

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: P474788

Luminaire Tested: **22CZ2-105VHE-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474788
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-105VHE-UNV-L830-CD1-U
Description: 2'X2' 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: 10162.0 lumens
Efficiency: N/A
Efficacy: 127.8 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

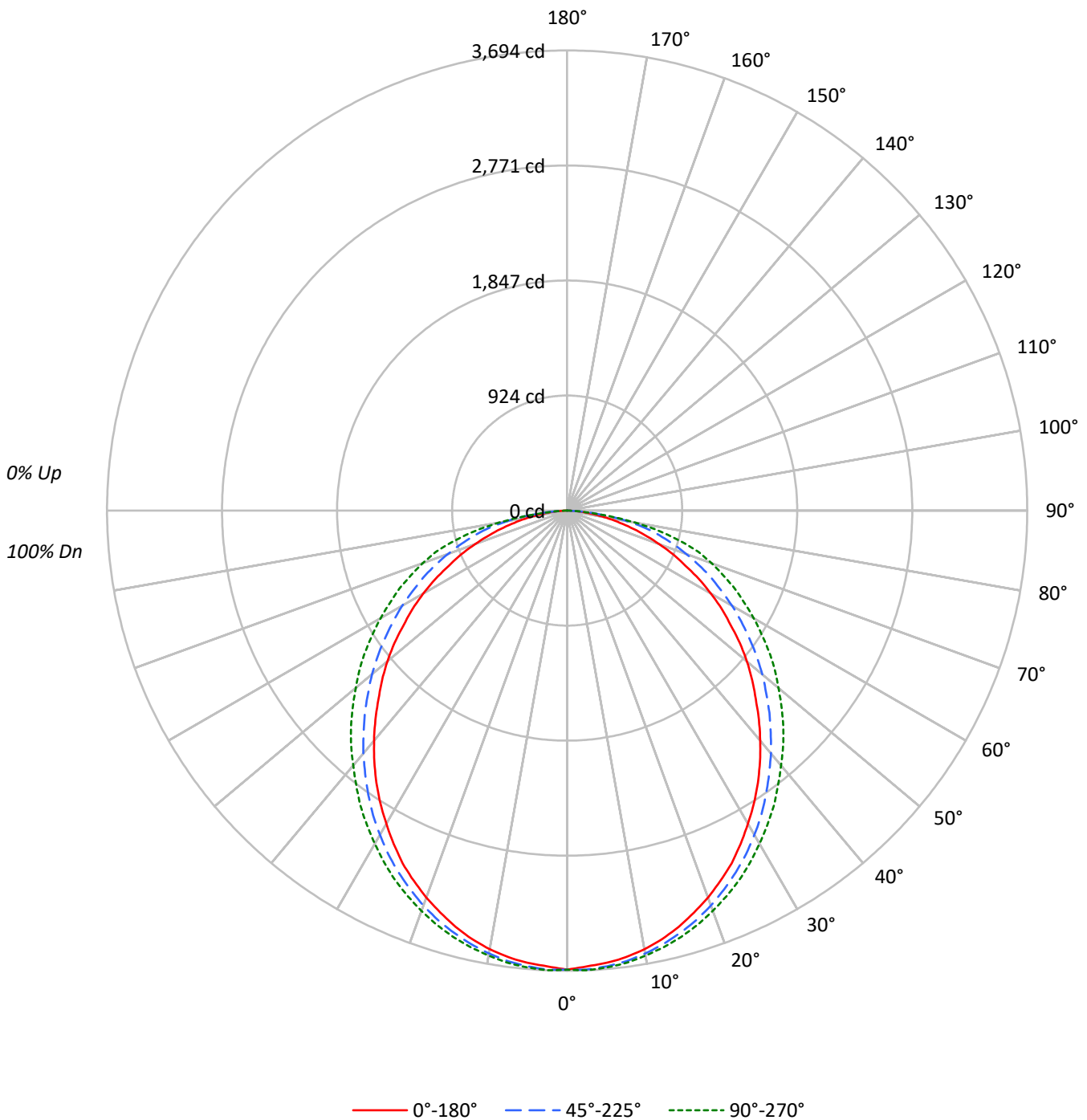
Input Watts (W): 79.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	9917	9917	9917
5°	9845	9920	9943
10°	9771	9865	9912
15°	9639	9776	9866
20°	9465	9662	9791
25°	9278	9514	9712
30°	9022	9342	9596
35°	8770	9143	9503
40°	8472	8940	9385
45°	8149	8737	9342
50°	7885	8559	9270
55°	7516	8373	9290
60°	7178	8230	9316
65°	6673	8123	9463
70°	6168	8010	9699
75°	5516	7971	9758
80°	4626	7555	8520
85°	3582	5172	4841



