

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: P685529

Luminaire Tested: **4CZL-5-UNV-W-L950-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685529
Test Lab: INNOVATION CENTER(G2)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-5-UNV-W-L950-CD-U
Description: METALUX CRUZE LINEAR 4FT WIDE LENS MODEL @90 CRI and 5000K
Light Source: (392) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

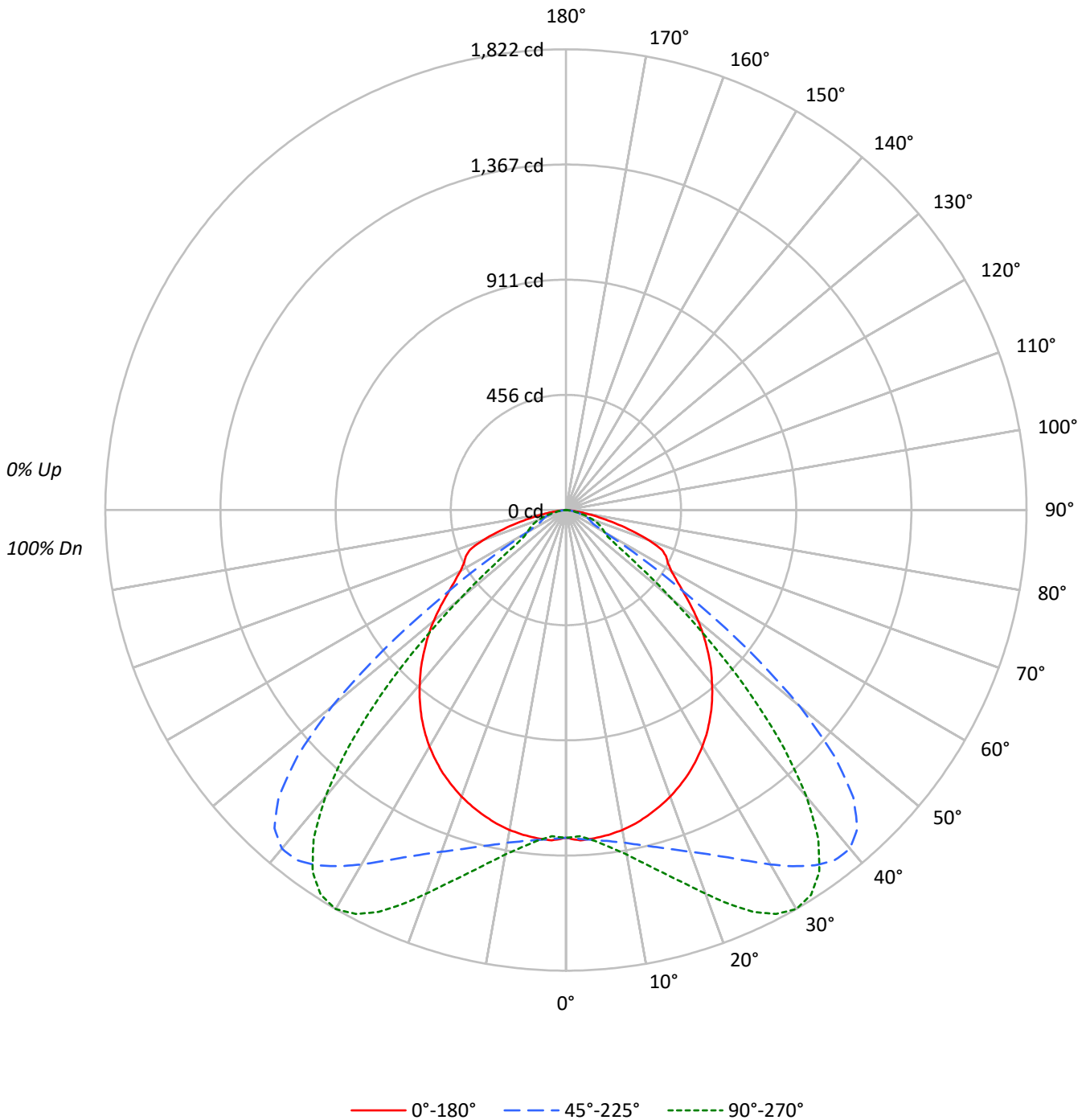
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4146.7 lumens
Efficiency: N/A
Efficacy: 133.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.69 / 1.65
Luminous Opening: Rectangular (W 0.83' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31
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: P685529
CATALOG NUMBER: 4CZL-5-UNV-W-L950-CD-U

