

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: P685497

Luminaire Tested: **8CZL-24-UNV-W-L840-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685497
Test Lab: INNOVATION CENTER(G2)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 8CZL-24-UNV-W-L840-CD-U
Description: METALUX CRUZE LINEAR 8FT WIDE LENS MODEL @80 CRI and 4000K
Light Source: (1176) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

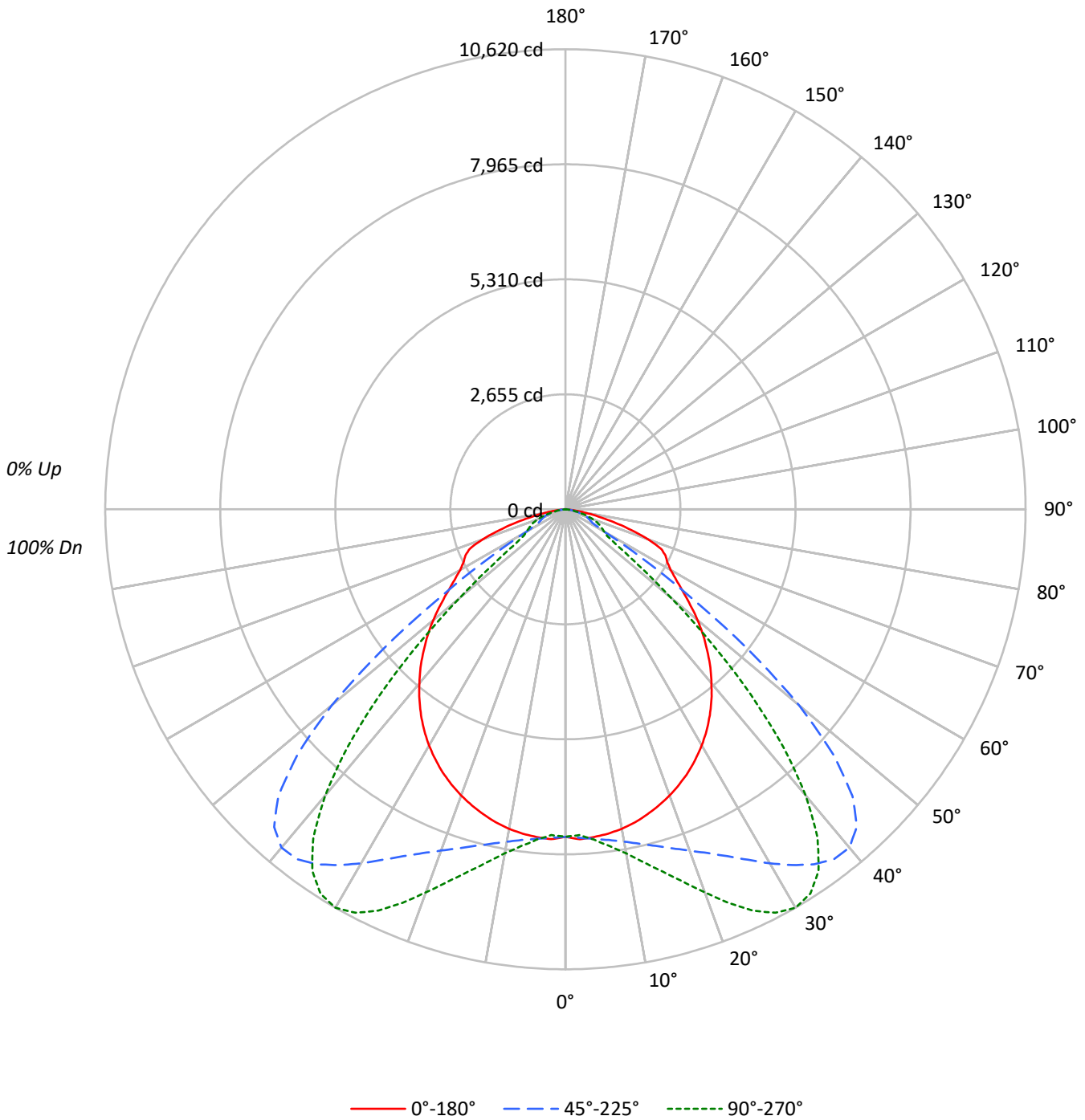
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24173.9 lumens
Efficiency: N/A
Efficacy: 157.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.69 / 1.65
Luminous Opening: Rectangular (W 0.83' x L: 8' x H: 0')
CIE Type: Direct

