

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: P685650

Luminaire Tested: **4CZL-7-UNV-FUL-L950-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685650
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-7-UNV-FUL-L950-CD-U
Description: METALUX CRUZE LINEAR 4FT FROSTED LENS MODEL WITH UPLIGHT @90 CRI and 5000K
Light Source: (392) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

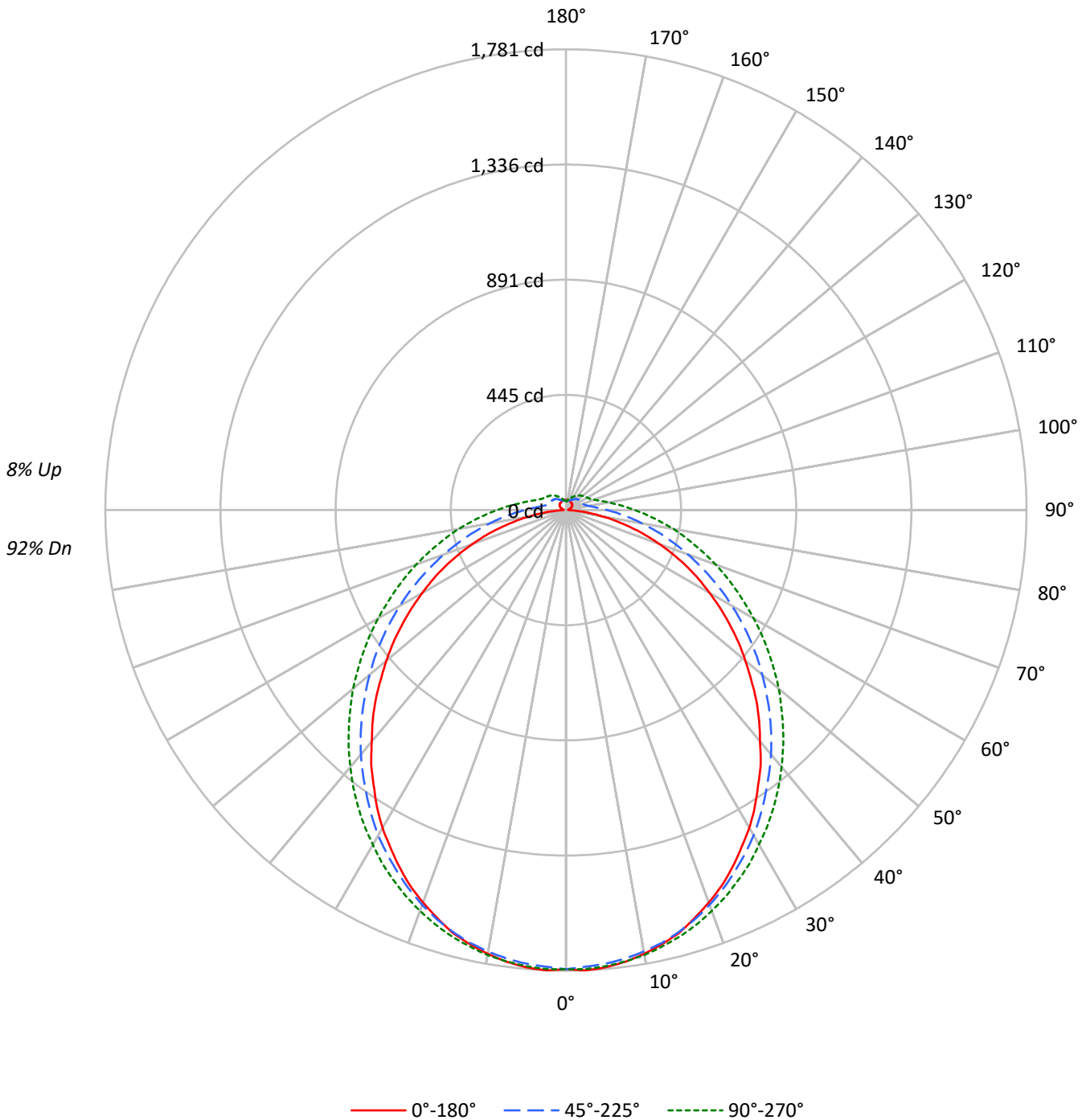
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5539.1 lumens
Efficiency: N/A
Efficacy: 125.9 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: 0.17')
CIE Type: Direct

