

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: P685411

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

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685411
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-9-UNV-N-L950-CD-U
Description: METALUX CRUZE LINEAR 4FT NARROW LENS MODEL @90 CRI and 5000K
Light Source: (588) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

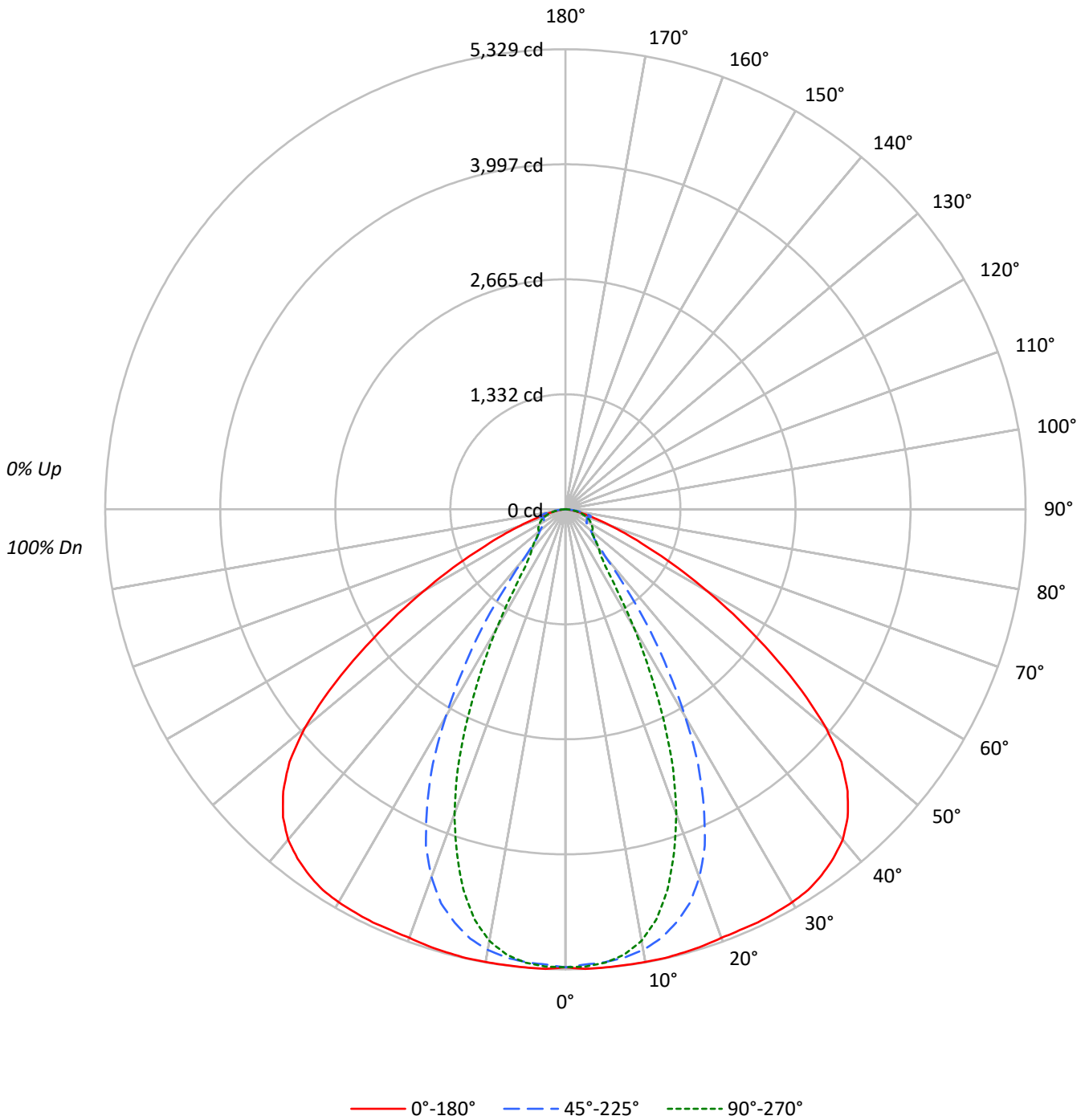
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7490.5 lumens
Efficiency: N/A
Efficacy: 138.7 lumens/watt
Spacing Criteria (0/90/45): 1.48 / 0.81 / 0.89
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

