

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: P685370

Luminaire Tested: **4CZL-7-UNV-N-L840-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685370
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-7-UNV-N-L840-CD-U
Description: METALUX CRUZE LINEAR 4FT NARROW LENS MODEL @80 CRI and 4000K
Light Source: (392) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

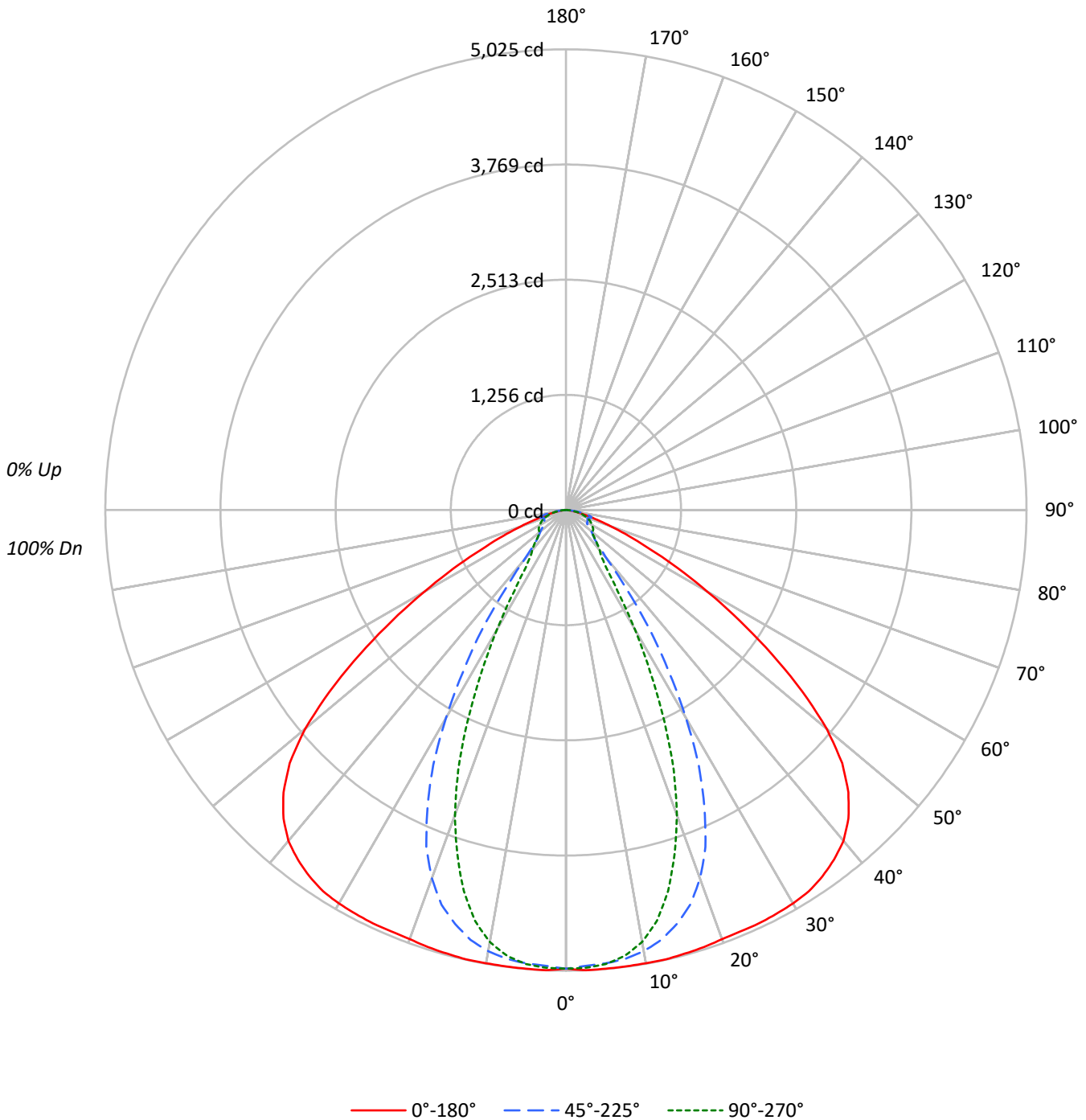
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7062.4 lumens
Efficiency: N/A
Efficacy: 160.5 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): 44
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°	16154	16154	16154
5°	16279	16092	16117
10°	16460	16023	15691
15°	16748	15627	14386
20°	17117	14695	12162
25°	17732	12736	9037
30°	18473	9755	5607
35°	19233	6306	3008
40°	19856	2936	2408
45°	19899	1992	2050
50°	18656	1825	1887
55°	15424	1644	2048
60°	11544	1734	2102
65°	7783	1983	2251
70°	4940	2417	2316
75°	2981	3601	2312
80°	1819	3213	2153
85°	1175	2082	1478