Luminous Intensity Polar Plot





TEST NUMBER: P685529
 CATALOG NUMBER: 4CZL-5-UNV-W-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	111	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	89	89	89	87
2	102	94	88	83	99	93	87	82	89	85	81	86	82	79	83	80	77	77	77	77	75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	67	67	67	65
4	86	75	67	61	84	73	66	60	71	65	59	69	63	59	67	62	58	58	58	58	56
5	79	67	59	52	77	66	58	52	64	57	52	62	56	51	60	55	51	51	51	51	49
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	45	45	45	43
7	68	55	46	40	66	54	46	40	52	45	40	51	45	40	50	44	39	39	39	39	38
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35	35	35	35	33
9	59	46	38	32	57	45	37	32	44	37	32	43	36	32	42	36	32	32	32	32	30
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	29	29	29	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4187	4187	4187
5°	4223	4245	4258
10°	4213	4381	4535
15°	4182	4613	4965
20°	4146	4942	5546
25°	4096	5400	6247
30°	4026	6035	6793
35°	3928	6764	6886
40°	3791	7370	6239
45°	3627	7342	4735
50°	3431	6067	2729
55°	3198	3337	1404
60°	3104	1164	1144
65°	3344	847	1147
70°	3303	869	1107
75°	2498	760	888
80°	1508	621	629
85°	752	319	133



TEST NUMBER: P685529
 CATALOG NUMBER: 4CZL-5-UNV-W-L950-CD-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.5	3.0
10°-20°	390.2	9.4
20°-30°	685.4	16.5
30°-40°	952.2	23.0
40°-50°	965.7	23.3
50°-60°	619.7	14.9
60°-70°	289.9	7.0
70°-80°	100.5	2.4
80°-90°	17.5	0.4
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°	1201.1	29.0
0°-40°	2153.4	51.9
0°-60°	3738.8	90.2
0°-90°	4146.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4146.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1296	1296	1296	1296	1296	
5°	1303	1294	1310	1314	1314	124
15°	1251	1281	1380	1454	1485	353
25°	1150	1267	1516	1693	1753	529
35°	996	1278	1716	1775	1747	622
45°	794	1368	1608	1199	1037	612
55°	568	1413	593	285	249	513
65°	438	452	111	139	150	426
75°	200	69	61	70	71	217
85°	20	18	9	5	4	31
90°	0	0	0	0	0	



