

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: P685329

Luminaire Tested: **4CZL-5-UNV-L935-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685329
Test Lab: INNOVATION CENTER(G2)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-5-UNV-L935-CD-U
Description: METALUX CRUZE LINEAR 4FT BASE MODEL @90 CRI and 3500K
Light Source: (392) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

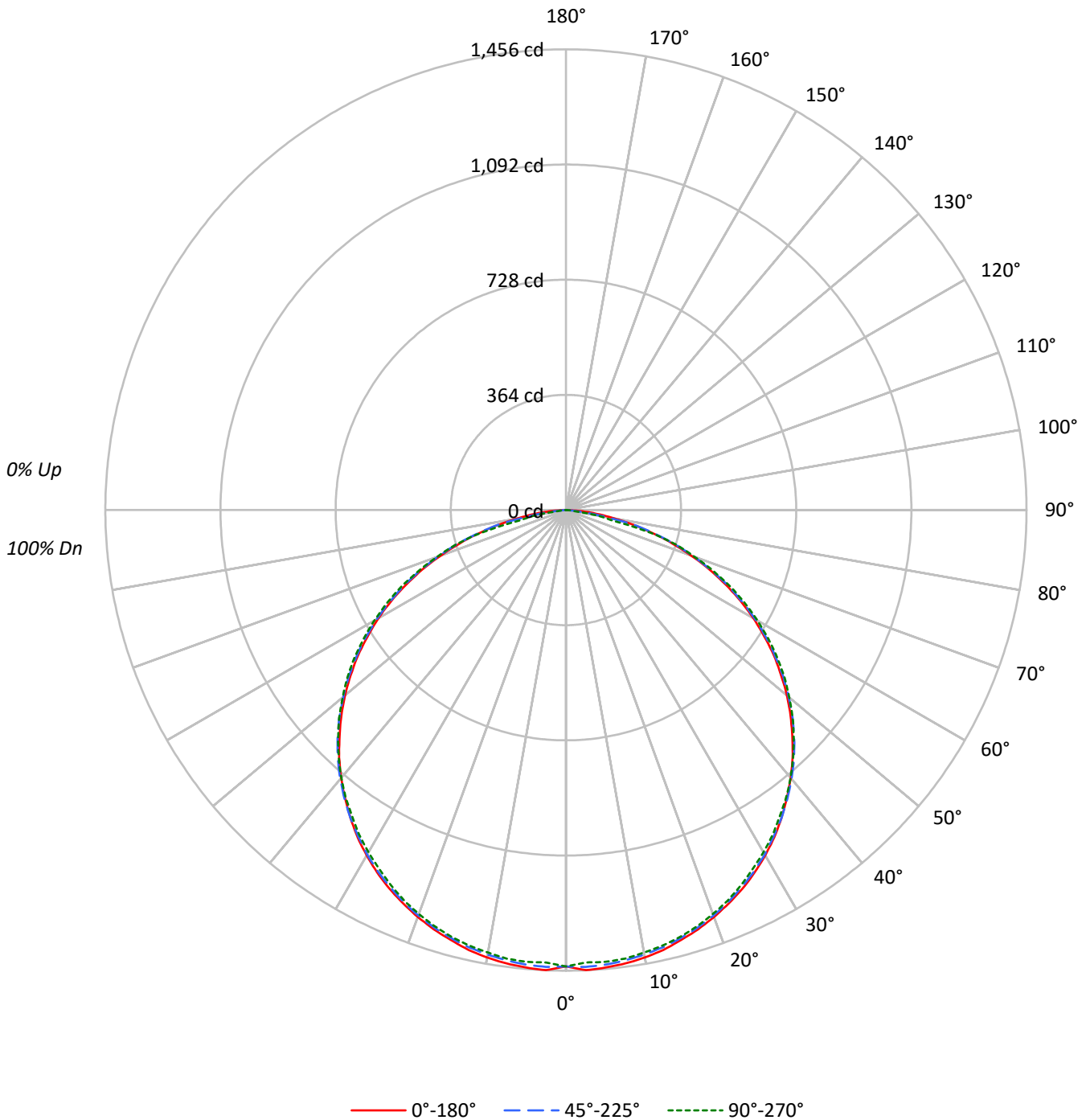
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4279.7 lumens
Efficiency: N/A
Efficacy: 138.1 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): 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

