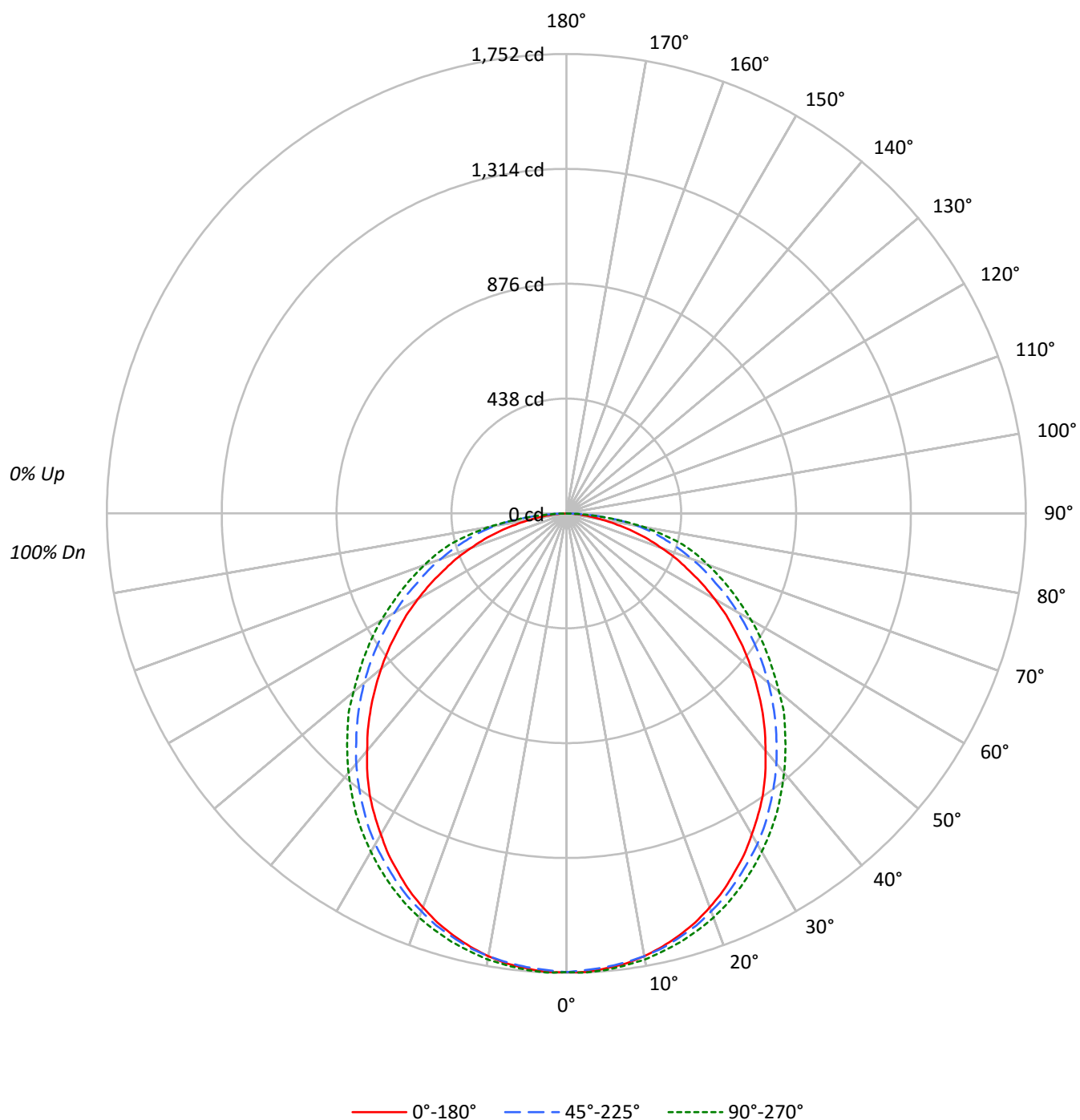
Input Watts (W): 43.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90		93	90	88		83
2	98	90	83	77	96	88	81	76	84	79	74		81	76	72		69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		58
4	82	70	61	54	80	68	60	54	66	59	53		63	57	52		49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		42
6	70	56	47	40	68	55	47	40	53	46	40		52	45	40		37
7	64	51	42	36	63	50	42	36	48	41	35		47	40	35		33
8	60	46	38	32	58	46	37	32	44	37	32		43	36	31		29
9	56	43	34	29	55	42	34	29	41	34	28		40	33	28		26
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2354	2354	2354
5°	2352	2345	2360
10°	2342	2342	2360
15°	2320	2331	2355
20°	2289	2312	2348
25°	2247	2289	2334
30°	2197	2263	2315
35°	2148	2226	2296
40°	2075	2189	2269
45°	2007	2146	2245
50°	1930	2105	2218
55°	1844	2066	2196
60°	1758	2034	2192
65°	1647	1999	2205
70°	1524	2009	2265
75°	1365	2047	2392
80°	1103	2169	2341
85°	831	1905	1856



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.6	3.3
10°-20°	473.2	9.5
20°-30°	711.3	14.3
30°-40°	847.2	17.0
40°-50°	867.1	17.4
50°-60°	780.6	15.7
60°-70°	613.1	12.3
70°-80°	397.9	8.0
80°-90°	123.1	2.5
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°	1350.0	27.1
0°-40°	2197.3	44.1
0°-60°	3845.0	77.2
0°-90°	4979.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4979.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1749	1749	1749	1749	1749	
5°	1741	1744	1736	1746	1748	165
15°	1665	1670	1673	1688	1691	470
25°	1514	1526	1542	1567	1572	697
35°	1308	1324	1355	1389	1398	816
45°	1055	1080	1128	1170	1180	813
