

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: P685413

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

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685413
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-16-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

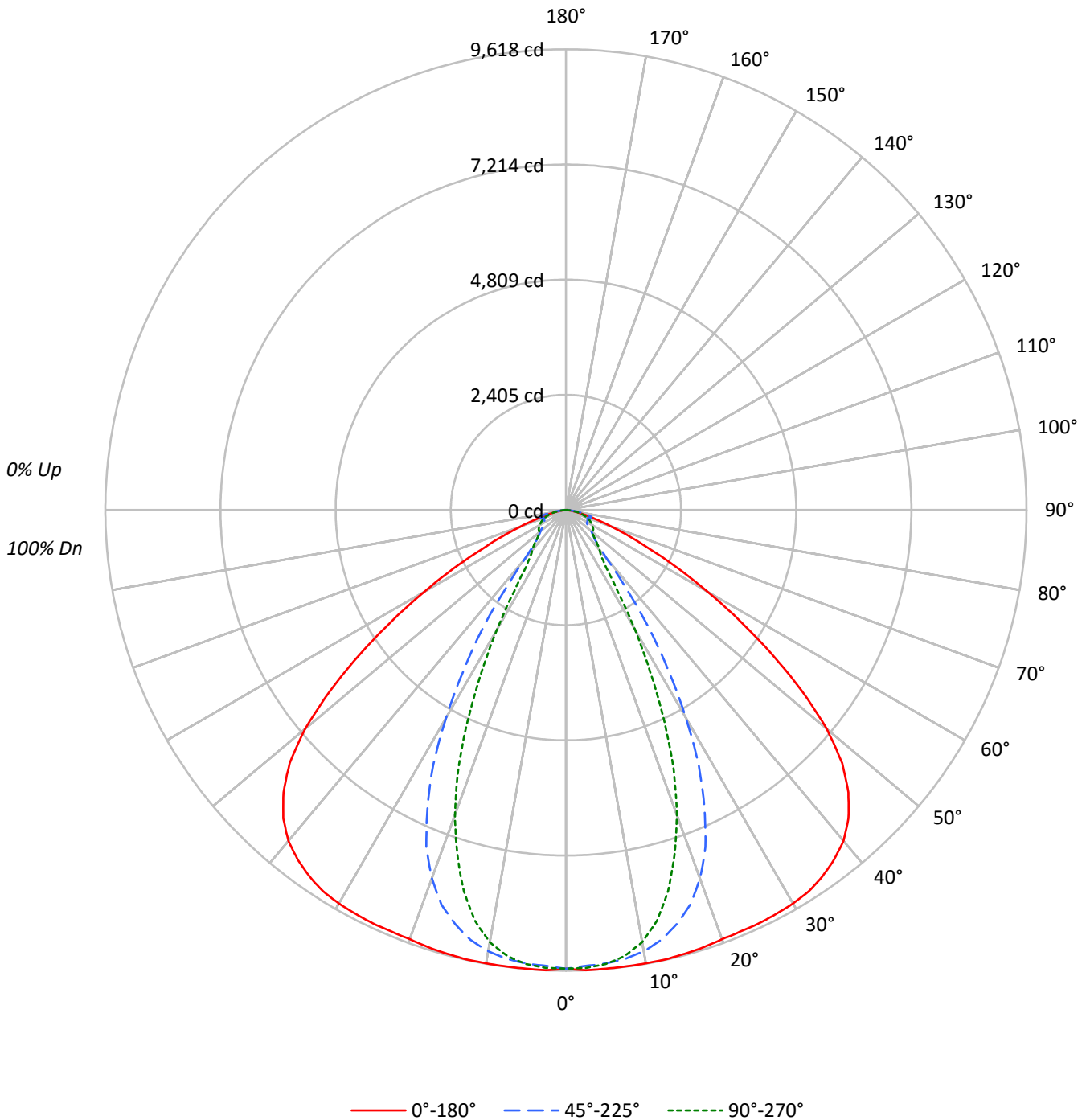
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13518.8 lumens
Efficiency: N/A
Efficacy: 131.3 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): 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				
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	100	100	100	100
1	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89	89	89	89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	80	79	79	79	79
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	70	70	70	70
4	90	80	73	68	88	79	72	67	77	71	66	74	70	66	72	68	65	63	63	63	63
5	84	74	66	61	82	73	66	60	71	64	60	69	63	59	67	62	59	57	57	57	57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	53	52	52	52	52
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47	47	47	47
8	70	58	51	46	68	58	51	46	56	50	46	55	50	45	54	49	45	44	44	44	44
9	66	54	47	42	65	54	47	42	53	47	42	52	46	42	51	46	42	40	40	40	40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37	37	37	37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	30921	30921	30921
5°	31162	30802	30850
10°	31509	30671	30036
15°	32059	29912	27538
20°	32765	28129	23280
25°	33942	24380	17299
30°	35362	18673	10732
35°	36816	12071	5757
40°	38008	5620	4610
45°	38090	3813	3925
50°	35712	3493	3613
55°	29524	3148	3920
60°	22099	3319	4024
65°	14897	3795	4309
70°	9457	4627	4434
75°	5706	6893	4424
80°	3481	6152	4123
85°	2249	3983	2827



