

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: P473794

Luminaire Tested: **24CZ2-100VHE-UNV-L830-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P473794  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-100VHE-UNV-L830-CD1-U  
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9657.5 lumens  
Efficiency: N/A  
Efficacy: 135.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

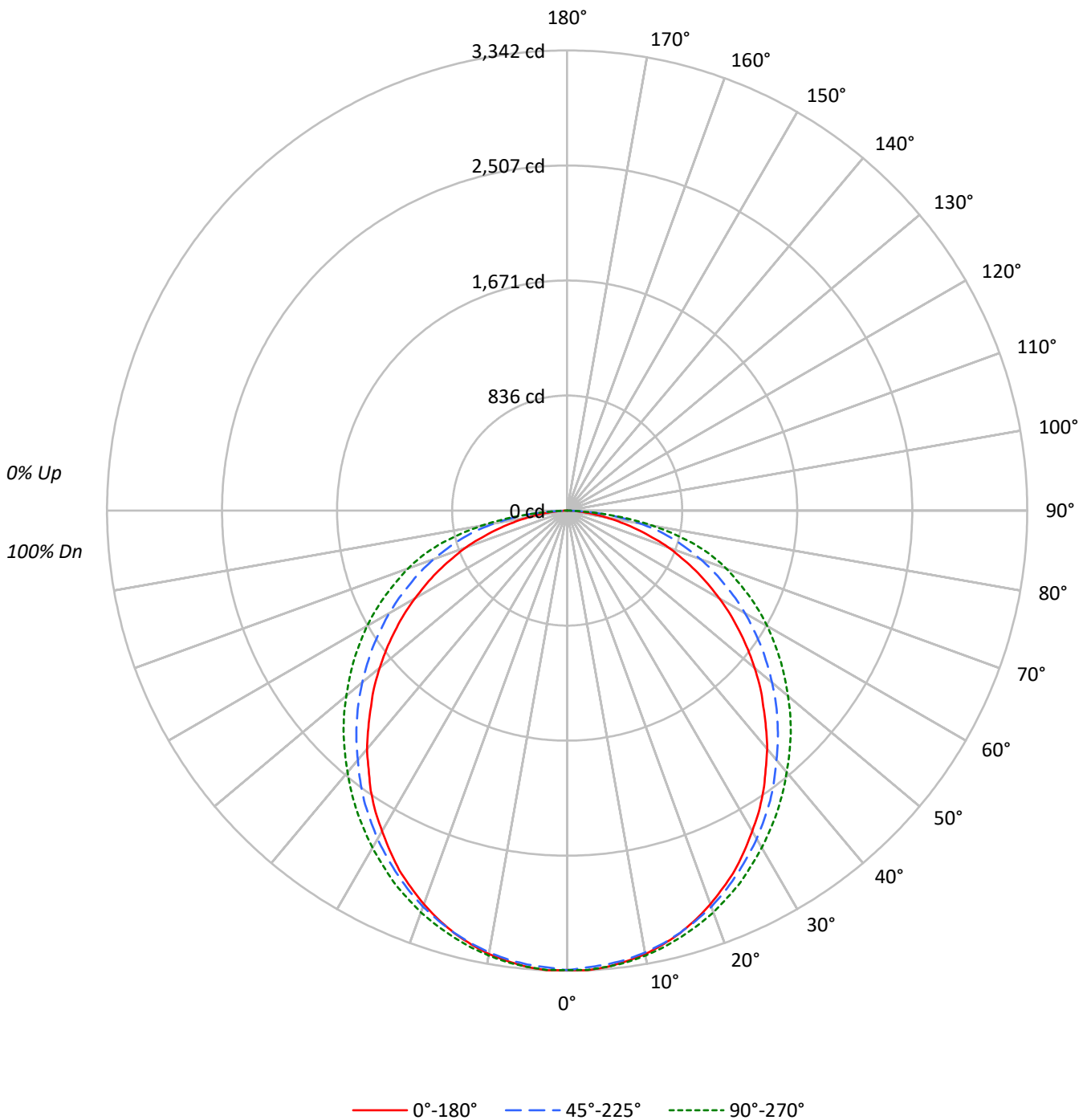
Input Watts (W): 71.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	88	81	75	84	78	74	81	76	72	78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57
4	82	69	60	53	79	68	59	53	65	58	52	63	57	51	61	55	51	48
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44	55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4490	4490	4490
5°	4493	4470	4493
10°	4468	4453	4483
15°	4423	4421	4464
20°	4356	4383	4446
25°	4280	4329	4424
30°	4176	4278	4392
35°	4082	4223	4375
40°	3971	4154	4357
45°	3836	4112	4370
50°	3720	4066	4383
55°	3583	4037	4432
60°	3434	4018	4513
65°	3273	4004	4629
70°	3081	4045	4843
75°	2709	4128	5037
80°	2261	4159	4860
85°	1613	3565	3612



