

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: P685353

Luminaire Tested: **4CZL-16-UNV-L950-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685353
Test Lab: INNOVATION CENTER(G2)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-16-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

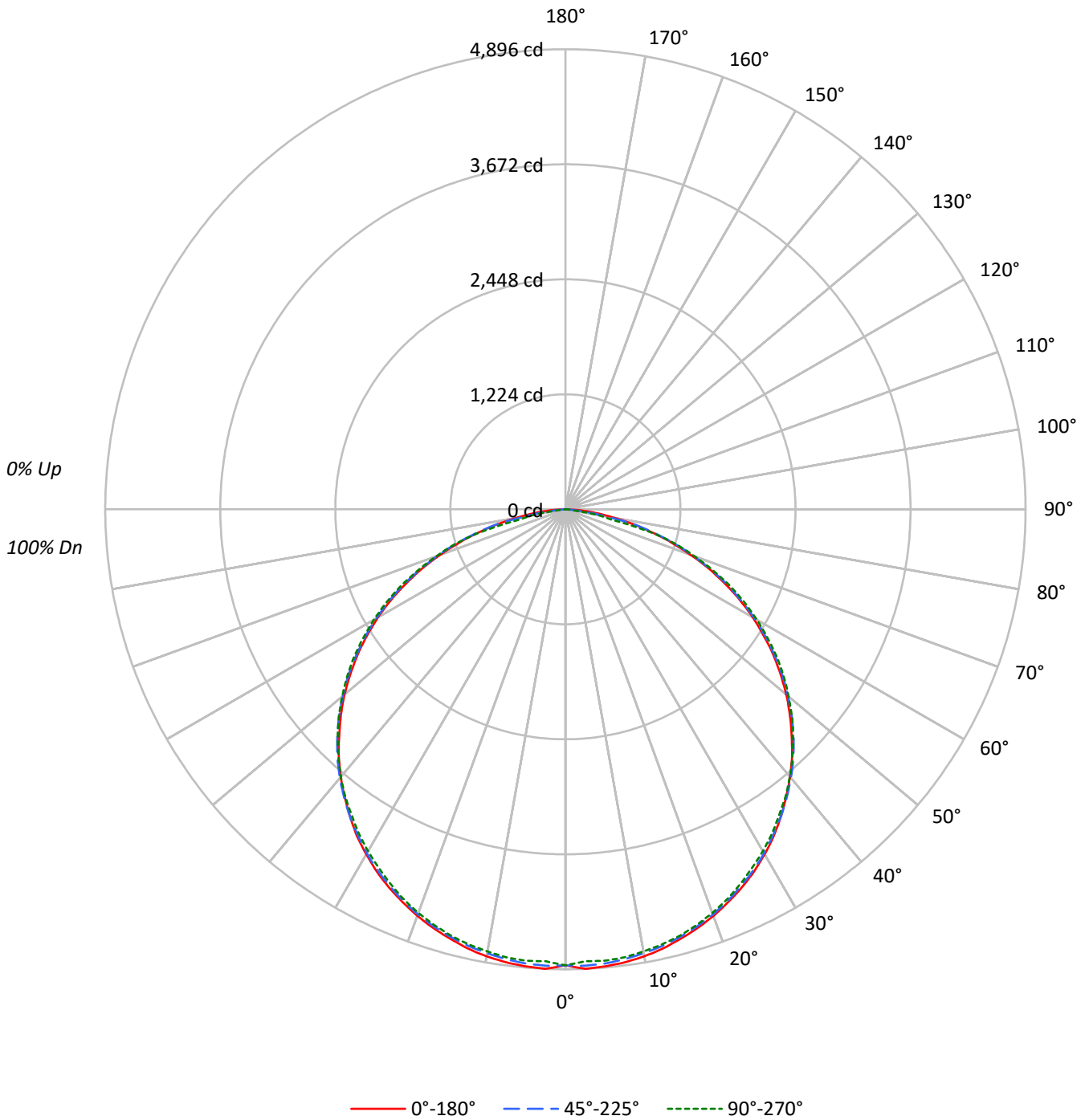
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14396.6 lumens
Efficiency: N/A
Efficacy: 139.8 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): 103
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°	15672	15672	15672
5°	15827	15727	15631
10°	15841	15734	15666
15°	15819	15755	15705
20°	15823	15768	15707
25°	15827	15763	15684
30°	15807	15763	15664
35°	15750	15750	15639
40°	15675	15738	15663
45°	15543	15678	15644
50°	15412	15523	15575
55°	15206	15314	15464
60°	14874	15008	15189
65°	14320	14523	14772
70°	13393	13658	13784
75°	12051	12272	11646
80°	10068	8197	6382
85°	7506	1971	711