Input Watts (W): 154
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				
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	111	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	89	89	89	87
2	102	94	88	83	99	93	87	82	89	85	81	86	82	79	83	80	77	77	77	77	75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	67	67	67	65
4	86	75	67	61	84	73	66	60	71	65	59	69	63	59	67	62	58	58	58	58	56
5	79	67	59	52	77	66	58	52	64	57	52	62	56	51	60	55	51	51	51	51	49
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	45	45	45	43
7	68	55	46	40	66	54	46	40	52	45	40	51	45	40	50	44	39	39	39	39	38
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35	35	35	35	33
9	59	46	38	32	57	45	37	32	44	37	32	43	36	32	42	36	32	32	32	32	30
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	29	29	29	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12204	12204	12204
5°	12310	12374	12412
10°	12280	12771	13219
15°	12191	13447	14471
20°	12084	14405	16166
25°	11939	15741	18208
30°	11735	17590	19800
35°	11448	19716	20073
40°	11051	21481	18185
45°	10574	21400	13802
50°	10001	17686	7955
55°	9321	9728	4091
60°	9047	3395	3335
65°	9749	2470	3344
70°	9628	2531	3226
75°	7279	2213	2590
80°	4399	1808	1833
85°	2192	924	389



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	731.5	3.0
10°-20°	2274.7	9.4
20°-30°	3995.9	16.5
30°-40°	5551.3	23.0
40°-50°	5629.7	23.3
50°-60°	3612.8	14.9
60°-70°	1689.8	7.0
70°-80°	585.9	2.4
80°-90°	102.2	0.4
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°	7002.2	29.0
0°-40°	12553.5	51.9
0°-60°	21796.0	90.2
0°-90°	24173.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	24173.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7558	7558	7558	7558	7558	
5°	7595	7541	7635	7659	7658	722
15°	7293	7467	8045	8476	8657	2058
25°	6702	7388	8836	9870	10221	3085
35°	5808	7451	10003	10347	10184	3627
45°	4631	7976	9372	6990	6045	3570
55°	3311	8238	3456	1664	1453	2989
65°	2552	2632	646	809	875	2483
75°	1167	403	355	409	415	1263
85°	118	106	50	28	21	179
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	7558.5	7558.5	7558.5	7558.5	7558.5	7558.5	7558.5	7558.5	7558.5	7558.5	7558.5
2.5°	7624.2	7600.5	7561.1	7545.4	7553.2	7592.7	7605.8	7576.9	7569.0	7548.0	7527.0
5°	7595.3	7574.3	7545.4	7540.1	7569.0	7634.7	7663.6	7655.7	7668.9	7671.5	7658.4
7.5°	7553.2	7534.8	7511.2	7534.8	7595.3	7700.4	7766.1	7787.1	7834.5	7845.0	7842.3
10°	7490.2	7474.4	7466.5	7527.0	7632.1	7789.8	7905.4	7963.2	8031.6	8055.2	8063.1
