

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: P473845

Luminaire Tested: **24CZ2-105VHE-UNV-L835-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P473845  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-105VHE-UNV-L835-CD1-U  
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

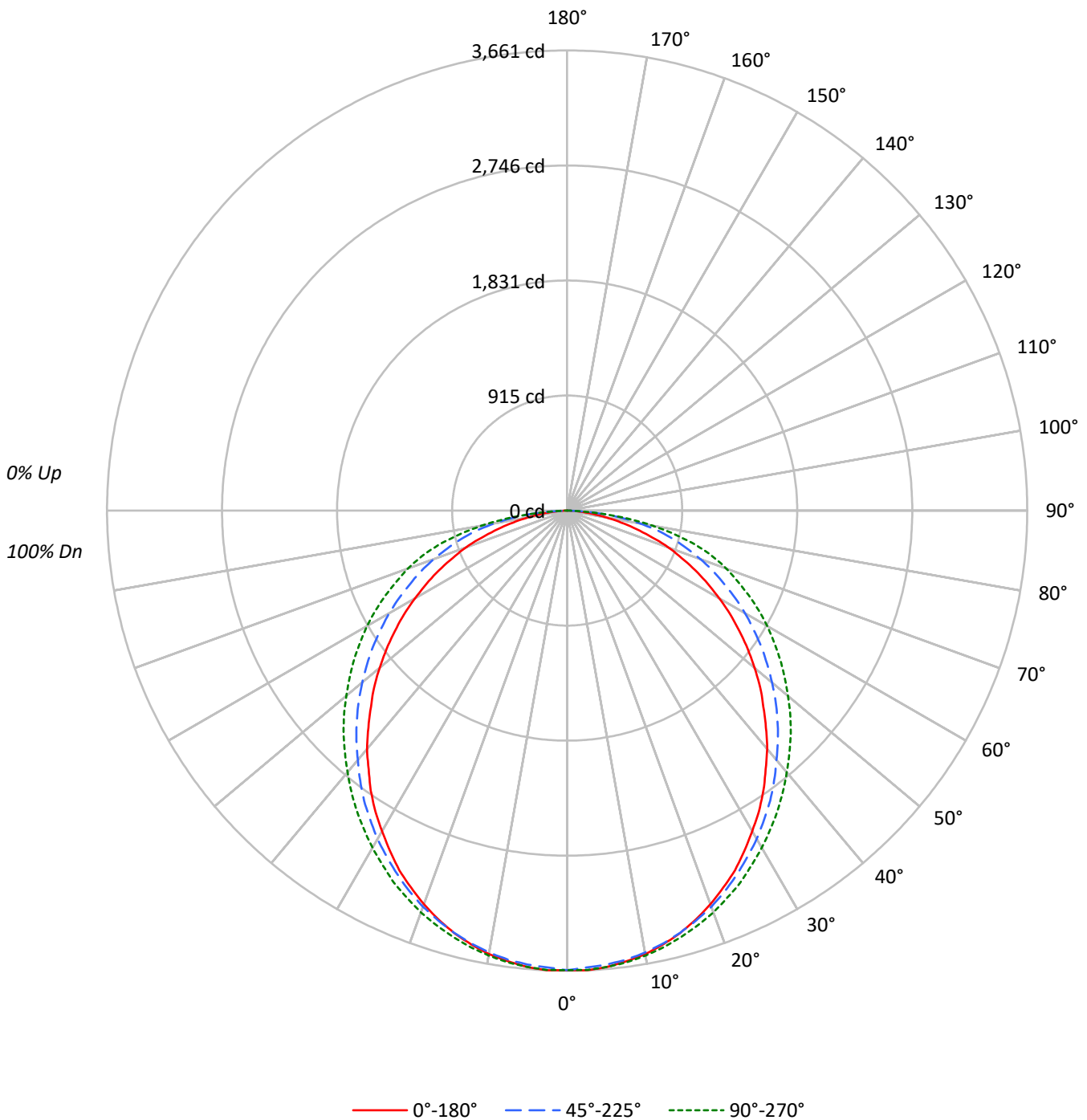
Lumens per Lamp: N/A  
Luminaire Lumens: 10579.9 lumens  
Efficiency: N/A  
Efficacy: 139.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 75.7  
Input Voltage (V): 120  
Input Current (Ain): 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°	4919	4919	4919
5°	4922	4896	4922
10°	4895	4878	4911
15°	4845	4843	4890
20°	4772	4802	4870
25°	4689	4743	4847
30°	4575	4687	4812
35°	4472	4627	4792
40°	4350	4551	4773
45°	4202	4505	4787
50°	4075	4454	4801
55°	3925	4423	4856
60°	3762	4402	4944
65°	3586	4386	5072
70°	3375	4431	5305
75°	2968	4523	5518
80°	2476	4556	5324
85°	1768	3906	3958



