

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: P685434

Luminaire Tested: **8CZL-10-UNV-M-L840-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685434  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8CZL-10-UNV-M-L840-CD-U  
Description: METALUX CRUZE LINEAR 8FT MEDIUM LENS MODEL @80 CRI and 4000K  
Light Source: (784) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

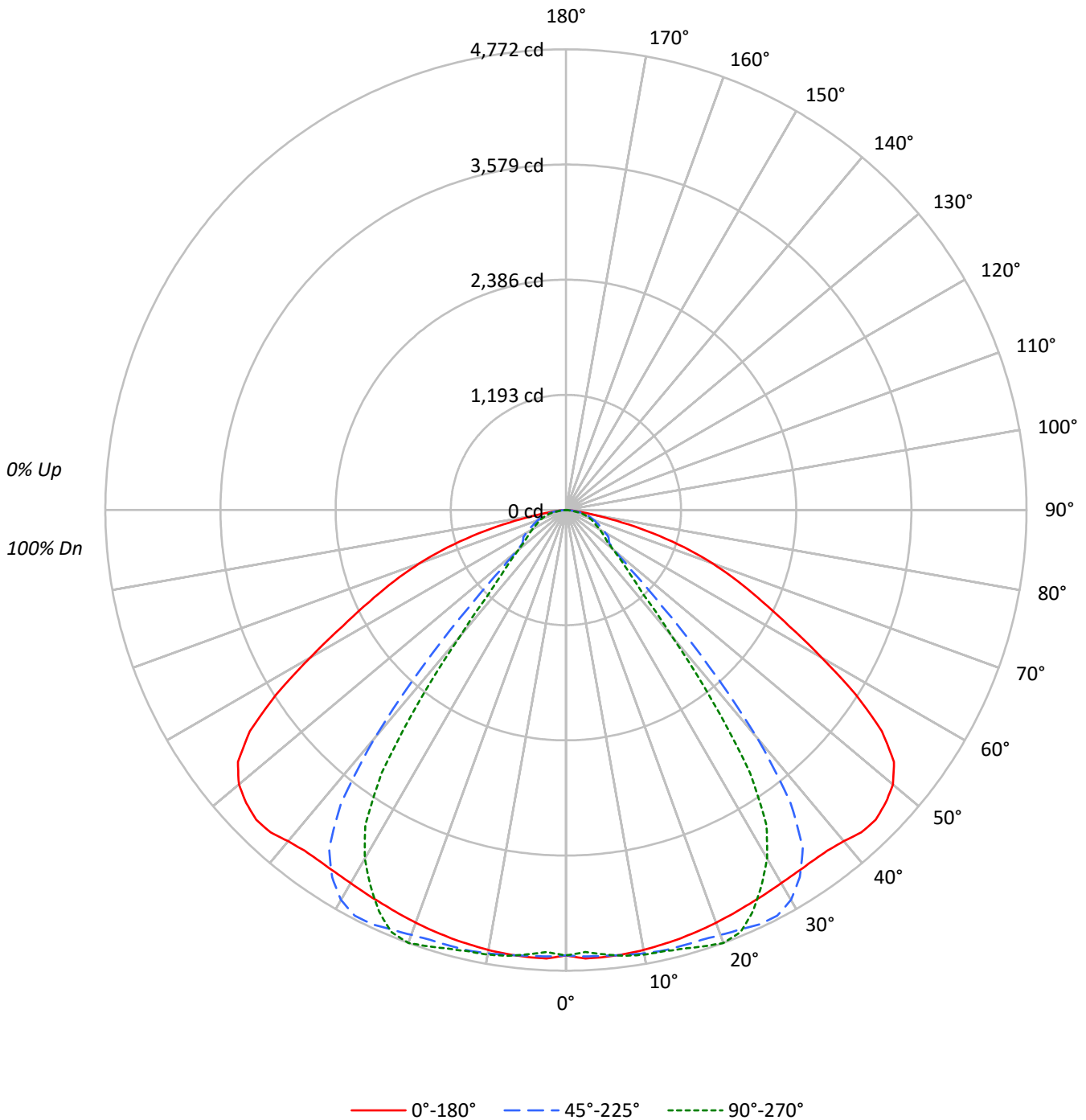
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9966.5 lumens  
Efficiency: N/A  
Efficacy: 158.2 lumens/watt  
Spacing Criteria (0/90/45): 1.48 / 1.28 / 1.22  
Luminous Opening: Rectangular (W 0.83' x L: 8' x H: 0')  
CIE Type: Direct