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	348.2	3.4
10°-20°	988.4	9.7
20°-30°	1473.7	14.5
30°-40°	1739.7	17.1
40°-50°	1773.1	17.4
50°-60°	1599.0	15.7
60°-70°	1256.8	12.4
70°-80°	786.9	7.7
80°-90°	196.2	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°	2810.3	27.7
0°-40°	4550.0	44.8
0°-60°	7922.1	78.0
0°-90°	10162.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10162.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3685	3685	3685	3685	3685	
5°	3644	3653	3672	3681	3681	346
15°	3460	3475	3509	3535	3541	975
25°	3125	3148	3204	3254	3271	1437
35°	2670	2704	2783	2861	2893	1668
45°	2141	2188	2296	2408	2455	1656
55°	1602	1652	1785	1922	1980	1438
65°	1048	1112	1276	1417	1486	1045
75°	530	610	767	904	938	563
85°	116	148	168	168	157	140
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3685.3	3685.3	3685.3	3685.3	3685.3
2.5°	3661.6	3670.2	3687.4	3693.9	3693.9
5°	3644.5	3653.1	3672.4	3681.0	3681.0
7.5°	3616.5	3625.1	3648.8	3659.5	3661.6
10°	3575.7	3586.5	3610.1	3627.3	3627.3
12.5°	3524.2	3534.9	3565.0	3586.5	3588.6
15°	3459.8	3474.8	3509.2	3534.9	3541.4
17.5°	3384.6	3408.2	3446.9	3479.1	3485.5
20°	3305.1	3328.8	3373.9	3410.4	3419.0
22.5°	3217.1	3238.6	3292.3	3337.4	3348.1
25°	3124.7	3148.4	3204.2	3253.6	3270.8
27.5°	3015.2	3043.1	3109.7	3165.6	3182.7
30°	2903.5	2937.9	3006.6	3068.9	3088.2
32.5°	2789.7	2821.9	2899.3	2965.8	2991.6
35°	2669.5	2703.8	2783.3	2860.6	2892.8
37.5°	2542.8	2577.1	2663.0	2751.1	2781.1
40°	2411.7	2452.6	2544.9	2639.4	2671.6
42.5°	2278.6	2321.5	2418.2	2523.4	2566.4
45°	2141.2	2188.4	2295.8	2407.5	2454.7
47.5°	2016.6	2055.2	2166.9	2289.3	2334.4
50°	1883.4	1919.9	2044.5	2166.9	2214.2
52.5°	1748.1	1782.5	1915.7	2044.5	2102.5
55°	1602.1	1651.5	1784.7	1922.1	1980.1
57.5°	1473.2	1518.3	1655.8	1795.4	1851.2
60°	1333.7	1380.9	1529.1	1670.8	1731.0
62.5°	1194.1	1245.6	1395.9	1548.4	1604.3
65°	1048.0	1112.5	1275.7	1417.4	1486.1
67.5°	923.5	985.7	1146.8	1295.0	1355.1
70°	783.9	856.9	1018.0	1168.3	1232.7
72.5°	652.9	725.9	891.3	1041.6	1106.0
75°	530.5	609.9	766.7	904.1	938.5
77.5°	412.3	487.5	644.3	723.7	760.2
80°	298.5	371.5	487.5	541.2	549.8
82.5°	201.9	264.2	330.7	345.8	337.2
85°	116.0	148.2	167.5	167.5	156.8
87.5°	47.2	47.2	40.8	25.8	15.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)