

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: METALUX

Report Number: P685351

Luminaire Tested: **4CZL-9-UNV-L950-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685351
Test Lab: INNOVATION CENTER(G2)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-9-UNV-L950-CD-U
Description: METALUX CRUZE LINEAR 4FT BASE MODEL @90 CRI and 5000K
Light Source: (588) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

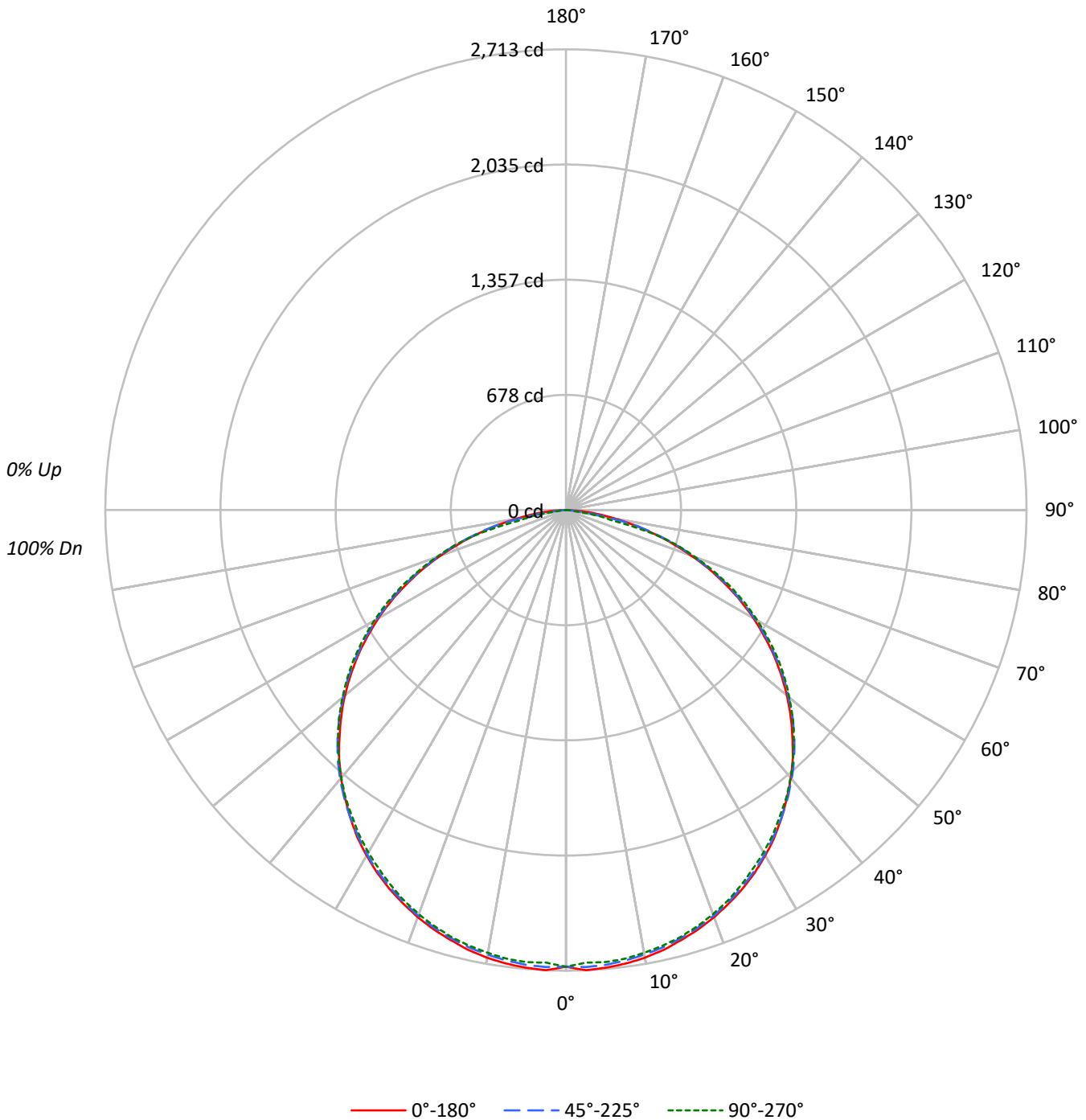
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7976.9 lumens
Efficiency: N/A
Efficacy: 147.7 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.29 / 1.41
Luminous Opening: Rectangular (W 0.83' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 54
Input Voltage (V): 120
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

