

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: P685581

Luminaire Tested: **4CZL-9-UNV-FL-L940-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685581
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-9-UNV-FL-L940-CD-U
Description: METALUX CRUZE LINEAR 4FT FROSTED LENS MODEL @90 CRI and 4000K
Light Source: (588) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

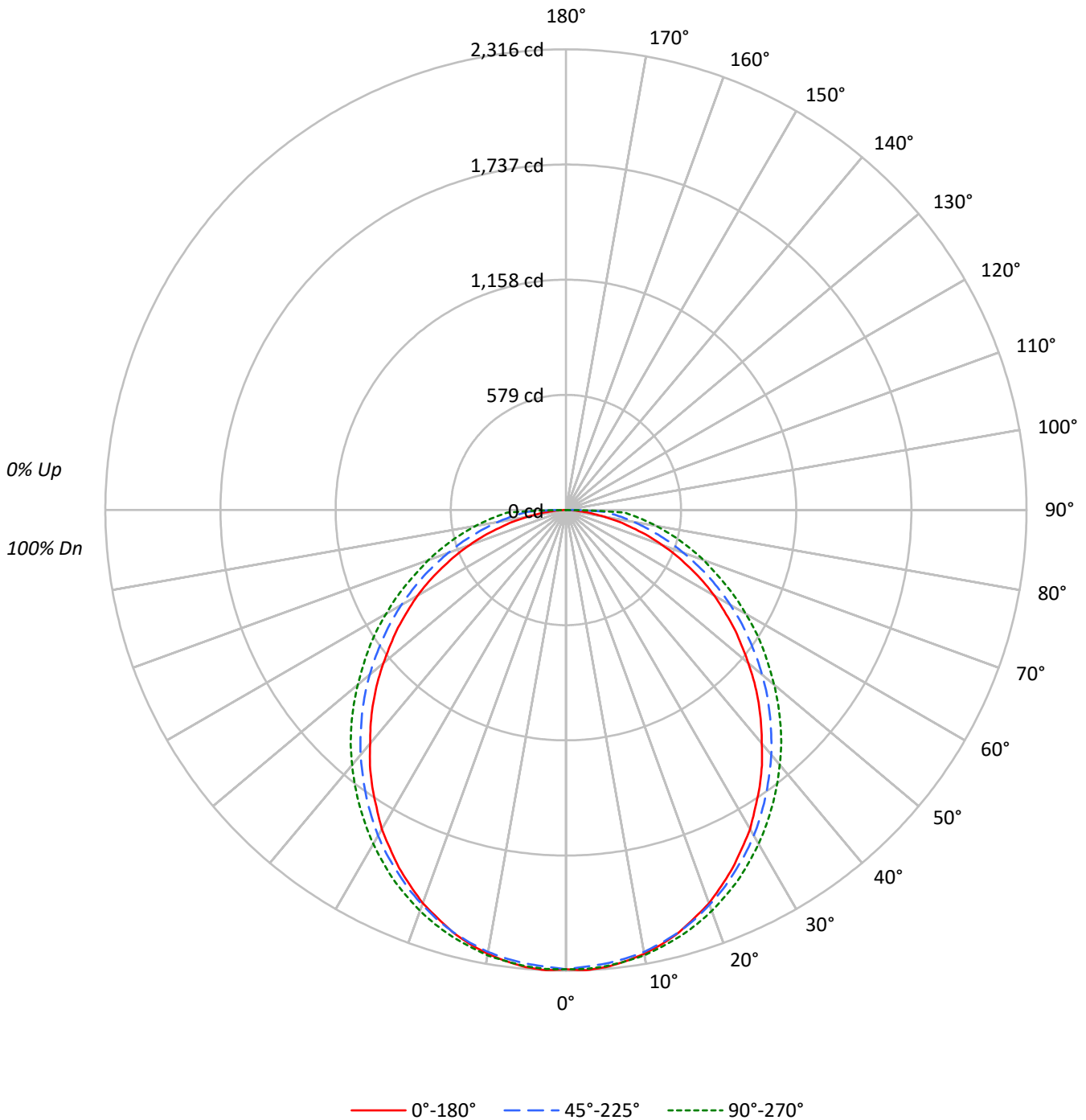
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6503.7 lumens
Efficiency: N/A
Efficacy: 120.4 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): 54
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°	7456	7456	7456
5°	7464	7365	7398
10°	7401	7287	7324
15°	7305	7177	7225
20°	7176	7039	7112
25°	7005	6877	6983
30°	6822	6715	6832
35°	6597	6518	6670
40°	6346	6320	6505
45°	6131	6099	6333
50°	5873	5871	6133
55°	5634	5622	5952
60°	5370	5373	5745
65°	5020	5104	5564
70°	4613	4806	5454
75°	4014	4547	5391
80°	3241	4359	5463
85°	2074	4394	5918



