

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: P685791

Luminaire Tested: **4CZL-9-UNV-M-LVR-L840-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685791
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-9-UNV-M-LVR-L840-CD-U
Description: METALUX CRUZE LINEAR 4FT LOUVER MODEL WITH MEDIUM LENS @80 CRI and 4000K
Light Source: (588) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

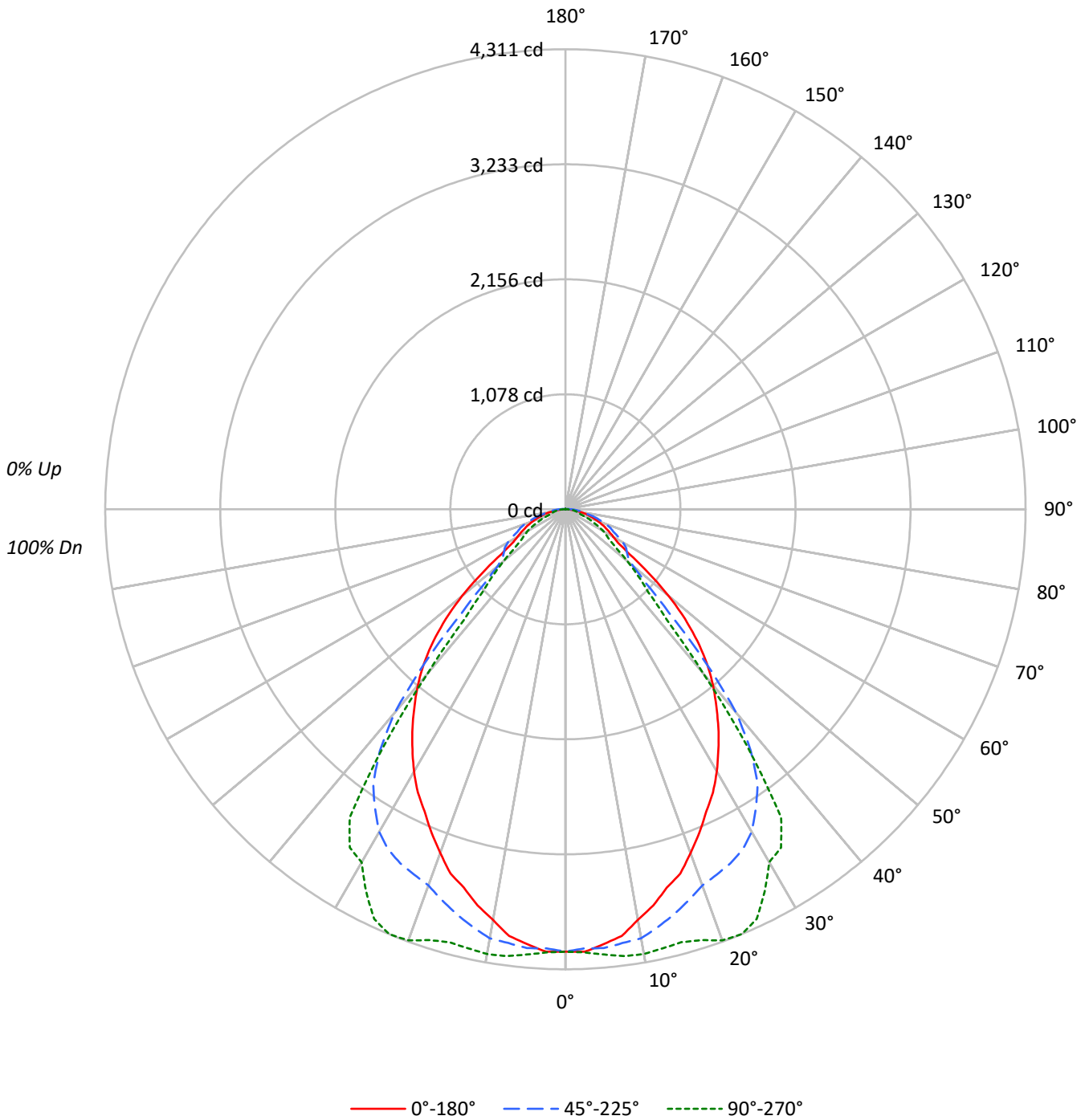
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7667.1 lumens
Efficiency: N/A
Efficacy: 142.0 lumens/watt
Spacing Criteria (0/90/45): 1.05 / 1.34 / 1.2
Luminous Opening: Rectangular (W 0.83' x L: 4' x H: 0')
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				
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	103	100	108	104	101	98	100	98	95	96	94	92	93	91	90	90	90	90	88
2	103	96	90	86	100	94	89	84	91	86	83	87	84	81	84	81	79	79	79	79	77
3	95	87	80	74	93	85	79	74	82	77	72	79	75	71	77	73	70	70	70	70	68
4	89	78	71	65	86	77	70	65	75	69	64	73	67	63	70	66	62	62	62	62	60
5	83	72	64	58	81	70	63	58	68	62	57	67	61	57	65	60	56	56	56	56	54
6	77	65	58	52	75	65	57	52	63	56	51	61	55	51	60	55	51	51	51	51	49
7	72	60	53	47	70	59	52	47	58	51	47	57	51	46	55	50	46	46	46	46	44
8	68	56	48	43	66	55	48	43	54	47	42	52	47	42	51	46	42	42	42	42	40
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	42	39	39	39	39	37
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	35	35	35	35	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13384	13384	13384
5°	13260	13379	13579
10°	12811	13387	13876
15°	12272	13137	14039
20°	11777	12887	14769
25°	11126	13040	15097
30°	10576	13012	14239
35°	9847	12374	13885
40°	9065	10489	8461
45°	7987	6252	5015
50°	6340	4152	3785
55°	4105	3949	2872
60°	3351	4014	2639
65°	3192	3783	2156
70°	3031	3796	1704
75°	2880	3553	1585
80°	2663	3357	1780
85°	2382	4105	2182



