

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: P685437

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

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685437
Test Lab: INNOVATION CENTER(G2)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 8CZL-24-UNV-M-L840-CD-U
Description: METALUX CRUZE LINEAR 8FT MEDIUM LENS MODEL @80 CRI and 4000K
Light Source: (1176) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

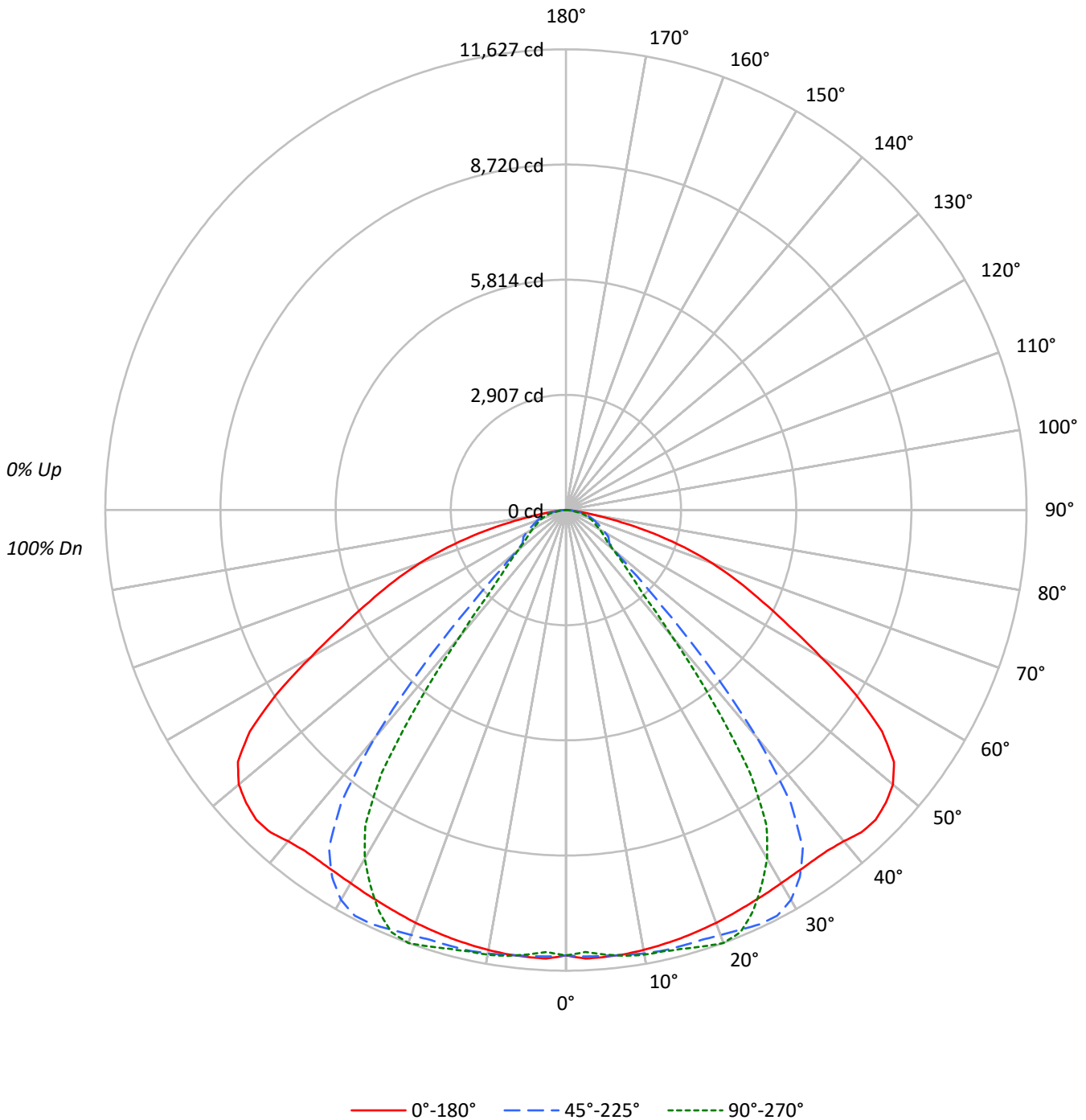
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24285.9 lumens
Efficiency: N/A
Efficacy: 157.7 lumens/watt
Spacing Criteria (0/90/45): 1.48 / 1.28 / 1.22
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	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	93	92	90	88
2	103	96	90	86	100	94	89	85	91	87	83	88	84	81	85	82	79	85	82	79	77
3	95	86	80	74	93	85	79	73	82	77	72	79	75	71	77	73	70	77	73	70	68
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	70	66	62	60
5	82	71	63	57	80	70	63	57	68	61	56	66	60	56	64	59	55	64	59	55	53
6	76	65	57	51	75	64	56	51	62	55	51	61	55	50	59	54	50	59	54	50	48
7	71	59	51	46	70	59	51	46	57	50	46	56	50	45	54	49	45	54	49	45	43
8	67	55	47	42	65	54	47	41	53	46	41	51	45	41	50	45	41	50	45	41	39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	47	41	37	36
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	44	38	34	33

