

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: P685579

Luminaire Tested: **4CZL-5-UNV-FL-L940-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685579  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4CZL-5-UNV-FL-L940-CD-U  
Description: METALUX CRUZE LINEAR 4FT FROSTED LENS MODEL @90 CRI and 4000K  
Light Source: (392) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

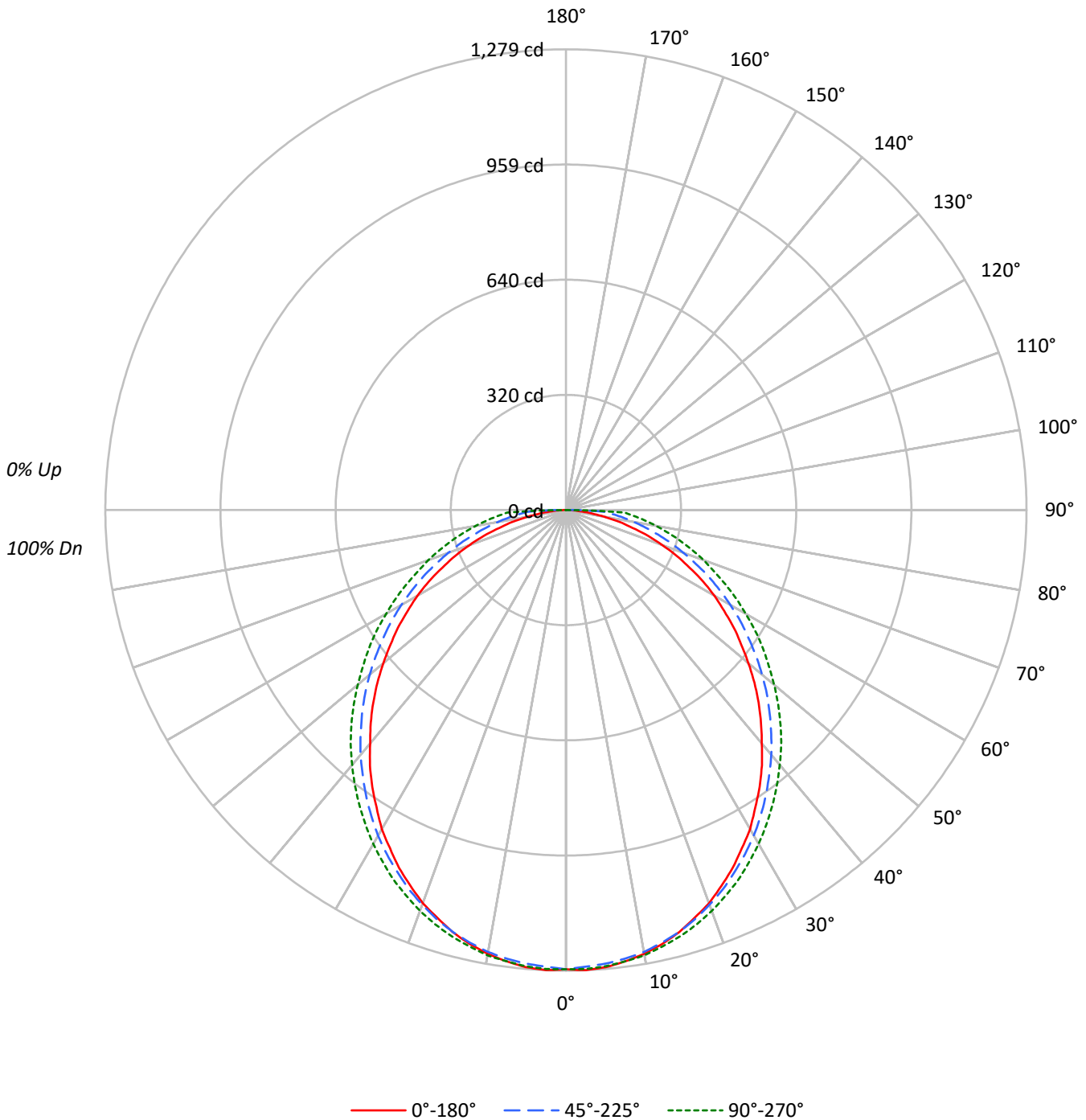
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3591.6 lumens  
Efficiency: N/A  
Efficacy: 115.9 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.83' x L: 4' x H: 0.08')  
CIE Type: Direct