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	315.5	3.3
10°-20°	898.6	9.3
20°-30°	1348.1	14.0
30°-40°	1609.5	16.7
40°-50°	1667.1	17.3
50°-60°	1534.8	15.9
60°-70°	1238.0	12.8
70°-80°	808.9	8.4
80°-90°	237.2	2.5
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°	2562.2	26.5
0°-40°	4171.6	43.2
0°-60°	7373.5	76.3
0°-90°	9657.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9657.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3337	3337	3337	3337	3337	
5°	3326	3323	3309	3328	3326	316
15°	3175	3175	3174	3205	3205	895
25°	2883	2890	2916	2969	2980	1326
35°	2485	2507	2571	2641	2663	1553
45°	2016	2066	2161	2258	2297	1558
55°	1527	1593	1721	1847	1889	1367
65°	1028	1098	1258	1401	1454	1017
75°	521	619	794	931	969	556
85°	104	181	231	245	234	130
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3337.3	3337.3	3337.3	3337.3	3337.3
2.5°	3342.0	3337.3	3320.1	3340.4	3338.9
5°	3326.4	3323.3	3309.2	3327.9	3326.4
7.5°	3301.4	3299.9	3288.9	3309.2	3309.2
10°	3270.2	3267.1	3259.3	3282.7	3281.1
12.5°	3226.5	3225.0	3220.3	3248.4	3246.8
15°	3175.0	3175.0	3173.5	3204.7	3204.7
17.5°	3112.6	3114.2	3120.4	3156.3	3157.9
20°	3042.4	3048.7	3061.1	3101.7	3104.8
22.5°	2962.8	2975.3	2992.5	3037.7	3042.4
25°	2883.3	2889.5	2916.0	2969.1	2980.0
27.5°	2786.5	2802.1	2836.5	2891.1	2902.0
30°	2688.2	2710.1	2753.8	2809.9	2827.1
32.5°	2591.5	2610.2	2661.7	2725.7	2746.0
35°	2485.4	2507.3	2571.2	2641.4	2663.3
37.5°	2368.4	2402.7	2469.8	2550.9	2574.4
40°	2260.7	2292.0	2365.3	2455.8	2480.7
42.5°	2137.5	2176.5	2265.4	2357.5	2388.7
45°	2015.8	2065.7	2160.9	2257.6	2296.6
47.5°	1901.9	1942.5	2054.8	2164.0	2198.3
50°	1777.1	1823.9	1942.5	2057.9	2093.8
52.5°	1653.8	1710.0	1830.1	1951.8	1990.8
55°	1527.4	1593.0	1720.9	1847.3	1889.4
57.5°	1405.8	1471.3	1603.9	1738.1	1781.8
60°	1276.3	1346.5	1493.1	1622.6	1677.2
62.5°	1151.4	1221.6	1376.1	1516.5	1568.0
65°	1028.2	1098.4	1257.5	1401.1	1454.1
67.5°	900.2	976.7	1146.8	1285.6	1337.1
70°	783.2	856.6	1028.2	1176.4	1231.0
72.5°	649.0	736.4	911.2	1057.8	1109.3
75°	521.1	619.4	794.1	931.4	968.9
77.5°	402.5	500.8	675.6	778.5	801.9
80°	291.8	391.6	536.7	608.5	627.2
82.5°	188.8	291.8	388.5	436.9	443.1
85°	104.5	181.0	230.9	245.0	234.0
87.5°	37.4	68.6	67.1	54.6	43.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)