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	345.6	3.3
10°-20°	984.4	9.3
20°-30°	1476.8	14.0
30°-40°	1763.2	16.7
40°-50°	1826.3	17.3
50°-60°	1681.3	15.9
60°-70°	1356.3	12.8
70°-80°	886.2	8.4
80°-90°	259.8	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°	2806.8	26.5
0°-40°	4570.0	43.2
0°-60°	8077.7	76.3
0°-90°	10579.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10579.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3656	3656	3656	3656	3656	
5°	3644	3641	3625	3646	3644	346
15°	3478	3478	3476	3511	3511	980
25°	3159	3166	3194	3253	3265	1452
35°	2723	2747	2817	2894	2918	1701
45°	2208	2263	2367	2473	2516	1707
55°	1673	1745	1885	2024	2070	1498
65°	1126	1203	1378	1535	1593	1114
75°	571	679	870	1020	1061	609
85°	114	198	253	268	256	142
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3656.0	3656.0	3656.0	3656.0	3656.0
2.5°	3661.1	3656.0	3637.2	3659.4	3657.7
5°	3644.0	3640.6	3625.2	3645.7	3644.0
7.5°	3616.7	3615.0	3603.0	3625.2	3625.2
10°	3582.5	3579.1	3570.5	3596.2	3594.5
12.5°	3534.6	3532.9	3527.8	3558.6	3556.9
15°	3478.2	3478.2	3476.5	3510.7	3510.7
17.5°	3409.9	3411.6	3418.4	3457.7	3459.4
20°	3333.0	3339.8	3353.5	3397.9	3401.3
22.5°	3245.8	3259.5	3278.3	3327.8	3333.0
25°	3158.6	3165.5	3194.5	3252.6	3264.6
27.5°	3052.6	3069.7	3107.3	3167.2	3179.1
30°	2945.0	2968.9	3016.8	3078.3	3097.1
32.5°	2839.0	2859.5	2915.9	2986.0	3008.2
35°	2722.8	2746.7	2816.8	2893.7	2917.6
37.5°	2594.6	2632.2	2705.7	2794.6	2820.2
40°	2476.6	2510.8	2591.2	2690.3	2717.6
42.5°	2341.6	2384.3	2481.8	2582.6	2616.8
45°	2208.3	2263.0	2367.3	2473.2	2516.0
47.5°	2083.5	2128.0	2251.0	2370.7	2408.3
50°	1946.8	1998.1	2128.0	2254.4	2293.8
52.5°	1811.8	1873.3	2004.9	2138.2	2180.9
55°	1673.3	1745.1	1885.3	2023.7	2069.9
57.5°	1540.0	1611.8	1757.1	1904.1	1951.9
60°	1398.1	1475.0	1635.7	1777.6	1837.4
62.5°	1261.4	1338.3	1507.5	1661.4	1717.8
65°	1126.4	1203.3	1377.6	1534.9	1593.0
67.5°	986.2	1070.0	1256.3	1408.4	1464.8
70°	858.0	938.4	1126.4	1288.7	1348.6
72.5°	711.0	806.7	998.2	1158.8	1215.2
75°	570.9	678.6	870.0	1020.4	1061.4
77.5°	441.0	548.7	740.1	852.9	878.5
80°	319.6	429.0	588.0	666.6	687.1
82.5°	206.8	319.6	425.6	478.6	485.4
85°	114.5	198.3	253.0	268.3	256.4
87.5°	41.0	75.2	73.5	59.8	47.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)