

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: P685383

Luminaire Tested: **4CZL-16-UNV-N-L850-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685383
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-L850-CD-U
Description: METALUX CRUZE LINEAR 4FT NARROW LENS MODEL @80 CRI and 5000K
Light Source: (588) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

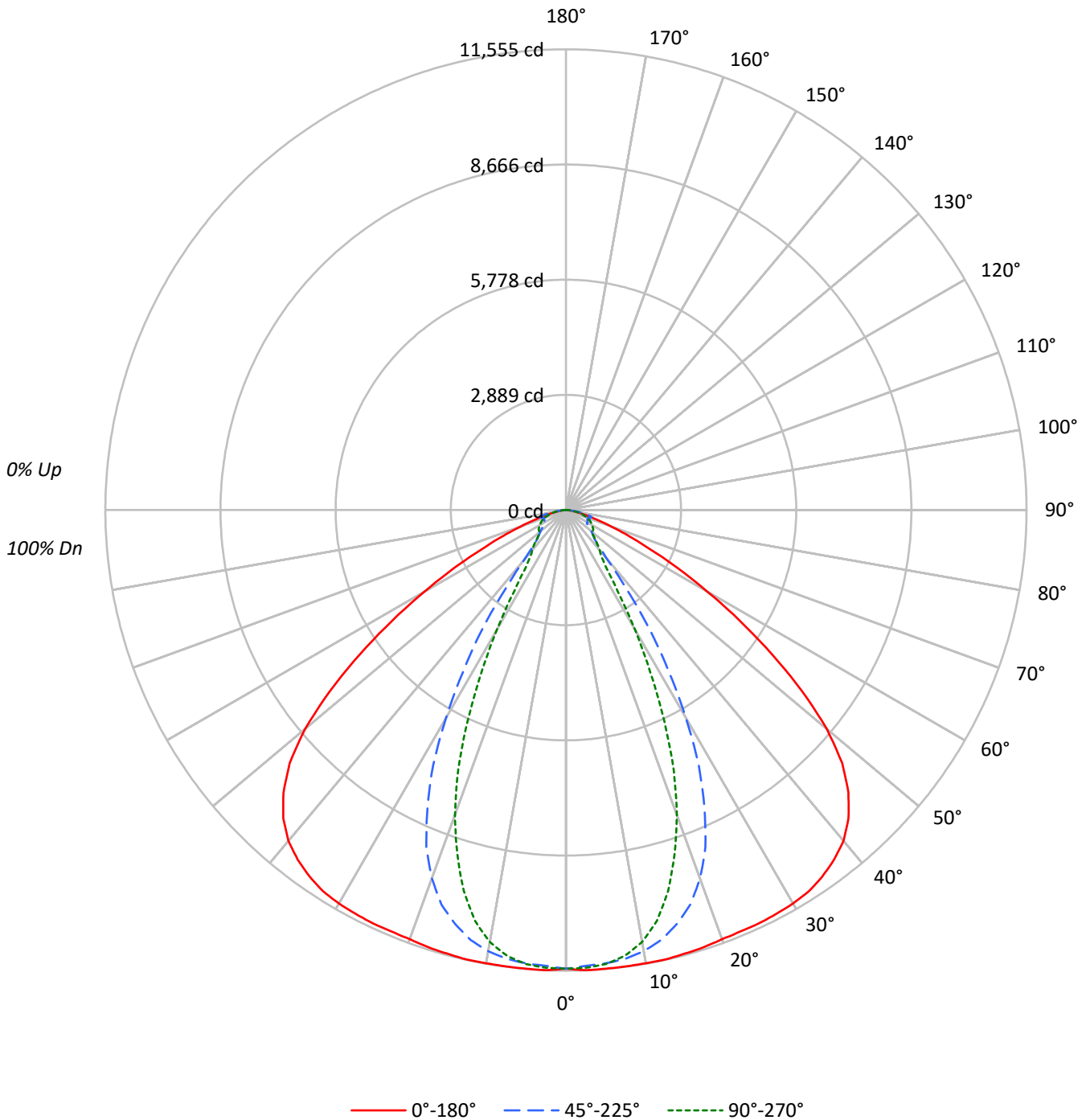
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16240.7 lumens
Efficiency: N/A
Efficacy: 157.7 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): 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°	37147	37147	37147
5°	37436	37004	37062
10°	37852	36847	36083
15°	38513	35935	33083
20°	39361	33793	27967
25°	40776	29289	20782
30°	42482	22432	12893
35°	44228	14502	6916
40°	45660	6751	5538
45°	45759	4580	4716
50°	42902	4196	4340
55°	35469	3781	4708
60°	26548	3987	4835
65°	17897	4559	5177
70°	11360	5559	5326
75°	6853	8281	5316
80°	4182	7392	4952
85°	2705	4787	3398