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18150	18150	18150
5°	18353	18301	18249
10°	18487	18630	18683
15°	18705	19026	19159
20°	19049	19607	19978
25°	19538	20562	19903
30°	20273	21181	18933
35°	21338	20546	15988
40°	22997	15846	8745
45°	25248	7790	5226
50°	27073	4071	3897
55°	27418	3716	3364
60°	24045	3704	3171
65°	20924	3558	3070
70°	18568	3606	3091
75°	14244	3702	3138
80°	7250	3761	2598
85°	2860	2119	739



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1077.1	4.4
10°-20°	3210.2	13.2
20°-30°	5180.8	21.3
30°-40°	6067.6	25.0
40°-50°	4130.6	17.0
50°-60°	2391.7	9.8
60°-70°	1367.4	5.6
70°-80°	703.8	2.9
80°-90°	156.7	0.6
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°	9468.1	39.0
0°-40°	15535.7	64.0
0°-60°	22058.0	90.8
0°-90°	24285.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	24285.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	11241	11241	11241	11241	11241	
5°	11324	11212	11292	11278	11260	1079
15°	11190	11174	11382	11411	11462	3168
25°	10967	11121	11542	11364	11172	5076
35°	10826	11361	10424	8791	8112	6816
45°	11058	8227	3412	2298	2289	8495
55°	9740	2824	1320	1229	1195	8487
65°	5477	1007	931	822	804	5491
75°	2283	622	594	518	503	2427
85°	154	188	114	53	40	261
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°	11241.1	11241.1	11241.1	11241.1	11241.1	11241.1	11241.1	11241.1	11241.1	11241.1	11241.1
2.5°	11331.6	11299.6	11235.8	11209.2	11209.2	11278.4	11289.0	11246.4	11238.4	11201.2	11166.6
5°	11323.6	11291.7	11230.5	11206.5	11214.5	11291.7	11310.3	11275.7	11286.3	11275.7	11259.7
7.5°	11307.6	11273.0	11217.1	11201.2	11225.1	11323.6	11355.5	11336.9	11360.9	11355.5	11350.2
10°	11275.7	11249.1	11195.9	11193.2	11241.1	11363.5	11403.4	11379.5	11387.5	11384.8	11395.5
12.5°	11233.1	11209.2	11163.9	11187.9	11257.1	11387.5	11414.1	11376.8	11387.5	11390.1	11408.8
15°	11190.5	11161.3	11132.0	11187.9	11259.7	11382.1	11408.8	11403.4	11435.4	11438.0	11462.0
17.5°	11137.3	11118.7	11110.7	11185.2	11241.1	11376.8	11438.0	11470.0	11512.5	11523.2	11547.1
20°	11086.7	11070.8	11089.4	11171.9	11233.1	11411.4	11496.6	11544.5	11589.7	11603.0	11627.0
22.5°	11025.5	11014.9	11065.5	11153.3	11246.4	11464.6	11560.4	11565.8	11547.1	11512.5	11528.5