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	218.4	3.4
10°-20°	621.5	9.6
20°-30°	928.2	14.3
30°-40°	1097.8	16.9
40°-50°	1118.5	17.2
50°-60°	1002.3	15.4
60°-70°	780.7	12.0
70°-80°	505.4	7.8
80°-90°	231.0	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°	1768.1	27.2
0°-40°	2865.8	44.1
0°-60°	4986.7	76.7
0°-90°	6503.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6503.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2309	2309	2309	2309	2309	
5°	2307	2303	2289	2303	2302	219
15°	2197	2197	2196	2217	2219	619
25°	1985	1992	2007	2042	2051	913
35°	1698	1714	1752	1800	1810	1061
45°	1371	1395	1450	1505	1526	1056
55°	1030	1059	1120	1185	1208	920
65°	686	716	790	857	884	682
75°	347	391	481	560	593	372
85°	69	134	234	319	342	89
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2308.9	2308.9	2308.9	2308.9	2308.9
2.5°	2315.5	2311.6	2297.5	2309.8	2309.4
5°	2306.7	2302.8	2289.2	2302.8	2302.3
7.5°	2288.7	2287.4	2275.1	2290.1	2288.7
10°	2265.5	2263.7	2255.8	2270.7	2272.9
12.5°	2234.8	2233.9	2227.7	2245.3	2246.6
15°	2197.4	2197.4	2196.1	2216.8	2219.0
17.5°	2149.6	2155.8	2157.1	2179.5	2184.3
20°	2104.0	2105.7	2111.9	2139.1	2144.8
22.5°	2043.8	2051.3	2063.6	2093.4	2098.3
25°	1985.0	1992.1	2007.0	2042.5	2051.3
27.5°	1916.6	1930.2	1950.8	1986.3	1995.1
30°	1851.6	1863.0	1889.8	1929.3	1938.1
32.5°	1772.2	1791.5	1822.2	1863.9	1875.8
35°	1698.0	1714.2	1752.4	1799.8	1810.4
37.5°	1618.6	1637.9	1678.3	1728.7	1743.2
40°	1531.7	1559.8	1606.7	1657.2	1672.6
42.5°	1452.2	1478.1	1527.7	1584.8	1602.3
45°	1370.6	1395.2	1449.6	1504.9	1525.5
47.5°	1285.5	1310.9	1370.2	1429.0	1447.4
50°	1198.1	1228.4	1287.7	1349.5	1366.2
52.5°	1111.2	1141.5	1204.3	1266.2	1285.0
55°	1030.5	1059.4	1120.4	1185.0	1208.2
57.5°	942.7	973.4	1040.6	1102.9	1127.9
60°	861.5	883.9	955.0	1019.5	1043.6
62.5°	777.7	801.8	871.2	937.4	966.0
65°	686.4	716.2	790.4	856.7	884.3
67.5°	603.0	631.5	707.9	782.5	804.9
70°	516.6	549.5	628.5	704.8	736.4
72.5°	434.0	468.3	555.2	631.1	663.1
75°	346.7	391.0	480.6	560.4	593.4
77.5°	274.7	318.6	410.3	493.7	525.3
80°	194.9	248.8	348.0	432.3	460.4
82.5°	129.9	184.8	288.8	370.8	401.1
85°	69.3	133.9	234.4	319.1	342.3
87.5°	30.3	93.5	190.0	265.5	293.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)