55°	786	821	881	927	936	705
65°	517	557	628	680	693	515
75°	262	313	394	448	460	278
85°	54	100	123	120	120	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1749.2	1749.2	1749.2	1749.2	1749.2
2.5°	1750.7	1750.7	1742.8	1750.7	1752.3
5°	1741.2	1744.4	1736.5	1746.0	1747.6
7.5°	1731.8	1731.8	1727.0	1736.5	1738.1
10°	1714.4	1715.9	1714.4	1725.4	1727.0
12.5°	1692.2	1695.4	1697.0	1708.0	1709.6
15°	1665.3	1670.1	1673.2	1687.5	1690.6
17.5°	1635.3	1640.0	1647.9	1663.8	1666.9
20°	1598.9	1605.2	1614.7	1635.3	1640.0
22.5°	1559.4	1565.7	1581.5	1600.5	1608.4
25°	1513.5	1526.2	1542.0	1567.3	1572.0
27.5°	1467.6	1478.7	1499.3	1526.2	1532.5
30°	1413.9	1431.3	1456.6	1483.5	1489.8
32.5°	1361.7	1379.1	1409.1	1437.6	1445.5
35°	1307.9	1323.7	1355.4	1388.6	1398.1
37.5°	1246.2	1266.8	1301.6	1334.8	1344.3
40°	1181.4	1206.7	1246.2	1281.0	1292.1
42.5°	1119.7	1146.6	1186.1	1224.1	1236.7
45°	1054.9	1080.2	1127.6	1170.3	1179.8
47.5°	988.4	1016.9	1067.5	1110.2	1126.0
50°	922.0	952.1	1005.8	1050.1	1059.6
52.5°	855.6	887.2	944.2	991.6	996.4
55°	786.0	820.8	880.9	926.8	936.3
57.5°	722.8	752.8	817.6	865.1	876.2
60°	653.2	686.4	756.0	800.2	814.5
62.5°	586.7	621.5	694.3	738.6	751.2
65°	517.2	556.7	627.9	680.1	692.7
67.5°	457.1	495.0	570.9	621.5	634.2
70°	387.5	430.2	510.8	563.0	575.7
72.5°	327.4	371.7	452.3	502.9	521.9
75°	262.5	313.1	393.8	447.6	460.2
77.5°	199.3	257.8	340.0	381.1	381.1
80°	142.3	204.0	279.9	298.9	302.1
82.5°	93.3	153.4	207.2	205.6	205.6
85°	53.8	99.6	123.4	120.2	120.2
87.5°	20.6	41.1	44.3	44.3	42.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)