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1089.0	6.7
10°-20°	3006.6	18.5
20°-30°	3839.9	23.6
30°-40°	3114.4	19.2
40°-50°	2203.6	13.6
50°-60°	1435.2	8.8
60°-70°	881.4	5.4
70°-80°	523.5	3.2
80°-90°	147.1	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°	7935.5	48.9
0°-40°	11049.9	68.0
0°-60°	14688.7	90.4
0°-90°	16240.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	16240.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	11503	11503	11503	11503	11503	
5°	11549	11524	11416	11462	11433	1102
15°	11520	11364	10749	10191	9896	3263
25°	11444	10500	8220	6391	5833	5291
35°	11219	7617	3679	1974	1754	7017
45°	10020	3834	1003	1066	1033	7643
55°	6300	1291	672	784	836	5630
65°	2342	662	597	716	678	2434
75°	549	376	664	486	426	641
85°	73	146	129	115	92	102
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	11503.4	11503.4	11503.4	11503.4	11503.4
2.5°	11554.7	11532.0	11444.3	11513.3	11493.6
5°	11548.8	11524.1	11415.7	11462.0	11433.4
7.5°	11544.9	11508.4	11354.5	11340.7	11281.5
10°	11543.9	11479.8	11237.2	11104.0	11004.4
12.5°	11545.8	11432.4	11044.8	10750.9	10548.8
15°	11520.2	11364.4	10749.0	10190.8	9895.9
17.5°	11496.5	11208.6	10376.2	9505.3	9062.5
20°	11454.1	11054.7	9833.7	8665.1	8138.4
22.5°	11442.3	10821.9	9148.3	7583.2	7061.4
25°	11444.3	10499.5	8220.3	6390.8	5832.6
27.5°	11422.6	10069.5	7209.4	5237.9	4577.1
30°	11393.0	9460.0	6016.0	4002.1	3457.7
32.5°	11340.7	8604.9	4794.1	2852.2	2400.5
35°	11219.4	7616.7	3678.7	1973.5	1754.5
37.5°	11050.8	6518.0	2480.4	1481.3	1445.8
40°	10831.8	5520.9	1601.6	1294.9	1313.7
42.5°	10492.5	4660.0	1169.7	1177.6	1179.5
45°	10020.1	3834.5	1003.0	1066.1	1032.6
47.5°	9398.8	3011.0	911.3	929.0	924.1
50°	8539.8	2254.5	835.3	831.4	863.9
52.5°	7477.6	1667.7	757.4	791.0	852.1
55°	6300.1	1291.0	671.6	784.1	836.3
57.5°	5170.8	1046.4	622.3	764.3	794.9
60°	4110.6	871.8	617.4	727.8	748.6
62.5°	3175.7	747.6	614.4	710.1	718.0
65°	2342.3	661.8	596.7	716.0	677.5
67.5°	1706.2	634.1	582.9	706.1	624.3
70°	1203.2	557.2	588.8	651.9	564.1
72.5°	816.6	465.5	654.9	575.0	494.1
75°	549.3	375.8	663.7	486.2	426.1
77.5°	357.0	312.6	564.1	397.5	353.1
80°	224.9	260.4	397.5	305.7	266.3
82.5°	146.0	200.2	251.5	216.0	183.4
85°	73.0	146.0	129.2	115.4	91.7
87.5°	43.4	88.8	69.0	50.3	46.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)