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	393.3	5.1
10°-20°	1115.6	14.6
20°-30°	1682.3	21.9
30°-40°	1858.9	24.2
40°-50°	1165.5	15.2
50°-60°	627.5	8.2
60°-70°	426.2	5.6
70°-80°	254.5	3.3
80°-90°	110.6	1.4
90°-100°	24.2	0.3
100°-110°	2.8	0.0
110°-120°	1.0	0.0
120°-130°	0.9	0.0
130°-140°	1.1	0.0
140°-150°	1.0	0.0
150°-160°	0.8	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	3191.2	41.6
0°-40°	5050.1	65.9
0°-60°	6843.1	89.3
0°-90°	7634.4	99.6
90°-120°	28.0	0.4
90°-150°	31.0	0.4
90°-180°	33.0	0.4
0°-180°	7667.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4145	4145	4145	4145	4145	
5°	4091	4098	4127	4176	4189	385
15°	3671	3799	3930	4120	4199	1036
25°	3123	3312	3660	4050	4237	1442
35°	2498	2791	3139	3377	3522	1559
45°	1749	1904	1369	1116	1098	1334
55°	729	763	702	607	510	708
65°	418	459	495	402	282	413
75°	231	257	285	234	127	243
85°	64	79	111	146	59	69
90°	2	24	56	94	17	4
95°	0	4	22	48	9	0
105°	0	1	2	4	2	1
115°	0	1	1	1	1	0
125°	0	1	1	1	1	0
135°	1	1	2	2	2	1
145°	1	2	2	2	2	1
155°	2	2	2	2	2	1
165°	2	2	2	2	2	0
175°	2	2	2	3	3	0
180°	3	3	3	3	3	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4144.7	4144.7	4144.7	4144.7	4144.7
2.5°	4150.1	4138.8	4117.7	4155.5	4156.1
5°	4090.7	4097.7	4127.4	4176.1	4189.0
7.5°	4032.8	4059.9	4099.9	4217.1	4223.1
10°	3906.9	3963.1	4082.6	4195.5	4231.7
12.5°	3802.1	3885.3	4008.5	4157.2	4213.4
15°	3670.7	3799.4	3929.6	4119.9	4199.3
17.5°	3578.9	3682.1	3841.5	4102.6	4232.8
20°	3427.0	3572.4	3750.2	4114.5	4297.7
22.5°	3279.5	3456.2	3704.3	4118.8	4311.2
25°	3122.7	3312.4	3659.9	4050.1	4237.1
27.5°	2993.0	3151.9	3594.0	3906.9	4042.0
30°	2836.3	3023.3	3489.7	3688.0	3818.8
32.5°	2667.7	2904.9	3320.5	3520.5	3758.3
35°	2498.0	2791.4	3138.9	3376.7	3522.1
37.5°	2320.7	2697.9	2853.6	2892.0	2792.5
