

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: P474044

Luminaire Tested: **24CZ2-100VHE-S-UNV-L835-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474044  
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-L835-CD1-U  
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10208.2 lumens  
Efficiency: N/A  
Efficacy: 143.6 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

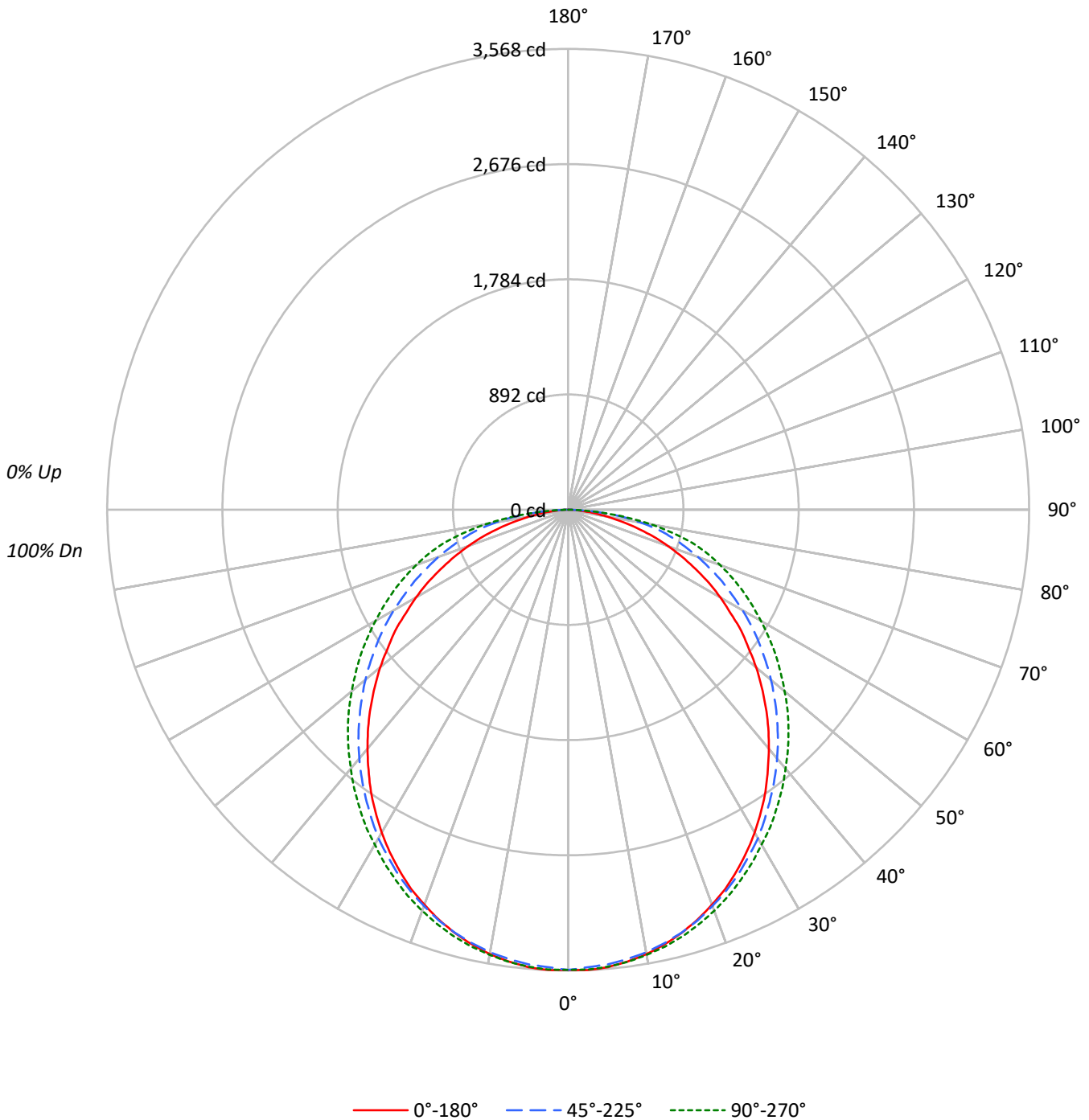
Input Watts (W): 71.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4794	4794	4794
5°	4801	4772	4797
10°	4774	4754	4781
15°	4725	4723	4762
20°	4660	4675	4732
25°	4583	4623	4695
30°	4486	4564	4650
35°	4374	4484	4624
40°	4244	4418	4597
45°	4116	4349	4588
50°	3977	4289	4577
55°	3835	4236	4602
60°	3659	4196	4634
65°	3465	4180	4746
70°	3232	4202	4914
75°	2876	4324	5178
80°	2352	4417	5054
85°	1656	3856	3935



