

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: P473994

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

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P473994  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-100VHE-S-UNV-L830-CD1-U  
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

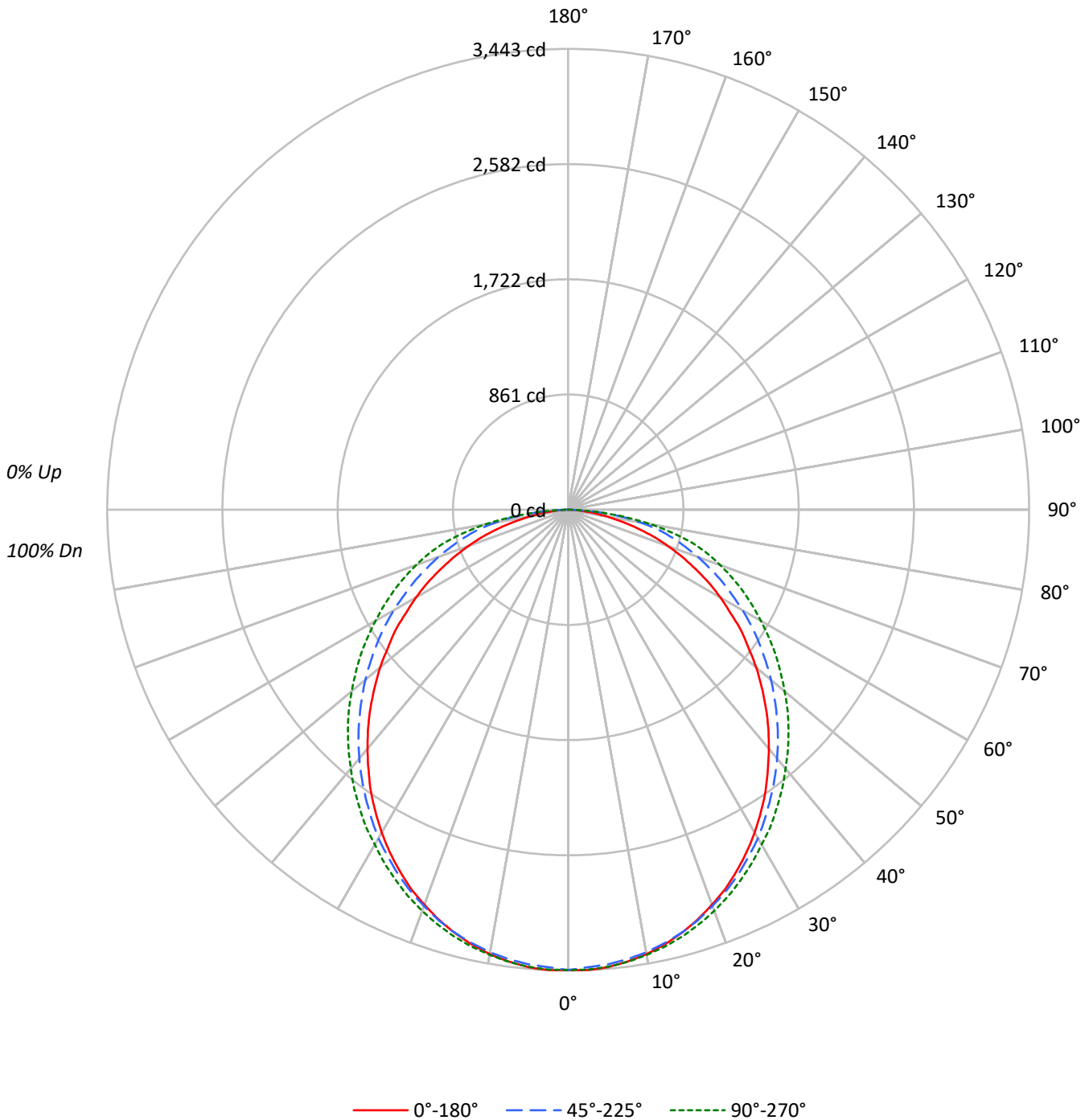
Lumens per Lamp: N/A  
Luminaire Lumens: 9851.0 lumens  
Efficiency: N/A  
Efficacy: 138.6 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 71.1  
Input Voltage (V): 120  
Input Current (Ain): 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	90	83	77	95	88	81	76	84	79	74		81	76	72		78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62		71	65	61		68	64	59	57
4	82	69	60	54	79	68	60	53	66	58	52		63	57	52		61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		45	39	34	32
8	60	46	38	32	58	45	37	31	44	37	31		43	36	31		42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26		37	30	25		36	30	25	24