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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				10	0
RW	70	50	30	10	70	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	100
1	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	80	79
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	70
4	90	80	73	68	88	79	72	67	77	71	66	74	70	66	72	68	65	63
5	84	74	66	61	82	73	66	60	71	64	60	69	63	59	67	62	59	57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	53	52
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47
8	70	58	51	46	68	58	51	46	56	50	46	55	50	45	54	49	45	44
9	66	54	47	42	65	54	47	42	53	47	42	52	46	42	51	46	42	40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17133	17133	17133
5°	17266	17067	17094
10°	17458	16994	16643
15°	17763	16574	15259
20°	18154	15586	12899
25°	18807	13509	9585
30°	19593	10346	5947
35°	20399	6689	3190
40°	21060	3114	2554
45°	21105	2113	2175
50°	19787	1936	2002
55°	16359	1744	2171
60°	12244	1839	2229
65°	8254	2103	2388
70°	5239	2564	2457
75°	3162	3819	2452
80°	1928	3409	2284
85°	1249	2208	1567



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	502.3	6.7
10°-20°	1386.7	18.5
20°-30°	1771.0	23.6
30°-40°	1436.4	19.2
40°-50°	1016.4	13.6
50°-60°	661.9	8.8
60°-70°	406.5	5.4
70°-80°	241.4	3.2
80°-90°	67.8	0.9
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°	3660.0	48.9
0°-40°	5096.5	68.0
0°-60°	6774.7	90.4
0°-90°	7490.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7490.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5306	5306	5306	5306	5306	
5°	5327	5315	5265	5286	5273	508
15°	5313	5242	4958	4700	4564	1505
25°	5278	4843	3791	2948	2690	2440
35°	5175	3513	1697	910	809	3236
45°	4622	1768	463	492	476	3525
55°	2906	595	310	362	386	2597
65°	1080	305	275	330	312	1122
75°	253	173	306	224	196	296
85°	34	67	60	53	42	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5305.6	5305.6	5305.6	5305.6	5305.6
2.5°	5329.3	5318.8	5278.3	5310.2	5301.1
5°	5326.6	5315.2	5265.2	5286.5	5273.3
7.5°	5324.7	5307.9	5237.0	5230.6	5203.3
10°	5324.3	5294.7	5182.8	5121.4	5075.5
12.5°	5325.2	5272.9	5094.1	4958.6	4865.3
15°	5313.4	5241.5	4957.7	4700.2	4564.2
17.5°	5302.5	5169.6	4785.7	4384.1	4179.8
20°	5282.9	5098.7	4535.5	3996.5	3753.6
22.5°	5277.4	4991.3	4219.4	3497.5	3256.9
25°	5278.3	4842.6	3791.4	2947.6	2690.1
27.5°	5268.3	4644.3	3325.1	2415.8	2111.1
30°	5254.7	4363.1	2774.7	1845.9	1594.8
32.5°	5230.6	3968.8	2211.1	1315.5	1107.2
35°	5174.6	3513.0	1696.7	910.2	809.2
37.5°	5096.9	3006.3	1144.0	683.2	666.8
40°	4995.9	2546.4	738.7	597.2	605.9
42.5°	4839.4	2149.3	539.5	543.1	544.0
45°	4621.5	1768.5	462.6	491.7	476.3
47.5°	4334.9	1388.7	420.3	428.5	426.2
50°	3938.7	1039.8	385.3	383.5	398.5
52.5°	3448.8	769.2	349.3	364.8	393.0
55°	2905.7	595.4	309.8	361.6	385.7
57.5°	2384.9	482.6	287.0	352.5	366.6
60°	1895.9	402.1	284.8	335.7	345.2
62.5°	1464.7	344.8	283.4	327.5	331.1
65°	1080.3	305.2	275.2	330.2	312.5
67.5°	786.9	292.5	268.8	325.7	287.9
70°	554.9	257.0	271.6	300.7	260.2
72.5°	376.6	214.7	302.0	265.2	227.9
75°	253.4	173.3	306.1	224.3	196.5
77.5°	164.7	144.2	260.2	183.3	162.8
80°	103.7	120.1	183.3	141.0	122.8
82.5°	67.3	92.3	116.0	99.6	84.6
85°	33.7	67.3	59.6	53.2	42.3
87.5°	20.0	40.9	31.8	23.2	21.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)