

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: P474197

Luminaire Tested: **24CZ2-115VHE-RDP-UNV-L830-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474197  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-115VHE-RDP-UNV-L830-CD1-U  
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP  
INSERT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7441.9 lumens  
Efficiency: N/A  
Efficacy: 92.3 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

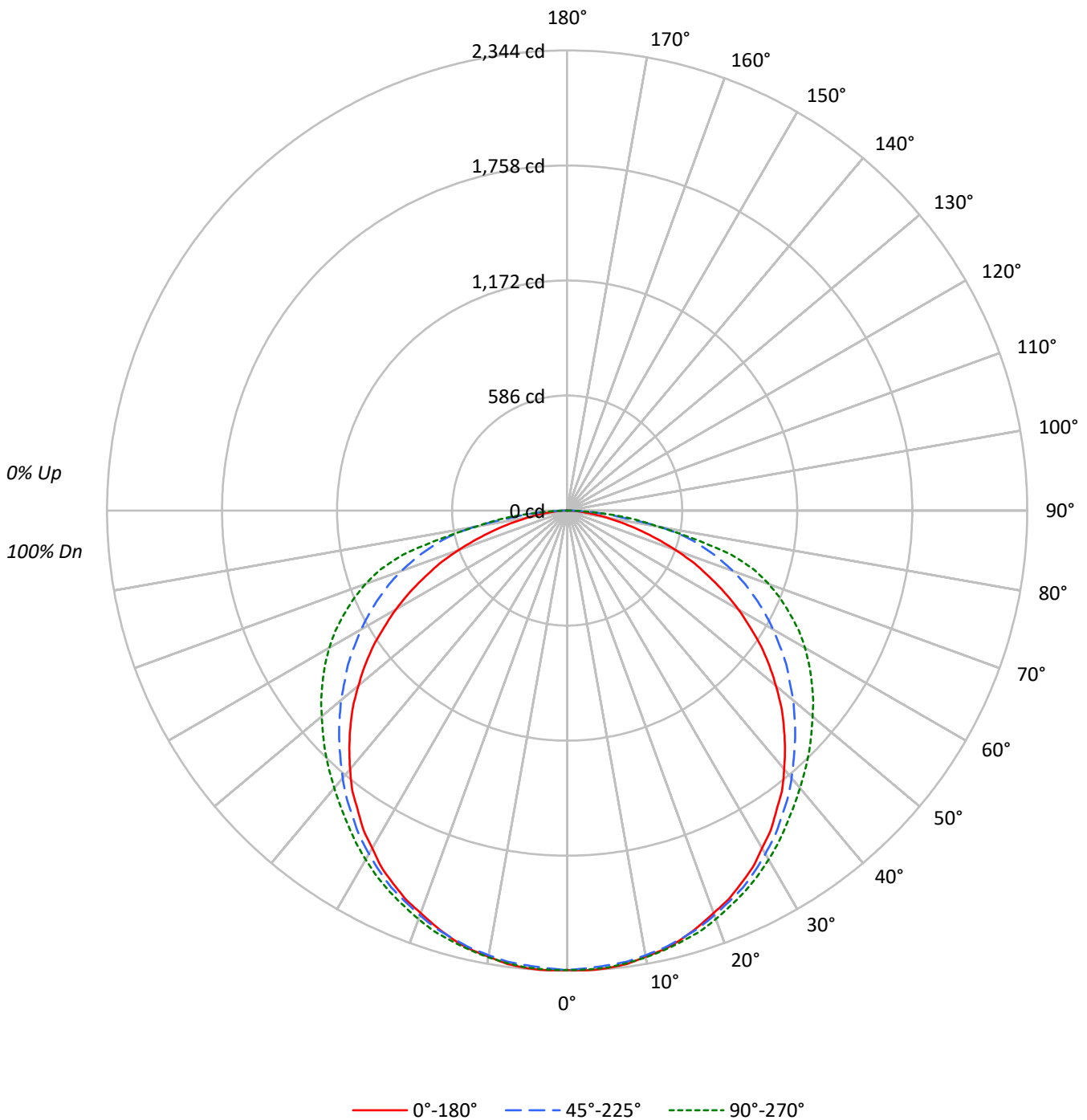
Input Watts (W): 80.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3149	3149	3149
5°	3161	3141	3156
10°	3152	3142	3157
15°	3147	3142	3162
20°	3124	3140	3171
25°	3113	3146	3178
30°	3085	3137	3189
35°	3056	3128	3201
40°	3022	3125	3241
45°	2971	3126	3315
50°	2905	3145	3415
55°	2831	3195	3568
60°	2712	3258	3765
65°	2539	3372	3995
70°	2308	3529	4297
75°	1956	3723	4491
80°	1545	3746	3632
85°	1141	2851	3193