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

	0°	45°	90°
0°	4626	4626	4626
5°	4633	4605	4629
10°	4607	4587	4614
15°	4560	4557	4596
20°	4497	4511	4566
25°	4422	4461	4531
30°	4329	4404	4487
35°	4221	4327	4462
40°	4095	4263	4436
45°	3972	4196	4427
50°	3837	4139	4417
55°	3701	4088	4441
60°	3531	4049	4472
65°	3343	4034	4580
70°	3119	4055	4742
75°	2776	4172	4996
80°	2269	4262	4877
85°	1599	3722	3796



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	325.1	3.3
10°-20°	925.8	9.4
20°-30°	1387.8	14.1
30°-40°	1652.9	16.8
40°-50°	1704.3	17.3
50°-60°	1555.2	15.8
60°-70°	1243.6	12.6
70°-80°	812.3	8.2
80°-90°	243.9	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°	2638.7	26.8
0°-40°	4291.7	43.6
0°-60°	7551.2	76.7
0°-90°	9851.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9851.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3438	3438	3438	3438	3438	
5°	3430	3424	3409	3430	3427	325
15°	3273	3275	3272	3299	3299	923
25°	2979	2984	3005	3048	3052	1371
35°	2570	2587	2634	2701	2717	1605
45°	2087	2124	2205	2298	2327	1610
55°	1578	1623	1743	1858	1893	1405
65°	1050	1121	1267	1392	1438	1041
75°	534	623	803	932	961	567
85°	104	186	241	246	246	131
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3438.4	3438.4	3438.4	3438.4	3438.4
2.5°	3443.3	3438.4	3420.6	3441.7	3438.4
5°	3430.3	3423.9	3409.3	3430.3	3427.1
7.5°	3404.4	3401.2	3386.6	3410.9	3407.7
10°	3372.1	3368.8	3357.5	3381.8	3376.9
12.5°	3326.8	3325.2	3317.1	3346.2	3343.0
15°	3273.4	3275.0	3271.8	3299.3	3299.3
17.5°	3211.9	3210.3	3216.7	3250.7	3247.5
20°	3140.7	3142.3	3150.4	3189.2	3189.2
22.5°	3066.3	3064.6	3082.4	3121.3	3124.5
25°	2978.9	2983.7	3004.8	3048.5	3051.7
27.5°	2885.0	2893.1	2919.0	2969.2	2974.0
30°	2786.3	2796.0	2834.9	2881.8	2888.3
32.5°	2677.9	2699.0	2734.6	2794.4	2810.6
35°	2569.5	2587.3	2634.2	2700.6	2716.8
37.5°	2449.8	2478.9	2532.3	2605.1	2626.1
40°	2331.7	2360.8	2427.1	2503.2	2525.8
42.5°	2211.9	2242.7	2318.7	2404.5	2428.7
45°	2087.3	2124.5	2205.4	2297.7	2326.8
47.5°	1959.5	2003.2	2090.6	2190.9	2223.2
50°	1833.3	1877.0	1977.3	2080.9	2110.0
52.5°	1697.4	1752.4	1859.2	1970.8	1999.9
55°	1577.6	1622.9	1742.7	1857.6	1893.2
57.5°	1436.9	1498.3	1626.2	1742.7	1776.7
60°	1312.3	1368.9	1504.8	1622.9	1661.8
62.5°	1186.1	1244.3	1380.2	1514.5	1550.1
65°	1050.1	1121.3	1267.0	1391.5	1438.5
67.5°	920.7	995.1	1144.0	1276.7	1325.2
70°	792.9	868.9	1030.7	1166.6	1205.5
72.5°	666.6	745.9	914.2	1046.9	1092.2
75°	534.0	623.0	802.6	932.0	961.1
77.5°	409.4	508.1	689.3	776.7	797.7
80°	292.9	401.3	550.1	613.3	629.4
82.5°	192.6	297.7	411.0	445.0	440.1
85°	103.6	186.1	241.1	245.9	245.9
87.5°	40.5	74.4	76.0	58.3	55.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)