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Luminous Intensity Polar Plot





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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°	4659	4659	4659
5°	4705	4675	4647
10°	4709	4677	4657
15°	4703	4683	4669
20°	4704	4687	4669
25°	4705	4686	4663
30°	4699	4686	4656
35°	4682	4682	4649
40°	4660	4678	4656
45°	4621	4661	4651
50°	4582	4615	4630
55°	4520	4552	4597
60°	4421	4461	4516
65°	4257	4317	4391
70°	3981	4060	4098
75°	3582	3648	3462
80°	2992	2436	1897
85°	2230	585	211



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.9	3.2
10°-20°	394.6	9.2
20°-30°	604.3	14.1
30°-40°	739.9	17.3
40°-50°	782.7	18.3
50°-60°	721.8	16.9
60°-70°	556.8	13.0
70°-80°	297.4	6.9
80°-90°	45.5	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°	1135.8	26.5
0°-40°	1875.6	43.8
0°-60°	3380.1	79.0
0°-90°	4279.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4279.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1443	1443	1443	1443	1443	
5°	1452	1434	1442	1436	1434	138
15°	1407	1392	1401	1396	1396	397
25°	1320	1307	1315	1306	1309	609
35°	1188	1181	1188	1178	1179	743
45°	1012	1011	1021	1014	1018	781
55°	803	802	809	814	817	716
65°	557	557	565	569	575	550
75°	287	287	292	295	278	304
85°	60	43	16	7	6	74
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1442.7	1442.7	1442.7	1442.7	1442.7
2.5°	1455.5	1438.3	1445.4	1440.1	1431.3
5°	1451.5	1434.4	1442.3	1436.1	1433.5
7.5°	1445.4	1427.8	1435.7	1430.8	1430.0
10°	1436.1	1418.1	1426.4	1421.2	1420.3
12.5°	1423.8	1406.2	1415.4	1409.3	1410.2
15°	1406.7	1391.7	1400.9	1396.1	1396.5
17.5°	1389.5	1374.1	1383.8	1379.0	1379.4
20°	1368.8	1353.9	1364.0	1356.5	1358.7
22.5°	1345.5	1332.3	1341.1	1331.5	1335.9
25°	1320.5	1306.8	1315.2	1305.5	1308.6
27.5°	1291.9	1279.1	1287.5	1277.4	1278.7
30°	1260.2	1248.8	1256.7	1246.6	1248.8
32.5°	1226.4	1216.3	1222.4	1213.2	1216.3
35°	1187.7	1180.6	1187.7	1177.6	1179.3
37.5°	1147.2	1140.2	1149.9	1141.1	1144.1
40°	1105.4	1098.9	1109.8	1101.1	1104.6
42.5°	1061.0	1056.2	1067.2	1058.4	1062.8
45°	1011.8	1011.3	1020.6	1013.5	1018.4
47.5°	963.0	962.1	971.3	966.5	972.2
50°	912.0	911.1	918.6	918.1	921.6
52.5°	857.4	858.8	865.8	867.1	871.1
55°	802.9	802.0	808.6	813.5	816.6
57.5°	743.6	745.3	750.6	756.3	758.5
60°	684.6	683.8	690.8	695.6	699.2
62.5°	622.2	622.2	627.9	635.0	638.5
65°	557.1	557.1	565.0	569.4	574.7
67.5°	490.7	489.4	496.4	506.1	505.2
70°	421.7	422.1	430.0	434.9	434.0
72.5°	353.1	354.4	362.8	365.0	367.2
75°	287.1	286.7	292.4	294.6	277.5
77.5°	221.6	222.1	225.6	165.3	145.1
80°	160.9	161.8	131.0	102.0	102.0
82.5°	106.4	104.7	67.3	39.6	29.0
85°	60.2	43.1	15.8	6.6	5.7
87.5°	24.6	7.9	4.4	3.1	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)