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	460.4	3.2
10°-20°	1327.5	9.2
20°-30°	2032.8	14.1
30°-40°	2488.8	17.3
40°-50°	2632.9	18.3
50°-60°	2427.9	16.9
60°-70°	1872.9	13.0
70°-80°	1000.3	6.9
80°-90°	153.1	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°	3820.6	26.5
0°-40°	6309.4	43.8
0°-60°	11370.3	79.0
0°-90°	14396.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14396.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4853	4853	4853	4853	4853	
5°	4883	4825	4852	4831	4822	464
15°	4732	4682	4713	4696	4698	1337
25°	4442	4396	4424	4392	4402	2047
35°	3995	3972	3995	3961	3967	2500
45°	3404	3402	3433	3410	3426	2627
55°	2701	2698	2720	2736	2747	2410
65°	1874	1874	1901	1916	1933	1850
75°	966	964	984	991	933	1023
85°	203	145	53	22	19	249
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4853.1	4853.1	4853.1	4853.1	4853.1
2.5°	4896.0	4838.3	4862.0	4844.3	4814.7
5°	4882.7	4825.0	4851.7	4831.0	4822.1
7.5°	4862.0	4802.8	4829.5	4813.2	4810.2
10°	4831.0	4770.3	4798.4	4780.7	4777.7
12.5°	4789.5	4730.4	4761.4	4740.7	4743.7
15°	4731.8	4681.6	4712.6	4696.3	4697.8
17.5°	4674.2	4622.4	4654.9	4638.7	4640.1
20°	4604.6	4554.3	4588.4	4563.2	4570.6
22.5°	4526.2	4481.9	4511.5	4478.9	4493.7
25°	4441.9	4396.1	4424.2	4391.6	4402.0
27.5°	4345.8	4302.9	4331.0	4297.0	4301.4
30°	4239.3	4200.8	4227.5	4193.4	4200.8
32.5°	4125.4	4091.4	4112.1	4081.0	4091.4
35°	3995.2	3971.6	3995.2	3961.2	3967.1
37.5°	3859.1	3835.5	3868.0	3838.4	3848.8
40°	3718.6	3696.4	3733.4	3703.8	3715.7
42.5°	3569.2	3553.0	3589.9	3560.3	3575.1
45°	3403.6	3402.1	3433.1	3409.5	3425.7
47.5°	3239.4	3236.4	3267.5	3251.2	3270.4
50°	3067.8	3064.8	3090.0	3088.5	3100.3
52.5°	2884.4	2888.8	2912.5	2916.9	2930.2
55°	2701.0	2698.0	2720.2	2736.5	2746.8
57.5°	2501.3	2507.2	2524.9	2544.2	2551.6
60°	2303.1	2300.1	2323.8	2340.0	2351.9
62.5°	2093.0	2093.0	2112.2	2135.9	2147.7
65°	1874.1	1874.1	1900.7	1915.5	1933.3
67.5°	1650.7	1646.3	1670.0	1702.5	1699.6
70°	1418.5	1420.0	1446.6	1462.9	1459.9
72.5°	1187.8	1192.2	1220.3	1227.7	1235.1
75°	965.9	964.4	983.6	991.0	933.4
77.5°	745.5	747.0	758.8	556.2	488.1
80°	541.4	544.3	440.8	343.2	343.2
82.5°	358.0	352.0	226.3	133.1	97.6
85°	202.6	145.0	53.2	22.2	19.2
87.5°	82.8	26.6	14.8	10.4	8.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)