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	473.6	6.7
10°-20°	1307.4	18.5
20°-30°	1669.8	23.6
30°-40°	1354.3	19.2
40°-50°	958.3	13.6
50°-60°	624.1	8.8
60°-70°	383.3	5.4
70°-80°	227.6	3.2
80°-90°	64.0	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°	3450.8	48.9
0°-40°	4805.1	68.0
0°-60°	6387.5	90.4
0°-90°	7062.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7062.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5002	5002	5002	5002	5002	
5°	5022	5011	4964	4984	4972	479
15°	5010	4942	4674	4432	4303	1419
25°	4977	4566	3575	2779	2536	2301
35°	4879	3312	1600	858	763	3051
45°	4357	1668	436	464	449	3324
55°	2740	561	292	341	364	2448
65°	1019	288	260	311	295	1058
75°	239	163	289	211	185	279
85°	32	64	56	50	40	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5002.4	5002.4	5002.4	5002.4	5002.4
2.5°	5024.7	5014.8	4976.6	5006.6	4998.1
5°	5022.1	5011.4	4964.2	4984.3	4971.9
7.5°	5020.4	5004.5	4937.6	4931.6	4905.9
10°	5019.9	4992.1	4886.6	4828.7	4785.3
12.5°	5020.8	4971.5	4802.9	4675.1	4587.2
15°	5009.6	4941.9	4674.3	4431.5	4303.3
17.5°	4999.3	4874.1	4512.2	4133.5	3940.9
20°	4980.9	4807.2	4276.3	3768.1	3539.0
22.5°	4975.8	4706.0	3978.2	3297.6	3070.7
25°	4976.6	4565.8	3574.6	2779.1	2536.3
27.5°	4967.2	4378.8	3135.0	2277.7	1990.4
30°	4954.3	4113.7	2616.1	1740.4	1503.6
32.5°	4931.6	3741.9	2084.7	1240.3	1043.9
35°	4878.8	3312.2	1599.7	858.2	763.0
37.5°	4805.5	2834.4	1078.6	644.2	628.7
40°	4710.3	2400.8	696.5	563.1	571.3
42.5°	4562.8	2026.4	508.6	512.1	512.9
45°	4357.3	1667.5	436.2	463.6	449.0
47.5°	4087.1	1309.3	396.3	404.0	401.9
50°	3713.6	980.4	363.3	361.5	375.7
52.5°	3251.7	725.2	329.4	344.0	370.5
55°	2739.6	561.4	292.1	341.0	363.7
57.5°	2248.6	455.0	270.6	332.4	345.7
60°	1787.5	379.1	268.5	316.5	325.5
62.5°	1381.0	325.1	267.2	308.8	312.2
65°	1018.6	287.8	259.5	311.4	294.6
67.5°	741.9	275.8	253.5	307.1	271.5
70°	523.2	242.3	256.0	283.5	245.3
72.5°	355.1	202.4	284.8	250.0	214.9
75°	238.9	163.4	288.6	211.4	185.3
77.5°	155.3	136.0	245.3	172.8	153.5
80°	97.8	113.2	172.8	133.0	115.8
82.5°	63.5	87.1	109.4	93.9	79.8
85°	31.7	63.5	56.2	50.2	39.9
87.5°	18.9	38.6	30.0	21.9	20.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)