Input Watts (W): 44
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	117	117	117	117	113	113	113	113	107	107	107	100	100	100	95	95	95	95	95	95	92
1	106	101	96	92	102	98	93	90	92	88	85	87	84	81	82	79	77	77	77	77	75
2	96	87	80	74	93	85	78	73	80	74	70	75	71	67	71	68	64	64	64	64	62
3	87	77	68	61	84	74	67	60	70	64	58	66	61	56	63	58	54	54	54	54	52
4	80	68	59	52	77	66	58	51	62	55	50	59	53	48	56	51	47	47	47	47	44
5	74	61	51	45	71	59	50	44	56	49	43	53	47	42	50	45	41	41	41	41	38
6	68	54	45	39	65	53	45	38	50	43	38	48	42	37	46	40	36	36	36	36	33
7	63	49	41	34	61	48	40	34	46	39	33	44	37	32	42	36	32	32	32	32	30
8	59	45	37	31	57	44	36	30	42	35	30	40	34	29	38	33	28	28	28	28	26
9	55	41	33	28	53	40	33	27	39	32	27	37	31	26	35	30	26	26	26	26	24
10	51	38	30	25	50	37	30	25	36	29	24	34	28	24	33	27	23	23	23	23	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5734	5734	5734
5°	5731	5623	5639
10°	5671	5517	5534
15°	5595	5397	5415
20°	5467	5255	5284
25°	5325	5092	5143
30°	5166	4928	4990
35°	4965	4733	4843
40°	4755	4548	4682
45°	4564	4345	4517
50°	4335	4137	4359
55°	4111	3922	4185
60°	3861	3694	4022
65°	3611	3458	3869
70°	3255	3228	3753
75°	2814	3011	3650
80°	2190	2838	3676
85°	1277	2756	3785