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	222.0	3.0
10°-20°	638.9	8.6
20°-30°	977.0	13.1
30°-40°	1194.3	16.0
40°-50°	1273.0	17.1
50°-60°	1217.1	16.4
60°-70°	1031.0	13.9
70°-80°	692.9	9.3
80°-90°	195.5	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°	1837.9	24.7
0°-40°	3032.3	40.7
0°-60°	5522.4	74.2
0°-90°	7441.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7441.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2340	2340	2340	2340	2340	
5°	2340	2337	2326	2337	2337	222
15°	2259	2259	2255	2274	2270	637
25°	2097	2104	2119	2137	2141	966
35°	1860	1875	1905	1942	1949	1165
45°	1562	1587	1643	1713	1742	1204
55°	1207	1251	1362	1469	1521	1075
65°	797	879	1059	1200	1255	792
75°	376	513	716	838	864	403
85°	74	151	185	199	207	91
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2340.4	2340.4	2340.4	2340.4	2340.4
2.5°	2344.1	2344.1	2333.0	2340.4	2340.4
5°	2340.4	2336.7	2325.6	2336.7	2336.7
7.5°	2329.3	2325.6	2318.2	2329.3	2325.6
10°	2307.1	2307.1	2299.8	2310.8	2310.8
12.5°	2288.7	2285.0	2281.3	2296.1	2292.4
15°	2259.1	2259.1	2255.4	2273.9	2270.2
17.5°	2222.2	2225.9	2229.6	2244.4	2248.0
20°	2181.6	2189.0	2192.7	2214.8	2214.8
22.5°	2144.6	2148.3	2155.7	2177.9	2177.9
25°	2096.6	2104.0	2118.8	2137.3	2140.9
27.5°	2048.6	2052.3	2070.8	2096.6	2100.3
30°	1985.8	1996.9	2019.1	2048.6	2052.3
32.5°	1930.4	1941.5	1967.4	1996.9	2004.3
35°	1860.3	1875.0	1904.6	1941.5	1948.9
37.5°	1797.5	1808.6	1845.5	1886.1	1897.2
40°	1720.3	1742.1	1779.0	1827.0	1845.5
42.5°	1642.7	1664.9	1709.2	1771.6	1793.8
45°	1561.5	1587.3	1642.7	1712.9	1742.1
47.5°	1480.2	1509.8	1572.6	1653.8	1687.1
50°	1387.9	1424.8	1502.4	1594.7	1631.7
52.5°	1299.3	1343.6	1428.5	1531.9	1579.9
55°	1206.9	1251.3	1362.1	1469.2	1520.9
57.5°	1103.5	1162.6	1284.5	1406.4	1461.8
60°	1007.9	1062.9	1210.6	1343.6	1399.0
62.5°	904.5	978.3	1136.8	1277.1	1332.5
65°	797.4	878.6	1059.2	1199.6	1254.9
67.5°	701.3	790.0	982.0	1122.0	1177.4
70°	586.8	697.6	897.1	1037.0	1092.4
72.5°	479.7	601.6	808.4	945.1	996.8
75°	376.3	513.0	716.1	838.0	863.8
77.5°	280.7	424.3	620.1	671.8	653.3
80°	199.4	339.8	483.4	457.6	468.7
82.5°	129.3	258.5	299.1	339.8	350.5
85°	73.9	151.4	184.7	199.4	206.8
87.5°	33.2	55.4	73.9	73.9	70.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)