

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: P473800

Luminaire Tested: **24CZ2-130VHE-UNV-L830-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P473800  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-130VHE-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**

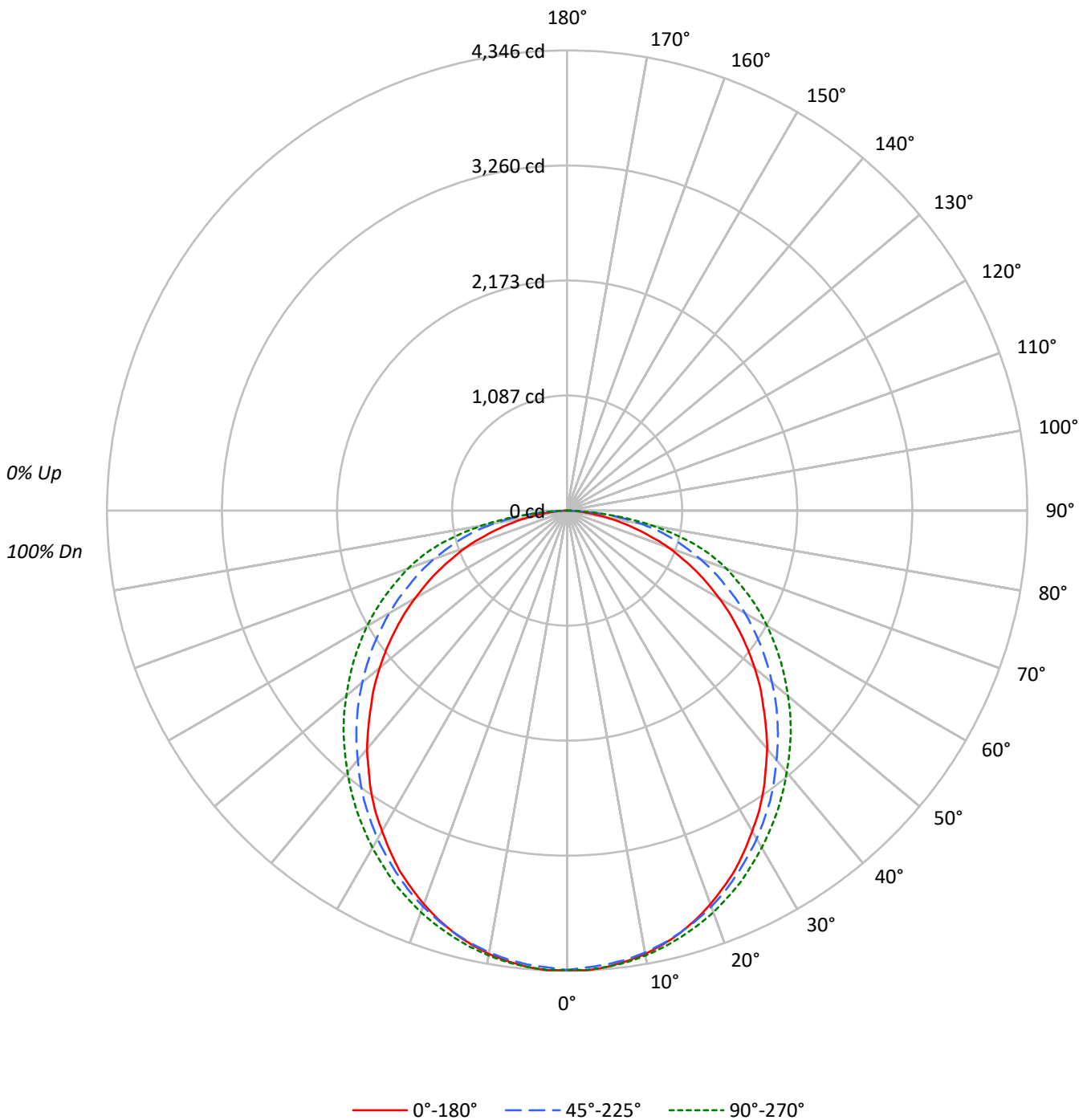
Lumens per Lamp: N/A  
Luminaire Lumens: 12558.3 lumens  
Efficiency: N/A  
Efficacy: 136.2 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 92.2  
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°	5839	5839	5839
5°	5842	5812	5842
10°	5810	5790	5829
15°	5751	5748	5805
20°	5665	5700	5781
25°	5566	5629	5753
30°	5431	5563	5712
35°	5309	5492	5688
40°	5163	5402	5666
45°	4988	5347	5683
50°	4837	5287	5699
55°	4659	5249	5763
60°	4466	5225	5869
65°	4257	5206	6020
70°	4007	5260	6297
75°	3523	5369	6550
80°	2940	5408	6320
85°	2098	4636	4698



