

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: P474846

Luminaire Tested: **22CZ2-105VHE-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474846  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-105VHE-UNV-L840-CD1-U  
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10730.7 lumens  
Efficiency: N/A  
Efficacy: 135.0 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

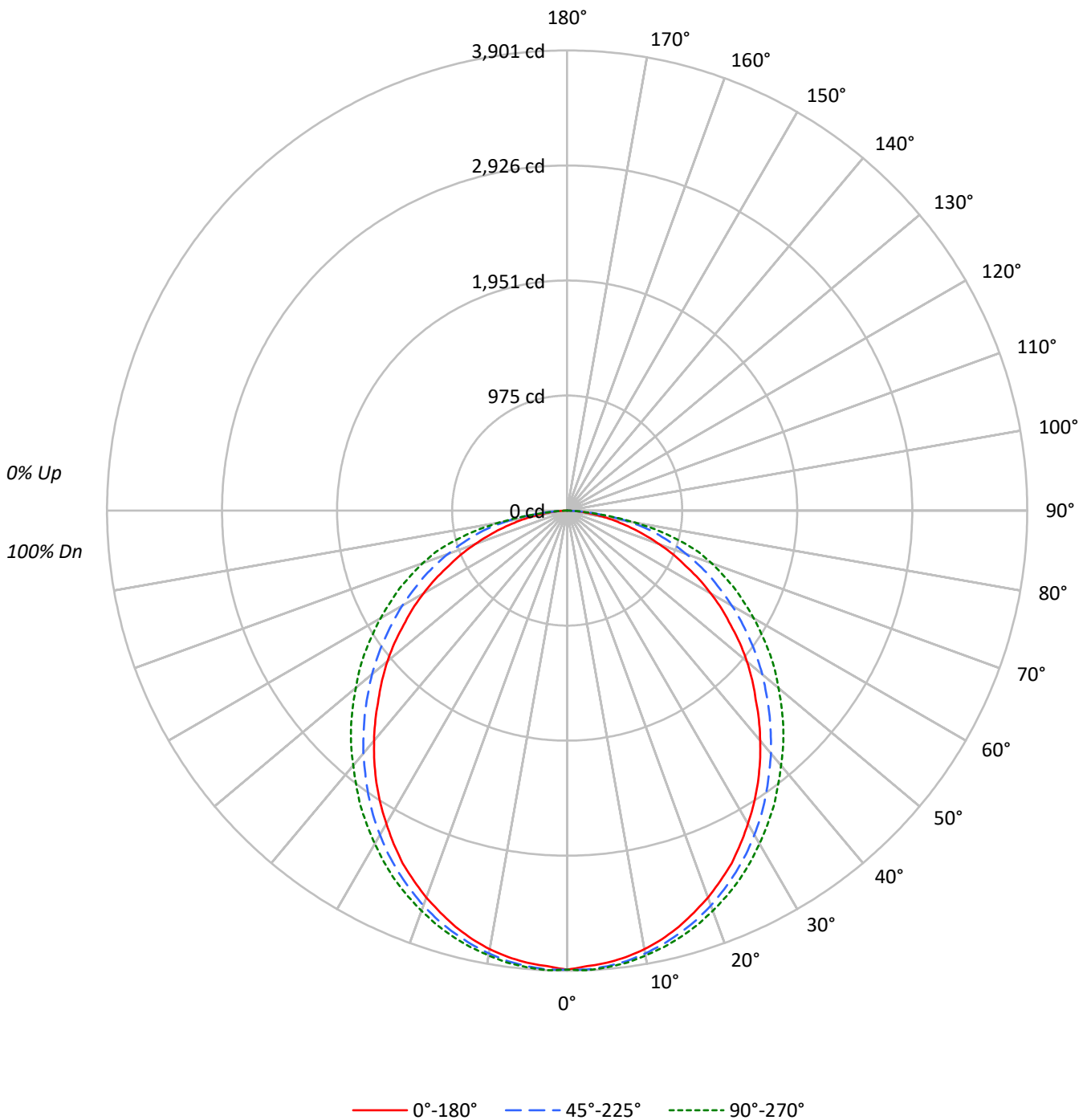
Input Watts (W): 79.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	73	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	10472	10472	10472
5°	10396	10475	10500
10°	10317	10417	10466
15°	10178	10323	10418
20°	9995	10202	10339
25°	9797	10046	10255
30°	9527	9865	10133
35°	9260	9655	10035
40°	8946	9440	9910
45°	8605	9226	9865
50°	8326	9038	9788
55°	7937	8841	9810
60°	7579	8690	9837
65°	7047	8578	9992
70°	6512	8457	10242
75°	5823	8418	10304
80°	4885	7978	8996
85°	3782	5462	5110