Input Watts (W): 31  
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				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	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	84	84	84	82
2	98	89	82	76	95	87	81	75	84	78	74	81	76	72	78	74	70	70	70	70	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	59	59	59	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	51	51	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	44	44	44	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	39	39	39	37
7	64	51	42	36	63	50	41	36	48	41	35	47	40	35	46	39	35	35	35	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	31	31	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	28	28	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	26	26	26	24

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

	0°	45°	90°
0°	4118	4118	4118
5°	4122	4068	4086
10°	4087	4024	4044
15°	4034	3964	3990
20°	3963	3887	3927
25°	3868	3798	3856
30°	3767	3708	3773
35°	3643	3600	3683
40°	3504	3490	3592
45°	3386	3368	3498
50°	3244	3242	3387
55°	3111	3105	3287
60°	2966	2967	3172
65°	2773	2819	3073
70°	2548	2654	3012
75°	2217	2511	2977
80°	1790	2408	3016
85°	1146	2426	3268



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	120.6	3.4
10°-20°	343.2	9.6
20°-30°	512.6	14.3
30°-40°	606.2	16.9
40°-50°	617.7	17.2
50°-60°	553.5	15.4
60°-70°	431.1	12.0
70°-80°	279.1	7.8
80°-90°	127.5	3.6
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°	976.4	27.2
0°-40°	1582.6	44.1
0°-60°	2753.9	76.7
0°-90°	3591.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3591.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1275	1275	1275	1275	1275	
5°	1274	1272	1264	1272	1271	121
15°	1214	1214	1213	1224	1225	342
25°	1096	1100	1108	1128	1133	504
35°	938	947	968	994	1000	586
45°	757	770	800	831	842	583
55°	569	585	619	654	667	508
65°	379	396	436	473	488	377
75°	192	216	265	310	328	205
85°	38	74	129	176	189	49
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1275.1	1275.1	1275.1	1275.1	1275.1
2.5°	1278.7	1276.5	1268.8	1275.6	1275.3
5°	1273.9	1271.7	1264.2	1271.7	1271.4
7.5°	1263.9	1263.2	1256.4	1264.7	1263.9
10°	1251.1	1250.1	1245.7	1254.0	1255.2
12.5°	1234.1	1233.6	1230.2	1239.9	1240.7
15°	1213.5	1213.5	1212.8	1224.2	1225.4
17.5°	1187.1	1190.5	1191.2	1203.6	1206.2
20°	1161.9	1162.9	1166.3	1181.3	1184.4
22.5°	1128.7	1132.8	1139.6	1156.1	1158.7
25°	1096.2	1100.1	1108.3	1128.0	1132.8
27.5°	1058.4	1065.9	1077.3	1096.9	1101.8
30°	1022.5	1028.8	1043.6	1065.4	1070.3
32.5°	978.7	989.3	1006.3	1029.3	1035.9
35°	937.7	946.7	967.8	993.9	999.7
37.5°	893.8	904.5	926.8	954.7	962.7
40°	845.8	861.4	887.3	915.2	923.6
42.5°	802.0	816.3	843.7	875.2	884.9
45°	756.9	770.5	800.5	831.1	842.5
47.5°	709.9	723.9	756.7	789.1	799.3
50°	661.7	678.4	711.1	745.3	754.5
52.5°	613.7	630.4	665.0	699.2	709.6
55°	569.1	585.1	618.8	654.4	667.2
57.5°	520.6	537.6	574.6	609.1	622.9
60°	475.8	488.1	527.4	563.0	576.3
62.5°	429.5	442.8	481.1	517.7	533.4
65°	379.1	395.5	436.5	473.1	488.4
67.5°	333.0	348.8	390.9	432.1	444.5
70°	285.3	303.4	347.1	389.2	406.7
72.5°	239.7	258.6	306.6	348.5	366.2
75°	191.5	215.9	265.4	309.5	327.7
77.5°	151.7	176.0	226.6	272.7	290.1
80°	107.6	137.4	192.2	238.7	254.2
82.5°	71.7	102.0	159.5	204.8	221.5
85°	38.3	73.9	129.4	176.2	189.0
87.5°	16.7	51.6	104.9	146.6	161.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)