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	336.9	3.3
10°-20°	959.4	9.4
20°-30°	1438.2	14.1
30°-40°	1712.9	16.8
40°-50°	1766.1	17.3
50°-60°	1611.6	15.8
60°-70°	1288.7	12.6
70°-80°	841.7	8.2
80°-90°	252.7	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°	2734.4	26.8
0°-40°	4447.3	43.6
0°-60°	7825.0	76.7
0°-90°	10208.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10208.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3563	3563	3563	3563	3563	
5°	3555	3548	3533	3555	3551	337
15°	3392	3394	3390	3419	3419	956
25°	3087	3092	3114	3159	3162	1421
35°	2663	2681	2730	2798	2815	1663
45°	2163	2202	2285	2381	2411	1668
55°	1635	1682	1806	1925	1962	1456
65°	1088	1162	1313	1442	1491	1079
75°	553	646	832	966	996	588
85°	107	193	250	255	255	136
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3563.1	3563.1	3563.1	3563.1	3563.1
2.5°	3568.2	3563.1	3544.7	3566.5	3563.1
5°	3554.7	3548.0	3532.9	3554.7	3551.4
7.5°	3527.9	3524.6	3509.5	3534.6	3531.3
10°	3494.4	3491.0	3479.3	3504.4	3499.4
12.5°	3447.4	3445.8	3437.4	3467.6	3464.2
15°	3392.1	3393.8	3390.4	3418.9	3418.9
17.5°	3328.4	3326.7	3333.4	3368.6	3365.3
20°	3254.6	3256.3	3264.7	3304.9	3304.9
22.5°	3177.5	3175.8	3194.2	3234.5	3237.8
25°	3086.9	3092.0	3113.8	3159.0	3162.4
27.5°	2989.7	2998.1	3024.9	3076.9	3081.9
30°	2887.4	2897.5	2937.7	2986.3	2993.0
32.5°	2775.1	2796.8	2833.7	2895.8	2912.5
35°	2662.7	2681.2	2729.8	2798.5	2815.3
37.5°	2538.6	2568.8	2624.1	2699.6	2721.4
40°	2416.2	2446.4	2515.2	2594.0	2617.4
42.5°	2292.1	2324.0	2402.8	2491.7	2516.8
45°	2163.0	2201.6	2285.4	2381.0	2411.2
47.5°	2030.6	2075.8	2166.4	2270.3	2303.9
50°	1899.8	1945.1	2049.0	2156.3	2186.5
52.5°	1758.9	1815.9	1926.6	2042.3	2072.5
55°	1634.8	1681.8	1805.9	1924.9	1961.8
57.5°	1489.0	1552.7	1685.2	1805.9	1841.1
60°	1359.9	1418.5	1559.4	1681.8	1722.0
62.5°	1229.1	1289.4	1430.3	1569.5	1606.3
65°	1088.2	1162.0	1312.9	1442.0	1490.6
67.5°	954.1	1031.2	1185.5	1323.0	1373.3
70°	821.6	900.4	1068.1	1208.9	1249.2
72.5°	690.8	773.0	947.4	1084.9	1131.8
75°	553.3	645.6	831.7	965.8	996.0
77.5°	424.2	526.5	714.3	804.8	826.6
80°	303.5	415.8	570.1	635.5	652.3
82.5°	199.5	308.5	425.9	461.1	456.1
85°	107.3	192.8	249.8	254.9	254.9
87.5°	41.9	77.1	78.8	60.4	57.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)