Input Watts (W): 63  
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	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	90	90	90	88
2	103	96	90	86	100	94	89	85	91	87	83	88	84	81	85	82	79	79	79	79	77
3	95	86	80	74	93	85	79	73	82	77	72	79	75	71	77	73	70	70	70	70	68
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	62	62	62	60
5	82	71	63	57	80	70	63	57	68	61	56	66	60	56	64	59	55	55	55	55	53
6	76	65	57	51	75	64	56	51	62	55	51	61	55	50	59	54	50	50	50	50	48
7	71	59	51	46	70	59	51	46	57	50	46	56	50	45	54	49	45	45	45	45	43
8	67	55	47	42	65	54	47	41	53	46	41	51	45	41	50	45	41	41	41	41	39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	37	37	37	36
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	34	34	34	33

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	7448	7448	7448
5°	7532	7510	7489
10°	7586	7646	7667
15°	7676	7808	7863
20°	7818	8046	8198
25°	8018	8438	8168
30°	8320	8692	7770
35°	8757	8432	6561
40°	9438	6503	3589
45°	10362	3197	2145
50°	11110	1671	1599
55°	11252	1525	1380
60°	9868	1520	1301
65°	8587	1460	1260
70°	7620	1479	1268
75°	5845	1519	1288
80°	2975	1543	1066
85°	1173	871	304



