

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: P685539

Luminaire Tested: **4CZL-5-UNV-FL-L835-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685539
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-L835-CD-U
Description: METALUX CRUZE LINEAR 4FT FROSTED LENS MODEL @80 CRI and 3500K
Light Source: (392) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

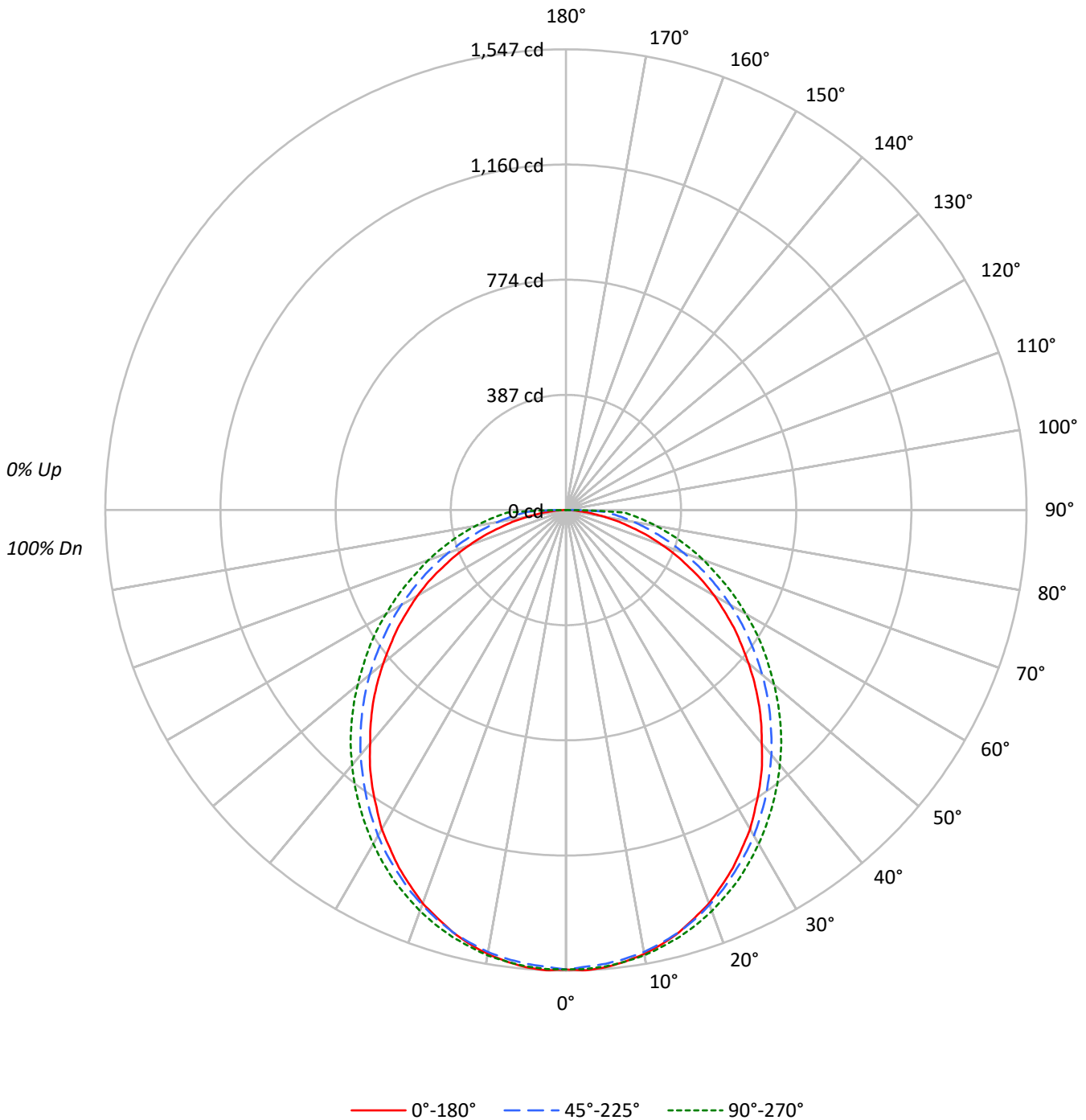
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4345.2 lumens
Efficiency: N/A
Efficacy: 140.2 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°	4981	4981	4981
5°	4987	4921	4943
10°	4945	4868	4893
15°	4881	4796	4827
20°	4794	4703	4751
25°	4680	4595	4666
30°	4558	4487	4564
35°	4408	4355	4456
40°	4240	4223	4346
45°	4096	4075	4231
50°	3924	3922	4097
55°	3764	3756	3977
60°	3588	3589	3839
65°	3354	3410	3717
70°	3082	3211	3644
75°	2681	3038	3602
80°	2165	2912	3650
85°	1386	2935	3954



