

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: P474248

Luminaire Tested: **24CZ2-120VHE-RDP-UNV-L835-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474248  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-120VHE-RDP-UNV-L835-CD1-U  
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP  
INSERT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8025.3 lumens  
Efficiency: N/A  
Efficacy: 95.3 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

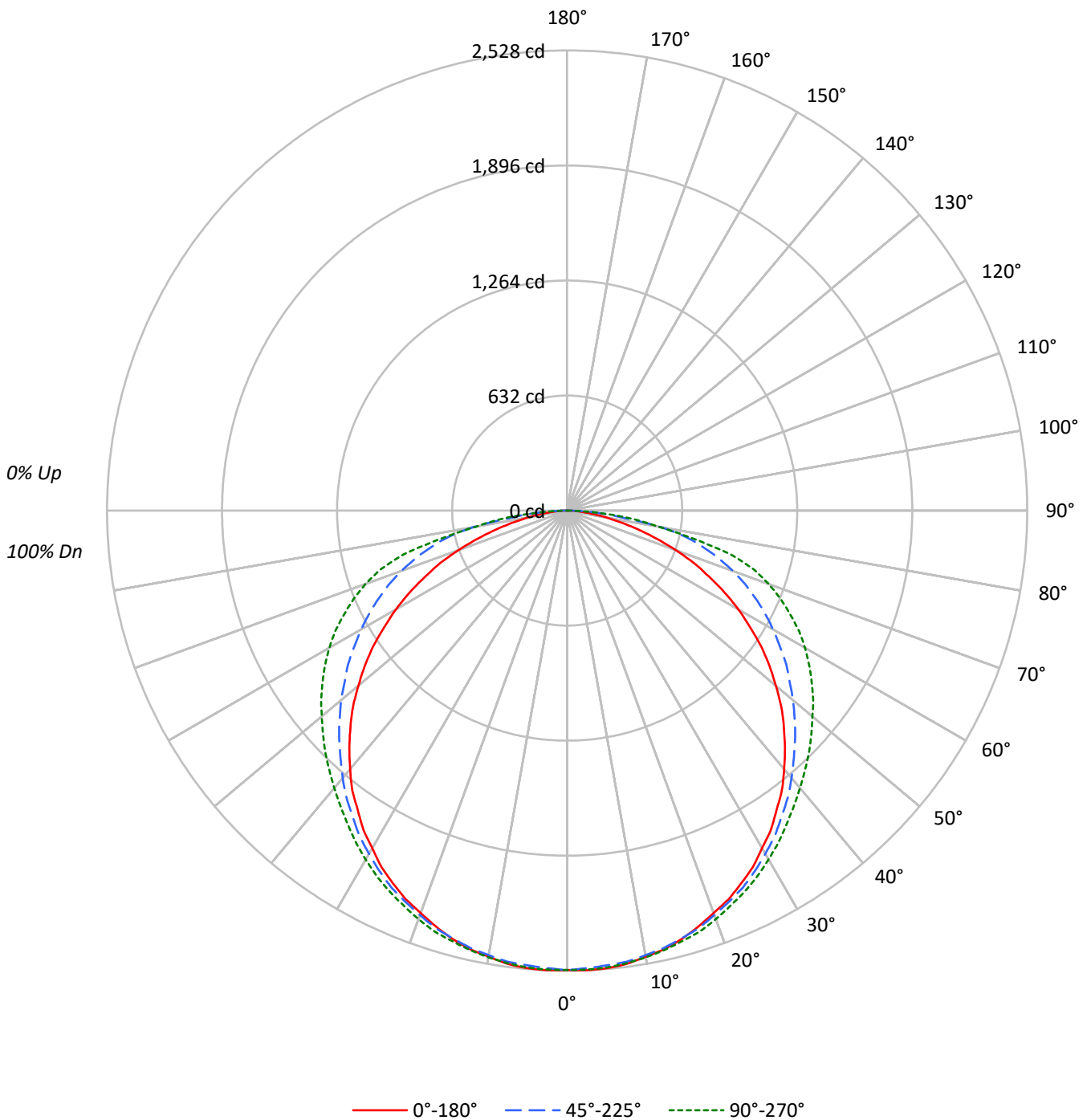
Input Watts (W): 84.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