TEST NUMBER: P685351
CATALOG NUMBER: 4CZL-9-UNV-L950-CD-U

Luminous Intensity Polar Plot





TEST NUMBER: P685351
 CATALOG NUMBER: 4CZL-9-UNV-L950-CD-U

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20
RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	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	102	102	102	102	102	102	100
1	109	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	86	86	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	74	79	75	72	72	72	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	61	61	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	52	52	52	50
5	76	63	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	45	45	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	39	39	39	37
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	46	40	35	35	35	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	31	31	31	29
9	56	42	34	29	55	42	34	29	41	33	28	40	33	28	39	33	28	28	28	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	25	25	25	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8683	8683	8683
5°	8770	8714	8661
10°	8777	8718	8681
15°	8765	8730	8702
20°	8768	8736	8703
25°	8769	8734	8691
30°	8758	8734	8679
35°	8727	8727	8665
40°	8685	8720	8679
45°	8612	8687	8669
50°	8539	8601	8630
55°	8426	8485	8569
60°	8242	8316	8416
65°	7934	8047	8185
70°	7421	7568	7637
75°	6677	6800	6453
80°	5579	4541	3535
85°	4161	1093	396



TEST NUMBER: P685351
 CATALOG NUMBER: 4CZL-9-UNV-L950-CD-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	255.1	3.2
10°-20°	735.5	9.2
20°-30°	1126.3	14.1
30°-40°	1379.0	17.3
40°-50°	1458.9	18.3
50°-60°	1345.3	16.9
60°-70°	1037.8	13.0
70°-80°	554.3	6.9
80°-90°	84.8	1.1
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°	2117.0	26.5
0°-40°	3496.0	43.8
0°-60°	6300.1	79.0
0°-90°	7976.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7976.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2689	2689	2689	2689	2689	
5°	2705	2674	2688	2677	2672	257
15°	2622	2594	2611	2602	2603	741
25°	2461	2436	2451	2433	2439	1134
35°	2214	2201	2214	2195	2198	1385
45°	1886	1885	1902	1889	1898	1456
55°	1497	1495	1507	1516	1522	1335
65°	1038	1038	1053	1061	1071	1025
75°	535	534	545	549	517	567
85°	112	80	30	12	11	138
90°	0	0	0	0	0	



TEST NUMBER: P685351

CATALOG NUMBER: 4CZL-9-UNV-L950-CD-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2689.0	2689.0	2689.0	2689.0	2689.0
2.5°	2712.8	2680.9	2694.0	2684.1	2667.7
5°	2705.4	2673.5	2688.2	2676.8	2671.8
7.5°	2694.0	2661.2	2675.9	2666.9	2665.3
10°	2676.8	2643.2	2658.7	2648.9	2647.3
12.5°	2653.8	2621.0	2638.2	2626.8	2628.4
15°	2621.8	2594.0	2611.2	2602.2	2603.0
17.5°	2589.9	2561.2	2579.2	2570.2	2571.0
20°	2551.4	2523.5	2542.3	2528.4	2532.5
22.5°	2507.9	2483.3	2499.7	2481.7	2489.9
25°	2461.2	2435.8	2451.4	2433.3	2439.1
27.5°	2407.9	2384.2	2399.7	2380.9	2383.3
30°	2348.9	2327.6	2342.4	2323.5	2327.6
32.5°	2285.8	2267.0	2278.4	2261.2	2267.0
35°	2213.7	2200.6	2213.7	2194.8	2198.1
37.5°	2138.3	2125.2	2143.2	2126.8	2132.6
40°	2060.4	2048.1	2068.6	2052.2	2058.8
42.5°	1977.7	1968.6	1989.1	1972.7	1980.9
45°	1885.9	1885.0	1902.3	1889.1	1898.2
47.5°	1794.9	1793.2	1810.5	1801.4	1812.1
50°	1699.8	1698.2	1712.1	1711.3	1717.8
52.5°	1598.2	1600.6	1613.8	1616.2	1623.6
55°	1496.6	1494.9	1507.2	1516.2	1522.0
57.5°	1385.9	1389.2	1399.0	1409.7	1413.8
60°	1276.1	1274.5	1287.6	1296.6	1303.1
62.5°	1159.7	1159.7	1170.4	1183.5	1190.0
65°	1038.4	1038.4	1053.2	1061.4	1071.2
67.5°	914.7	912.2	925.3	943.3	941.7
70°	786.0	786.8	801.6	810.6	808.9
72.5°	658.1	660.6	676.2	680.3	684.4
75°	535.2	534.4	545.0	549.1	517.2
77.5°	413.1	413.9	420.4	308.2	270.5
80°	300.0	301.6	244.2	190.1	190.1
82.5°	198.3	195.1	125.4	73.8	54.1
85°	112.3	80.3	29.5	12.3	10.7
87.5°	45.9	14.8	8.2	5.7	4.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)