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.9	3.4
10°-20°	415.2	9.6
20°-30°	620.1	14.3
30°-40°	733.4	16.9
40°-50°	747.3	17.2
50°-60°	669.6	15.4
60°-70°	521.6	12.0
70°-80°	337.7	7.8
80°-90°	154.3	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°	1181.3	27.2
0°-40°	1914.7	44.1
0°-60°	3331.7	76.7
0°-90°	4345.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4345.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1543	1543	1543	1543	1543	
5°	1541	1538	1529	1538	1538	146
15°	1468	1468	1467	1481	1482	413
25°	1326	1331	1341	1365	1370	610
35°	1134	1145	1171	1202	1210	709
45°	916	932	968	1005	1019	706
55°	688	708	749	792	807	615
65°	459	478	528	572	591	456
75°	232	261	321	374	396	249
85°	46	89	157	213	229	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1542.6	1542.6	1542.6	1542.6	1542.6
2.5°	1547.0	1544.4	1535.0	1543.2	1542.9
5°	1541.2	1538.5	1529.4	1538.5	1538.2
7.5°	1529.1	1528.2	1520.0	1530.0	1529.1
10°	1513.6	1512.4	1507.1	1517.1	1518.6
12.5°	1493.1	1492.5	1488.4	1500.1	1501.0
15°	1468.1	1468.1	1467.3	1481.0	1482.5
17.5°	1436.2	1440.3	1441.2	1456.1	1459.3
20°	1405.7	1406.9	1411.0	1429.1	1433.0
22.5°	1365.5	1370.5	1378.7	1398.6	1401.9
25°	1326.2	1330.9	1340.9	1364.6	1370.5
27.5°	1280.5	1289.6	1303.4	1327.1	1333.0
30°	1237.1	1244.7	1262.6	1289.0	1294.8
32.5°	1184.0	1196.9	1217.4	1245.3	1253.2
35°	1134.5	1145.3	1170.8	1202.5	1209.5
37.5°	1081.4	1094.3	1121.3	1155.0	1164.7
40°	1023.3	1042.1	1073.5	1107.2	1117.5
42.5°	970.3	987.6	1020.7	1058.8	1070.5
45°	915.7	932.1	968.5	1005.4	1019.2
47.5°	858.8	875.8	915.4	954.7	967.0
50°	800.5	820.7	860.3	901.6	912.8
52.5°	742.4	762.7	804.6	845.9	858.5
55°	688.5	707.8	748.6	791.7	807.2
57.5°	629.8	650.4	695.2	736.9	753.6
60°	575.6	590.5	638.0	681.1	697.3
62.5°	519.6	535.7	582.0	626.3	645.4
65°	458.6	478.5	528.1	572.4	590.8
67.5°	402.9	421.9	473.0	522.8	537.8
70°	345.1	367.1	419.9	470.9	492.0
72.5°	290.0	312.9	370.9	421.6	443.1
75°	231.6	261.3	321.1	374.4	396.4
77.5°	183.6	212.9	274.2	329.9	351.0
80°	130.2	166.3	232.5	288.8	307.6
82.5°	86.8	123.4	192.9	247.8	268.0
85°	46.3	89.4	156.6	213.2	228.7
87.5°	20.2	62.5	127.0	177.4	195.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)