40°	2150.5	2567.7	2488.2	2116.9	2007.2
42.5°	1964.5	2287.7	1940.8	1456.5	1407.3
45°	1748.9	1904.0	1369.0	1116.0	1098.2
47.5°	1519.2	1474.4	1020.9	932.8	922.6
50°	1262.0	1178.7	826.4	823.1	753.4
52.5°	983.6	936.1	741.0	713.9	603.1
55°	729.1	762.6	701.5	606.9	510.2
57.5°	583.7	661.5	673.9	530.2	456.1
60°	518.8	578.8	621.5	487.5	408.6
62.5°	465.3	512.9	556.7	452.4	352.4
65°	417.8	459.4	495.1	402.1	282.1
67.5°	367.5	410.7	454.5	345.3	240.0
70°	321.0	367.0	402.1	306.4	180.5
72.5°	272.9	320.5	336.2	256.2	144.3
75°	230.8	256.7	284.8	234.0	127.0
77.5°	186.5	208.6	220.0	214.6	111.9
80°	143.2	161.1	180.5	195.1	95.7
82.5°	104.8	117.8	144.3	171.9	76.7
85°	64.3	78.9	110.8	145.9	58.9
87.5°	28.6	47.0	81.6	120.5	37.8
90°	1.6	24.3	56.2	93.5	17.3
92.5°	0.5	10.8	36.8	69.2	11.9
95°	0.5	3.8	22.2	48.1	8.6
97.5°	0.5	1.6	12.4	30.8	5.4
100°	0.5	1.1	5.9	17.8	3.8
102.5°	0.5	1.1	2.7	8.6	2.7
105°	0.5	1.1	1.6	3.8	1.6
107.5°	0.5	1.1	1.1	1.6	1.1
110°	0.5	1.1	1.1	1.1	1.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.5	1.1	1.1	1.1	1.1
115°	0.5	1.1	1.1	1.1	1.1
117.5°	0.5	1.1	1.1	1.1	1.1
120°	0.5	1.1	1.1	1.1	1.1
122.5°	0.5	1.1	1.1	1.1	1.1
125°	0.5	1.1	1.1	1.1	1.1
127.5°	0.5	1.1	1.1	1.1	1.1
130°	0.5	1.1	1.1	1.1	1.1
132.5°	1.1	1.1	1.6	1.6	1.6
135°	1.1	1.1	1.6	1.6	1.6
137.5°	1.1	1.6	1.6	1.6	1.6
140°	1.1	1.6	1.6	1.6	1.6
142.5°	1.1	1.6	1.6	1.6	1.6
145°	1.1	1.6	1.6	1.6	2.2
147.5°	1.1	1.6	1.6	1.6	2.2
150°	1.1	1.6	1.6	1.6	1.6
152.5°	1.6	1.6	1.6	1.6	1.6
155°	1.6	1.6	1.6	1.6	1.6
157.5°	1.6	1.6	1.6	2.2	2.2
160°	1.6	2.2	2.2	2.2	2.2
162.5°	1.6	2.2	2.2	2.2	2.2
165°	1.6	2.2	2.2	2.2	2.2
167.5°	1.6	2.2	2.2	2.2	2.7
170°	2.2	2.2	2.2	2.7	2.7
172.5°	2.2	2.2	2.2	2.7	2.7
175°	2.2	2.2	2.2	2.7	2.7
177.5°	2.2	2.7	2.2	2.7	3.2
180°	2.7	2.7	2.7	2.7	2.7

(END OF REPORT)