TEST NUMBER: P685529

CATALOG NUMBER: 4CZL-5-UNV-W-L950-CD-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1296.5	1296.5	1296.5	1296.5	1296.5	1296.5	1296.5	1296.5	1296.5	1296.5	1296.5
2.5°	1307.8	1303.8	1297.0	1294.3	1295.6	1302.4	1304.7	1299.7	1298.4	1294.7	1291.1
5°	1302.9	1299.3	1294.3	1293.4	1298.4	1309.6	1314.6	1313.2	1315.5	1315.9	1313.7
7.5°	1295.6	1292.5	1288.4	1292.5	1302.9	1320.9	1332.2	1335.8	1343.9	1345.7	1345.2
10°	1284.8	1282.1	1280.8	1291.1	1309.2	1336.2	1356.1	1366.0	1377.7	1381.8	1383.1
12.5°	1270.4	1267.7	1271.3	1289.3	1317.7	1356.5	1385.8	1403.4	1420.1	1428.6	1431.3
15°	1251.0	1250.1	1259.1	1288.0	1328.6	1379.9	1420.5	1448.0	1471.9	1481.4	1485.0
17.5°	1229.8	1230.3	1246.5	1287.5	1341.6	1407.4	1459.3	1498.5	1527.8	1541.3	1545.4
20°	1206.4	1207.7	1232.1	1287.1	1357.9	1438.1	1502.1	1553.5	1590.0	1608.1	1613.9
22.5°	1178.9	1181.6	1216.3	1287.5	1375.0	1473.3	1552.6	1613.9	1657.7	1679.3	1686.5
25°	1149.6	1153.6	1200.1	1289.8	1396.6	1515.6	1610.3	1682.0	1726.2	1745.1	1753.2
27.5°	1115.8	1122.5	1182.5	1292.9	1422.3	1564.8	1669.4	1738.3	1779.4	1793.8	1801.0
30°	1079.7	1087.4	1165.4	1299.3	1455.7	1618.4	1723.9	1782.1	1809.6	1817.7	1821.7
32.5°	1040.0	1052.7	1148.2	1309.6	1494.9	1670.3	1764.0	1798.8	1805.5	1802.8	1804.2
35°	996.3	1009.8	1132.0	1326.8	1539.5	1715.8	1779.8	1779.8	1760.0	1747.8	1746.9
37.5°	949.9	967.0	1115.8	1346.6	1591.4	1746.0	1762.7	1718.1	1669.8	1643.7	1639.6
40°	899.4	922.4	1104.5	1373.6	1638.3	1748.3	1701.4	1609.4	1527.4	1485.0	1480.0
42.5°	849.3	877.7	1099.5	1408.8	1673.4	1706.8	1586.0	1444.0	1332.6	1282.6	1277.2
45°	794.3	831.8	1101.3	1457.0	1682.9	1607.6	1414.2	1230.3	1105.4	1042.3	1036.9
47.5°	739.8	786.2	1105.9	1511.6	1641.4	1439.5	1185.6	972.9	848.9	782.6	781.7
50°	683.0	743.4	1116.7	1556.2	1529.2	1207.7	904.8	697.0	597.8	547.3	543.2
52.5°	623.9	706.0	1140.1	1564.3	1329.5	910.2	614.0	465.2	400.8	368.8	362.5
55°	568.0	674.4	1178.4	1491.3	1042.3	592.8	386.8	293.5	261.0	247.9	249.3
57.5°	519.8	651.0	1223.1	1300.6	676.7	348.9	224.1	195.2	194.3	195.7	196.1
60°	480.6	636.6	1242.9	975.6	371.5	180.3	156.4	162.7	171.3	176.3	177.2
62.5°	454.9	628.9	1182.5	565.3	165.0	125.8	136.6	148.3	158.2	162.7	163.2
65°	437.7	608.6	967.5	279.5	101.0	110.9	124.4	136.6	145.6	149.2	150.1
67.5°	411.1	551.3	663.2	115.9	88.8	100.1	113.2	124.9	132.5	135.2	135.7
70°	349.8	461.6	385.4	77.1	80.2	92.0	102.3	111.4	116.3	117.7	117.2
72.5°	273.2	365.6	194.8	69.9	74.4	80.7	86.6	91.5	94.2	95.6	95.6
75°	200.2	267.3	91.5	61.8	55.5	60.9	66.7	69.9	70.8	71.2	71.2
77.5°	134.3	184.4	54.5	47.8	42.8	47.3	49.6	48.2	47.3	48.2	48.2
80°	81.1	113.6	47.8	34.7	32.9	33.4	31.6	31.6	33.4	34.3	33.8
82.5°	43.7	64.5	41.9	25.2	22.1	20.3	19.8	18.9	18.0	17.6	17.6
85°	20.3	32.9	27.0	15.3	11.7	8.6	6.8	5.0	4.5	3.6	3.6
87.5°	8.1	12.6	8.1	5.0	2.7	1.8	1.4	0.9	0.5	0.5	0.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)