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	367.6	3.4
10°-20°	1043.7	9.7
20°-30°	1556.2	14.5
30°-40°	1837.1	17.1
40°-50°	1872.3	17.4
50°-60°	1688.5	15.7
60°-70°	1327.2	12.4
70°-80°	830.9	7.7
80°-90°	207.2	1.9
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°	2967.5	27.7
0°-40°	4804.6	44.8
0°-60°	8365.5	78.0
0°-90°	10730.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10730.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3892	3892	3892	3892	3892	
5°	3848	3858	3878	3887	3887	365
15°	3653	3669	3706	3733	3740	1029
25°	3300	3325	3384	3436	3454	1517
35°	2819	2855	2939	3021	3055	1761
45°	2261	2311	2424	2542	2592	1749
55°	1692	1744	1884	2030	2091	1518
65°	1107	1175	1347	1497	1569	1103
75°	560	644	810	955	991	595
85°	122	156	177	177	166	148
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3891.5	3891.5	3891.5	3891.5	3891.5
2.5°	3866.5	3875.6	3893.8	3900.6	3900.6
5°	3848.4	3857.5	3877.9	3887.0	3887.0
7.5°	3818.9	3828.0	3852.9	3864.3	3866.5
10°	3775.8	3787.2	3812.1	3830.3	3830.3
12.5°	3721.4	3732.7	3764.5	3787.2	3789.4
15°	3653.4	3669.3	3705.5	3732.7	3739.6
17.5°	3574.0	3599.0	3639.8	3673.8	3680.6
20°	3490.1	3515.0	3562.7	3601.2	3610.3
22.5°	3397.1	3419.8	3476.5	3524.1	3535.5
25°	3299.6	3324.6	3383.5	3435.7	3453.8
27.5°	3183.9	3213.4	3283.7	3342.7	3360.8
30°	3066.0	3102.3	3174.9	3240.6	3261.1
32.5°	2945.8	2979.9	3061.5	3131.8	3159.0
35°	2818.8	2855.1	2939.0	3020.7	3054.7
37.5°	2685.0	2721.3	2812.0	2905.0	2936.8
40°	2546.7	2589.8	2687.3	2787.1	2821.1
42.5°	2406.1	2451.5	2553.5	2664.6	2710.0
45°	2261.0	2310.9	2424.2	2542.2	2592.1
47.5°	2129.4	2170.3	2288.2	2417.4	2465.1
50°	1988.8	2027.4	2158.9	2288.2	2338.1
52.5°	1846.0	1882.2	2022.9	2158.9	2220.1
55°	1691.8	1743.9	1884.5	2029.7	2090.9
57.5°	1555.7	1603.3	1748.5	1895.9	1954.8
60°	1408.3	1458.2	1614.7	1764.3	1827.8
62.5°	1260.9	1315.3	1474.1	1635.1	1694.0
65°	1106.7	1174.7	1347.1	1496.7	1569.3
67.5°	975.1	1040.9	1211.0	1367.5	1431.0
70°	827.7	904.8	1074.9	1233.7	1301.7
72.5°	689.4	766.5	941.1	1099.9	1167.9
75°	560.1	644.0	809.6	954.7	991.0
77.5°	435.4	514.8	680.3	764.2	802.8
80°	315.2	392.3	514.8	571.5	580.5
82.5°	213.2	278.9	349.2	365.1	356.0
85°	122.5	156.5	176.9	176.9	165.5
87.5°	49.9	49.9	43.1	27.2	15.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)