25°	10967.0	10967.0	11041.5	11148.0	11286.3	11541.8	11549.8	11398.1	11262.4	11171.9	11171.9
27.5°	10919.1	10929.7	11022.9	11171.9	11363.5	11547.1	11326.3	11025.5	10825.9	10695.5	10687.6
30°	10873.8	10892.5	11022.9	11238.4	11419.4	11360.9	10932.4	10567.8	10291.0	10166.0	10155.3
32.5°	10841.9	10871.2	11070.8	11339.6	11352.9	10985.6	10426.8	9966.4	9639.0	9452.7	9420.8
35°	10825.9	10860.5	11161.3	11427.4	11084.1	10424.1	9631.0	8920.5	8401.6	8162.0	8111.5
37.5°	10836.6	10897.8	11286.3	11352.9	10410.8	9319.7	8180.7	7161.4	6448.2	6222.0	6065.0
40°	10911.1	11014.9	11384.8	10746.1	8997.7	7518.0	6009.1	4912.7	4420.3	4258.0	4148.9
42.5°	11036.2	11140.0	11126.7	9356.9	7028.3	5341.1	3872.1	3214.8	2975.3	2948.7	2898.1
45°	11057.5	11097.4	10291.0	7539.3	5112.3	3411.7	2493.6	2299.3	2294.0	2312.6	2288.7
47.5°	10945.7	10868.5	9085.5	5766.9	3520.8	2206.2	1876.2	1908.1	1924.1	1910.8	1892.1
50°	10778.0	10493.3	7733.6	4239.4	2347.2	1620.7	1636.7	1665.9	1610.1	1572.8	1551.5
52.5°	10437.4	9883.9	6232.6	3004.5	1623.4	1383.8	1511.6	1426.4	1346.6	1325.3	1322.6
55°	9740.2	8979.0	4795.6	2166.3	1240.1	1320.0	1343.9	1234.8	1210.9	1200.2	1194.9
57.5°	8678.3	7853.3	3606.0	1564.8	1088.4	1274.7	1168.3	1125.7	1101.8	1093.8	1085.8
60°	7446.2	6594.6	2687.9	1149.7	1056.5	1147.0	1059.2	1019.3	992.6	982.0	982.0
62.5°	6355.1	5458.2	1988.0	934.1	1048.5	1035.2	955.4	912.8	896.8	891.5	886.2
65°	5476.8	4391.1	1434.4	864.9	979.3	931.4	854.3	825.0	814.3	803.7	803.7
67.5°	4694.4	3438.3	1056.5	848.9	899.5	838.3	779.7	755.8	742.5	739.8	737.2
70°	3933.3	2533.5	803.7	830.3	854.3	763.8	707.9	678.6	662.7	654.7	654.7
72.5°	3132.3	1737.8	641.4	763.8	782.4	676.0	620.1	598.8	585.5	577.5	574.8
75°	2283.3	1091.1	564.2	641.4	673.3	593.5	537.6	518.9	513.6	505.6	503.0
77.5°	1453.0	652.0	481.7	524.3	550.9	500.3	457.7	433.8	431.1	423.1	420.5
80°	779.7	417.8	385.9	412.5	428.5	404.5	353.9	306.0	292.7	282.1	279.4
82.5°	361.9	266.1	287.4	311.4	319.3	258.1	212.9	191.6	178.3	165.0	157.0
85°	154.4	143.7	178.3	191.6	157.0	114.4	74.5	55.9	45.2	42.6	39.9
87.5°	55.9	55.9	66.5	45.2	26.6	21.3	21.3	18.6	16.0	13.3	13.3
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)