

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: P685559

Luminaire Tested: **4CZL-5-UNV-FL-L850-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685559
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-L850-CD-U
Description: METALUX CRUZE LINEAR 4FT FROSTED LENS MODEL @80 CRI and 5000K
Light Source: (392) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

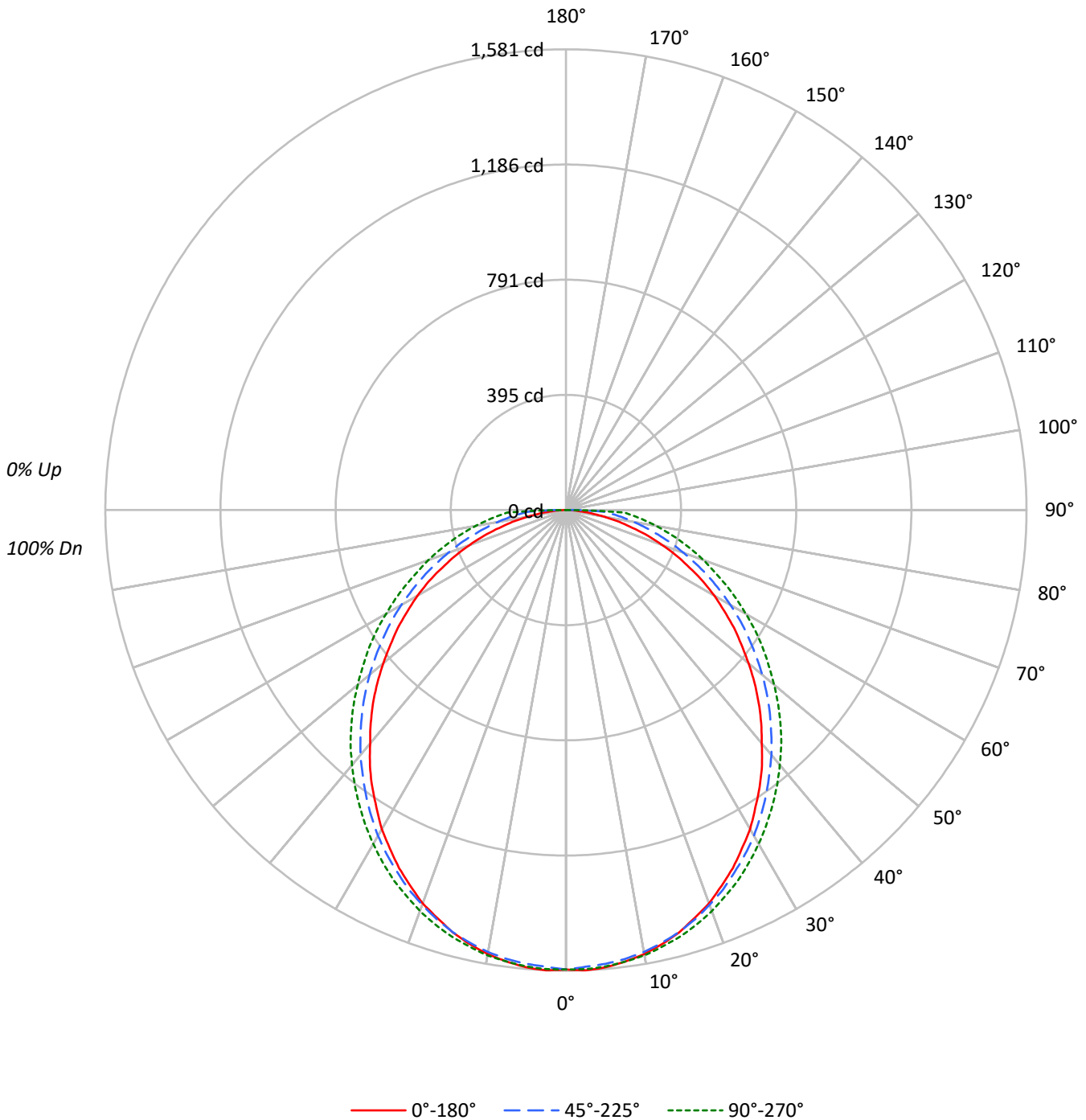
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4441.2 lumens
Efficiency: N/A
Efficacy: 143.3 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 (A_{in}): 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°	5091	5091	5091
5°	5097	5030	5052
10°	5054	4976	5001
15°	4989	4901	4934
20°	4900	4806	4856
25°	4783	4696	4769
30°	4659	4586	4665
35°	4505	4451	4554
40°	4333	4316	4442
45°	4187	4165	4325
50°	4011	4009	4188
55°	3847	3839	4065
60°	3667	3669	3923
65°	3428	3485	3800
70°	3150	3282	3725
75°	2741	3105	3682
80°	2214	2978	3731
85°	1418	2999	4042