12.5°	7406.1	7390.3	7411.3	7516.4	7682.0	7908.0	8078.9	8181.4	8278.6	8328.5	8344.3
15°	7293.1	7287.8	7340.4	7508.6	7745.1	8044.7	8281.2	8441.5	8580.8	8636.0	8657.1
17.5°	7169.5	7172.2	7266.8	7505.9	7821.3	8205.0	8507.3	8735.9	8906.7	8985.6	9009.2
20°	7032.9	7040.8	7182.7	7503.3	7915.9	8383.7	8756.9	9056.5	9269.4	9374.5	9408.7
22.5°	6872.6	6888.3	7090.7	7505.9	8015.8	8588.7	9051.3	9408.7	9663.6	9789.8	9831.8
25°	6701.7	6725.4	6996.1	7519.1	8141.9	8835.8	9387.7	9805.5	10063.1	10173.5	10220.8
27.5°	6504.6	6544.0	6893.6	7537.5	8291.7	9122.2	9732.0	10134.1	10373.2	10457.3	10499.4
30°	6294.4	6339.0	6793.7	7574.3	8486.2	9435.0	10050.0	10389.0	10549.3	10596.6	10620.3
32.5°	6063.1	6136.7	6693.8	7634.7	8714.9	9737.2	10283.9	10486.2	10525.7	10509.9	10517.8
35°	5808.2	5887.0	6599.2	7734.6	8975.1	10002.7	10375.9	10375.9	10260.2	10189.3	10184.0
37.5°	5537.5	5637.3	6504.6	7850.2	9277.3	10178.7	10276.0	10015.8	9734.6	9582.2	9558.5
40°	5243.1	5377.2	6438.9	8007.9	9550.6	10191.9	9918.6	9382.4	8904.1	8657.1	8628.1
42.5°	4951.4	5117.0	6410.0	8212.9	9755.6	9950.1	9245.8	8417.9	7768.7	7477.0	7445.5
45°	4630.8	4848.9	6420.5	8494.1	9810.8	9371.9	8244.4	7172.2	6444.2	6076.2	6044.7
47.5°	4312.8	4583.5	6446.8	8812.1	9569.0	8391.6	6912.0	5671.5	4948.8	4562.4	4557.2
50°	3981.6	4333.8	6509.9	9072.3	8914.6	7040.8	5274.7	4063.1	3484.9	3190.5	3166.9
52.5°	3637.3	4115.6	6646.5	9119.6	7750.4	5306.2	3579.5	2712.2	2336.4	2149.8	2113.0
55°	3311.4	3931.7	6869.9	8693.8	6076.2	3456.0	2254.9	1710.9	1521.7	1445.5	1453.4
57.5°	3030.2	3795.0	7130.1	7582.2	3944.8	2034.2	1306.2	1138.0	1132.7	1140.6	1143.2
60°	2801.6	3710.9	7245.8	5687.3	2165.6	1051.3	912.0	948.8	998.7	1027.6	1032.9
62.5°	2651.8	3666.2	6893.6	3295.7	961.9	733.2	796.3	864.7	922.5	948.8	951.4
65°	2551.9	3548.0	5640.0	1629.4	588.7	646.5	725.4	796.3	848.9	869.9	875.2
67.5°	2396.9	3214.2	3866.0	675.4	517.7	583.4	659.7	728.0	772.7	788.4	791.1
70°	2039.4	2691.2	2247.0	449.4	467.8	536.1	596.6	649.1	678.1	685.9	683.3
72.5°	1592.6	2131.4	1135.4	407.4	433.6	470.4	504.6	533.5	549.3	557.2	557.2
75°	1166.9	1558.5	533.5	360.1	323.3	354.8	389.0	407.4	412.6	415.2	415.2
77.5°	783.2	1074.9	318.0	278.6	249.7	276.0	289.1	281.2	276.0	281.2	281.2
80°	473.1	662.3	278.6	202.4	191.9	194.5	184.0	184.0	194.5	199.7	197.1
82.5°	254.9	375.8	244.4	147.2	128.8	118.3	115.6	110.4	105.1	102.5	102.5
85°	118.3	191.9	157.7	89.4	68.3	49.9	39.4	28.9	26.3	21.0	21.0
87.5°	47.3	73.6	47.3	28.9	15.8	10.5	7.9	5.3	2.6	2.6	2.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)