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	906.5	6.7
10°-20°	2502.7	18.5
20°-30°	3196.4	23.6
30°-40°	2592.4	19.2
40°-50°	1834.3	13.6
50°-60°	1194.7	8.8
60°-70°	733.7	5.4
70°-80°	435.8	3.2
80°-90°	122.4	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°	6605.6	48.9
0°-40°	9198.0	68.0
0°-60°	12226.9	90.4
0°-90°	13518.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13518.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9576	9576	9576	9576	9576	
5°	9613	9593	9502	9541	9517	917
15°	9590	9460	8948	8483	8237	2716
25°	9526	8740	6843	5320	4855	4405
35°	9339	6340	3062	1643	1460	5841
45°	8341	3192	835	887	860	6362
55°	5244	1075	559	653	696	4686
65°	1950	551	497	596	564	2026
75°	457	313	552	405	355	533
85°	61	122	108	96	76	85
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9575.5	9575.5	9575.5	9575.5	9575.5
2.5°	9618.2	9599.3	9526.2	9583.7	9567.3
5°	9613.3	9592.7	9502.4	9541.0	9517.2
7.5°	9610.0	9579.6	9451.5	9440.1	9390.8
10°	9609.2	9555.8	9353.9	9243.0	9160.1
12.5°	9610.8	9516.4	9193.8	8949.1	8780.8
15°	9589.5	9459.8	8947.5	8482.8	8237.4
17.5°	9569.8	9330.0	8637.2	7912.3	7543.7
20°	9534.5	9202.0	8185.6	7212.8	6774.4
22.5°	9524.6	9008.2	7615.1	6312.2	5878.0
25°	9526.2	8739.8	6842.6	5319.7	4855.1
27.5°	9508.2	8381.9	6001.1	4360.0	3810.0
30°	9483.6	7874.5	5007.8	3331.4	2878.2
32.5°	9440.1	7162.7	3990.6	2374.2	1998.2
35°	9339.1	6340.2	3062.1	1642.7	1460.5
37.5°	9198.7	5425.6	2064.7	1233.1	1203.5
40°	9016.4	4595.7	1333.2	1077.9	1093.5
42.5°	8734.0	3879.0	973.6	980.2	981.9
45°	8340.8	3191.8	834.9	887.4	859.5
47.5°	7823.6	2506.3	758.6	773.3	769.2
50°	7108.6	1876.7	695.3	692.1	719.1
52.5°	6224.4	1388.2	630.5	658.4	709.3
55°	5244.2	1074.6	559.1	652.7	696.2
57.5°	4304.2	871.0	518.0	636.2	661.7
60°	3421.7	725.7	513.9	605.9	623.1
62.5°	2643.4	622.3	511.4	591.1	597.6
65°	1949.7	550.9	496.7	596.0	564.0
67.5°	1420.2	527.9	485.2	587.8	519.7
70°	1001.6	463.8	490.1	542.6	469.6
72.5°	679.7	387.5	545.1	478.6	411.3
75°	457.3	312.8	552.5	404.7	354.6
77.5°	297.2	260.2	469.6	330.8	293.9
80°	187.2	216.7	330.8	254.5	221.7
82.5°	121.5	166.7	209.3	179.8	152.7
85°	60.7	121.5	107.5	96.1	76.3
87.5°	36.1	73.9	57.5	41.9	38.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)