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	442.0	4.4
10°-20°	1317.4	13.2
20°-30°	2126.1	21.3
30°-40°	2490.0	25.0
40°-50°	1695.1	17.0
50°-60°	981.5	9.8
60°-70°	561.2	5.6
70°-80°	288.8	2.9
80°-90°	64.3	0.6
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°	3885.5	39.0
0°-40°	6375.5	64.0
0°-60°	9052.2	90.8
0°-90°	9966.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9966.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4613	4613	4613	4613	4613	
5°	4647	4601	4634	4628	4621	443
15°	4592	4586	4671	4683	4704	1300
25°	4501	4564	4736	4664	4585	2083
35°	4443	4662	4278	3608	3329	2797
45°	4538	3376	1400	943	939	3486
55°	3997	1159	542	504	490	3483
65°	2248	413	382	338	330	2254
75°	937	255	244	212	206	996
85°	63	77	47	22	16	107
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4613.1	4613.1	4613.1	4613.1	4613.1	4613.1	4613.1	4613.1	4613.1	4613.1	4613.1
2.5°	4650.3	4637.2	4611.0	4600.0	4600.0	4628.4	4632.8	4615.3	4612.0	4596.8	4582.6
5°	4647.0	4633.9	4608.8	4598.9	4602.2	4633.9	4641.5	4627.3	4631.7	4627.3	4620.8
7.5°	4640.4	4626.2	4603.3	4596.8	4606.6	4647.0	4660.1	4652.5	4662.3	4660.1	4657.9
10°	4627.3	4616.4	4594.6	4593.5	4613.1	4663.4	4679.8	4669.9	4673.2	4672.1	4676.5
12.5°	4609.9	4600.0	4581.5	4591.3	4619.7	4673.2	4684.1	4668.8	4673.2	4674.3	4681.9
15°	4592.4	4580.4	4568.4	4591.3	4620.8	4671.0	4681.9	4679.8	4692.9	4694.0	4703.8
17.5°	4570.5	4562.9	4559.6	4590.2	4613.1	4668.8	4694.0	4707.1	4724.5	4728.9	4738.7
20°	4549.8	4543.2	4550.9	4584.7	4609.9	4683.0	4718.0	4737.6	4756.2	4761.7	4771.5
22.5°	4524.7	4520.3	4541.1	4577.1	4615.3	4704.9	4744.2	4746.4	4738.7	4724.5	4731.1
25°	4500.6	4500.6	4531.2	4574.9	4631.7	4736.5	4739.8	4677.6	4621.9	4584.7	4584.7
27.5°	4481.0	4485.4	4523.6	4584.7	4663.4	4738.7	4648.1	4524.7	4442.8	4389.3	4386.0
30°	4462.4	4470.1	4523.6	4612.0	4686.3	4662.3	4486.4	4336.8	4223.2	4171.9	4167.5
32.5°	4449.3	4461.3	4543.2	4653.5	4659.0	4508.3	4278.9	4090.0	3955.7	3879.2	3866.1
35°	4442.8	4457.0	4580.4	4689.6	4548.7	4277.9	3952.4	3660.8	3447.8	3349.5	3328.8
37.5°	4447.1	4472.3	4631.7	4659.0	4272.4	3824.6	3357.2	2938.9	2646.2	2553.4	2489.0
40°	4477.7	4520.3	4672.1	4410.0	3692.5	3085.3	2466.0	2016.1	1814.0	1747.4	1702.6
42.5°	4529.0	4571.6	4566.2	3839.9	2884.3	2191.9	1589.0	1319.3	1221.0	1210.1	1189.3
45°	4537.8	4554.2	4223.2	3094.0	2098.0	1400.1	1023.3	943.6	941.4	949.1	939.2
47.5°	4491.9	4460.2	3728.5	2366.6	1444.9	905.4	769.9	783.1	789.6	784.1	776.5
50°	4423.1	4306.2	3173.7	1739.8	963.3	665.1	671.7	683.7	660.7	645.4	636.7
52.5°	4283.3	4056.2	2557.8	1233.0	666.2	567.9	620.3	585.4	552.6	543.9	542.8
55°	3997.2	3684.8	1968.0	889.0	508.9	541.7	551.5	506.7	496.9	492.5	490.4
57.5°	3561.4	3222.9	1479.8	642.2	446.7	523.1	479.4	462.0	452.1	448.9	445.6
60°	3055.8	2706.3	1103.0	471.8	433.6	470.7	434.7	418.3	407.4	403.0	403.0
62.5°	2608.0	2239.9	815.8	383.3	430.3	424.8	392.1	374.6	368.0	365.9	363.7
65°	2247.6	1802.0	588.7	354.9	401.9	382.2	350.6	338.6	334.2	329.8	329.8
67.5°	1926.5	1411.0	433.6	348.4	369.1	344.0	320.0	310.2	304.7	303.6	302.5
70°	1614.2	1039.7	329.8	340.7	350.6	313.4	290.5	278.5	271.9	268.7	268.7
72.5°	1285.4	713.2	263.2	313.4	321.1	277.4	254.5	245.7	240.3	237.0	235.9
75°	937.0	447.8	231.5	263.2	276.3	243.5	220.6	213.0	210.8	207.5	206.4
77.5°	596.3	267.6	197.7	215.1	226.1	205.3	187.8	178.0	176.9	173.6	172.6
80°	320.0	171.5	158.4	169.3	175.8	166.0	145.3	125.6	120.1	115.8	114.7
82.5°	148.5	109.2	117.9	127.8	131.1	105.9	87.4	78.6	73.2	67.7	64.4
85°	63.3	59.0	73.2	78.6	64.4	47.0	30.6	22.9	18.6	17.5	16.4
87.5°	22.9	22.9	27.3	18.6	10.9	8.7	8.7	7.6	6.6	5.5	5.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)