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.0	3.0
10°-20°	477.9	8.6
20°-30°	713.6	12.9
30°-40°	843.5	15.2
40°-50°	859.6	15.5
50°-60°	775.1	14.0
60°-70°	613.3	11.1
70°-80°	414.5	7.5
80°-90°	231.8	4.2
90°-100°	126.1	2.3
100°-110°	82.7	1.5
110°-120°	65.6	1.2
120°-130°	55.8	1.0
130°-140°	44.6	0.8
140°-150°	32.0	0.6
150°-160°	20.6	0.4
160°-170°	11.1	0.2
170°-180°	3.5	0.1
0°-30°	1359.4	24.5
0°-40°	2202.9	39.8
0°-60°	3837.5	69.3
0°-90°	5097.0	92.0
90°-120°	274.5	5.0
90°-150°	406.9	7.3
90°-180°	442.0	8.0
0°-180°	5539.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1776	1776	1776	1776	1776	
5°	1774	1772	1761	1771	1770	168
15°	1692	1690	1688	1703	1706	476
25°	1524	1531	1543	1572	1578	701
35°	1296	1314	1344	1387	1401	811
45°	1041	1062	1114	1166	1187	802
55°	774	802	867	932	956	692
65°	515	541	618	695	724	508
75°	261	297	395	483	511	277
85°	51	114	220	305	336	62
90°	8	63	158	236	265	6
95°	8	41	116	186	212	7
105°	15	37	76	120	137	15
115°	23	40	68	93	103	23
125°	30	41	64	83	90	27
135°	34	40	60	74	79	26
145°	35	38	50	63	67	22
155°	37	38	42	52	54	17
165°	39	38	37	39	42	11
175°	39	38	37	32	33	4
180°	36	36	36	36	36	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1775.6	1775.6	1775.6	1775.6	1775.6
2.5°	1781.3	1778.4	1766.7	1775.9	1775.6
5°	1774.5	1771.7	1760.6	1770.6	1769.9
7.5°	1761.3	1759.6	1749.2	1760.3	1759.9
10°	1742.1	1742.1	1733.2	1746.0	1747.1
12.5°	1719.0	1718.6	1714.0	1727.2	1727.2
15°	1692.3	1690.1	1688.4	1702.9	1706.5
17.5°	1654.2	1655.6	1658.8	1676.2	1679.8
20°	1615.0	1618.2	1624.3	1644.9	1649.5
22.5°	1573.0	1576.6	1586.2	1608.6	1616.1
25°	1523.5	1530.6	1543.1	1571.9	1578.0
27.5°	1470.1	1482.6	1498.6	1529.2	1539.5
30°	1418.8	1428.8	1451.9	1484.0	1492.9
32.5°	1359.7	1371.8	1398.9	1437.3	1449.4
35°	1296.3	1314.2	1344.4	1387.1	1400.7
37.5°	1237.2	1251.5	1288.9	1334.4	1350.5
40°	1167.5	1190.6	1233.7	1278.5	1297.1
42.5°	1106.2	1126.2	1174.6	1224.1	1243.3
45°	1041.1	1061.7	1114.1	1166.0	1187.0
47.5°	971.3	995.8	1051.7	1109.8	1129.4
50°	905.8	931.4	991.2	1050.0	1074.5
52.5°	841.3	868.0	930.0	991.9	1014.7
55°	773.7	802.5	866.6	932.1	955.6
57.5°	707.5	736.3	804.7	872.3	897.6
60°	640.9	667.9	741.3	810.7	838.5
62.5°	578.6	604.9	680.4	755.2	779.4
65°	514.8	540.8	618.4	694.6	723.5
67.5°	449.0	480.3	558.3	638.0	668.6
70°	384.2	416.2	502.4	585.3	616.0
72.5°	322.9	359.2	446.1	530.9	562.2
75°	260.6	296.6	395.2	482.8	510.9
77.5°	201.9	243.9	345.4	433.7	466.8
80°	145.6	193.3	300.5	387.0	421.9
82.5°	95.8	150.2	258.8	344.6	376.0
85°	50.9	114.3	219.7	305.1	335.7
87.5°	19.9	84.7	186.9	269.2	299.8
90°	7.8	63.0	158.1	236.1	265.3
92.5°	7.8	49.1	134.6	209.4	236.8
95°	8.5	41.3	116.1	185.5	211.5
97.5°	9.3	37.4	101.5	164.5	187.6
100°	10.7	36.0	90.4	147.4	168.4
102.5°	12.5	36.0	81.5	131.7	151.7
105°	14.6	36.7	75.8	119.6	137.4
107.5°	16.4	37.4	71.9	109.7	125.7
110°	18.5	38.5	69.8	102.2	116.1

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	20.7	39.2	68.4	96.8	108.9
115°	22.8	39.5	67.6	92.6	102.9
117.5°	24.9	40.2	66.9	89.7	98.6
120°	27.1	40.6	66.2	87.6	95.4
122.5°	28.8	40.6	65.5	85.5	92.6
125°	30.3	40.9	64.4	83.3	90.1
127.5°	31.3	41.3	63.7	81.2	87.2
130°	32.4	40.9	62.7	79.0	84.7
132.5°	33.1	40.6	61.2	76.9	82.2
135°	33.5	40.2	59.8	74.4	79.4
137.5°	33.8	39.9	57.7	71.9	76.5
140°	33.8	39.5	55.2	69.1	73.3
142.5°	34.2	38.8	52.7	66.2	70.1
145°	34.9	38.5	50.2	63.4	66.9
147.5°	35.6	37.7	48.1	60.2	63.4
150°	36.3	37.7	45.9	57.3	60.2
152.5°	36.7	37.7	43.8	54.8	57.0
155°	37.4	37.7	41.7	52.3	53.8
157.5°	37.7	37.7	40.2	49.1	50.6
160°	38.1	38.1	38.8	45.6	47.7
162.5°	38.8	38.1	38.1	42.0	44.9
165°	38.8	38.1	37.4	39.2	42.4
167.5°	39.2	38.5	37.0	37.0	40.2
170°	39.2	38.5	37.0	35.2	37.0
172.5°	39.2	38.5	37.0	33.8	34.5
175°	39.2	38.5	37.0	32.4	32.8
177.5°	39.2	38.5	36.7	31.3	32.8
180°	36.3	36.3	36.3	36.3	36.3

(END OF REPORT)