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.1	3.4
10°-20°	424.4	9.6
20°-30°	633.8	14.3
30°-40°	749.6	16.9
40°-50°	763.8	17.2
50°-60°	684.4	15.4
60°-70°	533.1	12.0
70°-80°	345.1	7.8
80°-90°	157.7	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°	1207.4	27.2
0°-40°	1957.0	44.1
0°-60°	3405.2	76.7
0°-90°	4441.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4441.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1577	1577	1577	1577	1577	
5°	1575	1572	1563	1572	1572	149
15°	1501	1501	1500	1514	1515	423
25°	1356	1360	1370	1395	1401	624
35°	1160	1171	1197	1229	1236	725
45°	936	953	990	1028	1042	721
55°	704	724	765	809	825	628
65°	469	489	540	585	604	466
75°	237	267	328	383	405	254
85°	47	91	160	218	234	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1576.7	1576.7	1576.7	1576.7	1576.7
2.5°	1581.2	1578.5	1568.9	1577.3	1577.0
5°	1575.2	1572.5	1563.2	1572.5	1572.2
7.5°	1562.9	1562.0	1553.6	1563.8	1562.9
10°	1547.0	1545.8	1540.4	1550.6	1552.1
12.5°	1526.0	1525.4	1521.2	1533.2	1534.1
15°	1500.6	1500.6	1499.7	1513.8	1515.3
17.5°	1467.9	1472.1	1473.0	1488.3	1491.6
20°	1436.7	1437.9	1442.1	1460.7	1464.6
22.5°	1395.7	1400.8	1409.2	1429.5	1432.8
25°	1355.5	1360.3	1370.5	1394.8	1400.8
27.5°	1308.8	1318.1	1332.1	1356.4	1362.4
30°	1264.4	1272.2	1290.5	1317.5	1323.4
32.5°	1210.2	1223.3	1244.3	1272.8	1280.9
35°	1159.5	1170.6	1196.7	1229.0	1236.2
37.5°	1105.3	1118.5	1146.0	1180.5	1190.4
40°	1045.9	1065.1	1097.2	1131.6	1142.1
42.5°	991.7	1009.4	1043.2	1082.2	1094.2
45°	935.9	952.7	989.9	1027.6	1041.7
47.5°	877.8	895.2	935.6	975.8	988.4
50°	818.2	838.8	879.3	921.6	932.9
52.5°	758.8	779.5	822.4	864.6	877.5
55°	703.7	723.5	765.1	809.2	825.1
57.5°	643.7	664.7	710.6	753.1	770.2
60°	588.3	603.6	652.1	696.2	712.7
62.5°	531.1	547.5	594.9	640.1	659.6
65°	468.7	489.1	539.7	585.0	603.9
67.5°	411.8	431.3	483.4	534.4	549.6
70°	352.7	375.2	429.2	481.3	502.9
72.5°	296.4	319.8	379.1	431.0	452.8
75°	236.8	267.0	328.2	382.7	405.2
77.5°	187.6	217.6	280.2	337.2	358.7
80°	133.1	169.9	237.7	295.2	314.4
82.5°	88.7	126.2	197.2	253.2	273.9
85°	47.4	91.4	160.0	217.9	233.8
87.5°	20.7	63.8	129.8	181.3	200.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)