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	410.2	3.3
10°-20°	1168.5	9.3
20°-30°	1753.0	14.0
30°-40°	2092.9	16.7
40°-50°	2167.9	17.3
50°-60°	1995.7	15.9
60°-70°	1609.9	12.8
70°-80°	1051.9	8.4
80°-90°	308.4	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°	3331.7	26.5
0°-40°	5424.6	43.2
0°-60°	9588.2	76.3
0°-90°	12558.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12558.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4340	4340	4340	4340	4340	
5°	4326	4321	4303	4328	4326	410
15°	4129	4129	4127	4167	4167	1163
25°	3749	3757	3792	3861	3875	1724
35°	3232	3260	3344	3435	3463	2019
45°	2621	2686	2810	2936	2986	2026
55°	1986	2071	2238	2402	2457	1778
65°	1337	1428	1635	1822	1891	1322
75°	678	805	1033	1211	1260	723
85°	136	235	300	318	304	169
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4339.7	4339.7	4339.7	4339.7	4339.7
2.5°	4345.8	4339.7	4317.4	4343.7	4341.7
5°	4325.5	4321.4	4303.2	4327.5	4325.5
7.5°	4293.0	4291.0	4276.8	4303.2	4303.2
10°	4252.4	4248.4	4238.2	4268.7	4266.6
12.5°	4195.6	4193.6	4187.5	4224.0	4222.0
15°	4128.7	4128.7	4126.7	4167.2	4167.2
17.5°	4047.5	4049.6	4057.7	4104.3	4106.4
20°	3956.2	3964.4	3980.6	4033.3	4037.4
22.5°	3852.8	3869.0	3891.3	3950.1	3956.2
25°	3749.3	3757.4	3791.9	3860.9	3875.1
27.5°	3623.5	3643.8	3688.4	3759.4	3773.6
30°	3495.7	3524.1	3580.9	3653.9	3676.3
32.5°	3369.9	3394.2	3461.2	3544.4	3570.8
35°	3231.9	3260.3	3343.5	3434.8	3463.2
37.5°	3079.8	3124.4	3211.7	3317.2	3347.6
40°	2939.8	2980.4	3075.7	3193.4	3225.9
42.5°	2779.5	2830.2	2945.9	3065.6	3106.2
45°	2621.3	2686.2	2809.9	2935.7	2986.5
47.5°	2473.2	2525.9	2672.0	2814.0	2858.6
50°	2310.8	2371.7	2525.9	2676.0	2722.7
52.5°	2150.6	2223.6	2379.8	2538.1	2588.8
55°	1986.2	2071.4	2237.8	2402.1	2456.9
57.5°	1828.0	1913.2	2085.6	2260.1	2316.9
60°	1659.6	1750.9	1941.6	2110.0	2181.0
62.5°	1497.3	1588.6	1789.4	1972.0	2039.0
65°	1337.0	1428.3	1635.2	1821.9	1890.9
67.5°	1170.6	1270.1	1491.2	1671.8	1738.7
70°	1018.5	1113.8	1337.0	1529.7	1600.8
72.5°	844.0	957.6	1184.8	1375.6	1442.5
75°	677.6	805.4	1032.7	1211.2	1259.9
77.5°	523.4	651.3	878.5	1012.4	1042.8
80°	379.4	509.2	697.9	791.2	815.6
82.5°	245.5	379.4	505.2	568.1	576.2
85°	135.9	235.3	300.3	318.5	304.3
87.5°	48.7	89.3	87.2	71.0	56.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)