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

	0°	45°	90°
0°	3396	3396	3396
5°	3409	3387	3403
10°	3399	3388	3405
15°	3394	3388	3410
20°	3369	3386	3420
25°	3357	3392	3428
30°	3327	3383	3439
35°	3295	3374	3452
40°	3258	3370	3496
45°	3204	3371	3575
50°	3133	3391	3683
55°	3053	3445	3847
60°	2925	3513	4060
65°	2738	3637	4308
70°	2490	3806	4635
75°	2110	4015	4843
80°	1667	4039	3916
85°	1230	3074	3443



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	239.4	3.0
10°-20°	689.0	8.6
20°-30°	1053.6	13.1
30°-40°	1288.0	16.0
40°-50°	1372.8	17.1
50°-60°	1312.5	16.4
60°-70°	1111.9	13.9
70°-80°	747.3	9.3
80°-90°	210.9	2.6
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°	1982.0	24.7
0°-40°	3270.0	40.7
0°-60°	5955.3	74.2
0°-90°	8025.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8025.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2524	2524	2524	2524	2524	
5°	2524	2520	2508	2520	2520	240
15°	2436	2436	2432	2452	2448	687
25°	2261	2269	2285	2305	2309	1042
35°	2006	2022	2054	2094	2102	1257
45°	1684	1712	1772	1847	1879	1299
55°	1302	1349	1469	1584	1640	1159
65°	860	948	1142	1294	1353	854
75°	406	553	772	904	932	435
85°	80	163	199	215	223	99
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2523.9	2523.9	2523.9	2523.9	2523.9
2.5°	2527.9	2527.9	2515.9	2523.9	2523.9
5°	2523.9	2519.9	2507.9	2519.9	2519.9
7.5°	2511.9	2507.9	2500.0	2511.9	2507.9
10°	2488.0	2488.0	2480.1	2492.0	2492.0
12.5°	2468.1	2464.1	2460.2	2476.1	2472.1
15°	2436.3	2436.3	2432.3	2452.2	2448.2
17.5°	2396.4	2400.4	2404.4	2420.3	2424.3
20°	2352.6	2360.6	2364.6	2388.5	2388.5
22.5°	2312.8	2316.8	2324.7	2348.6	2348.6
25°	2261.0	2269.0	2284.9	2304.8	2308.8
27.5°	2209.2	2213.2	2233.1	2261.0	2265.0
30°	2141.5	2153.5	2177.4	2209.2	2213.2
32.5°	2081.8	2093.7	2121.6	2153.5	2161.4
35°	2006.1	2022.0	2053.9	2093.7	2101.7
37.5°	1938.4	1950.4	1990.2	2034.0	2045.9
40°	1855.2	1878.7	1918.5	1970.3	1990.2
42.5°	1771.5	1795.4	1843.2	1910.5	1934.4
45°	1683.9	1711.8	1771.5	1847.2	1878.7
47.5°	1596.3	1628.2	1695.9	1783.5	1819.3
50°	1496.7	1536.5	1620.2	1719.8	1759.6
52.5°	1401.1	1448.9	1540.5	1652.0	1703.8
55°	1301.6	1349.4	1468.8	1584.3	1640.1
57.5°	1190.0	1253.8	1385.2	1516.6	1576.4
60°	1086.9	1146.2	1305.5	1448.9	1508.7
62.5°	975.4	1055.0	1225.9	1377.2	1437.0
65°	859.9	947.5	1142.3	1293.6	1353.3
67.5°	756.3	851.9	1059.0	1210.0	1269.7
70°	632.9	752.3	967.4	1118.4	1178.1
72.5°	517.4	648.8	871.8	1019.2	1074.9
75°	405.8	553.2	772.3	903.7	931.6
77.5°	302.7	457.6	668.7	724.5	704.6
80°	215.1	366.4	521.3	493.5	505.4
82.5°	139.4	278.8	322.6	366.4	378.0
85°	79.7	163.3	199.1	215.1	223.0
87.5°	35.8	59.7	79.7	79.7	75.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)