

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: P474305

Luminaire Tested: **24CZ2-155VHE-RDP-UNV-L840-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474305  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-155VHE-RDP-UNV-L840-CD1-U  
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP  
INSERT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10613.2 lumens  
Efficiency: N/A  
Efficacy: 93.1 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

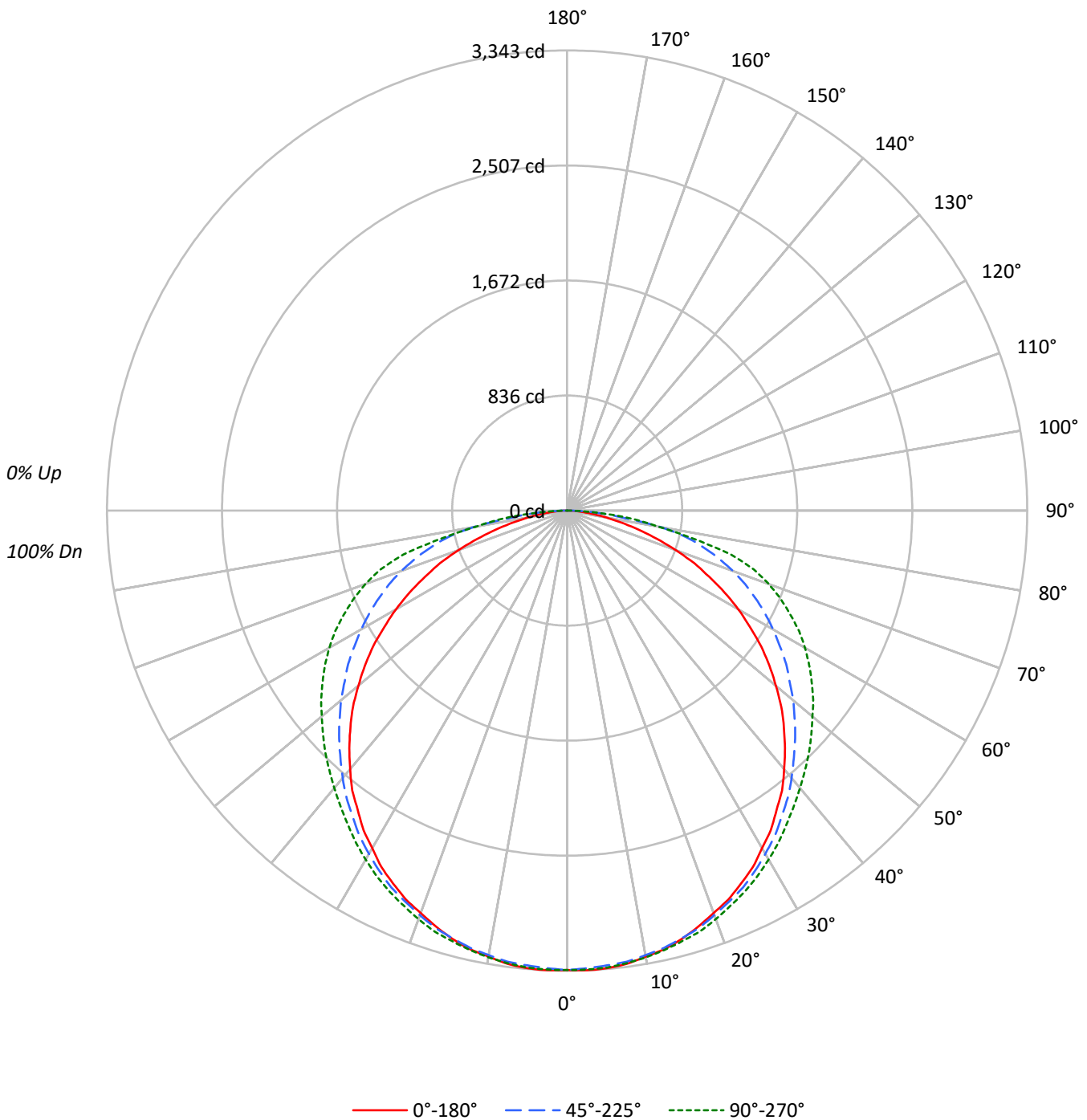
Input Watts (W): 114  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4491	4491	4491
5°	4508	4479	4501
10°	4495	4481	4503
15°	4488	4481	4510
20°	4455	4477	4523
25°	4439	4486	4533
30°	4400	4474	4547
35°	4358	4461	4565
40°	4309	4456	4623
45°	4237	4458	4728
50°	4143	4485	4871
55°	4038	4557	5088
60°	3868	4646	5369
65°	3620	4809	5698
70°	3292	5033	6129
75°	2790	5309	6405
80°	2204	5342	5179
85°	1626	4066	4554



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	316.6	3.0
10°-20°	911.2	8.6
20°-30°	1393.4	13.1
30°-40°	1703.3	16.0
40°-50°	1815.5	17.1
50°-60°	1735.8	16.4
60°-70°	1470.4	13.9
70°-80°	988.2	9.3
80°-90°	278.8	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°	2621.2	24.7
0°-40°	4324.4	40.7
0°-60°	7875.7	74.2
0°-90°	10613.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10613.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3338	3338	3338	3338	3338	
5°	3338	3332	3317	3332	3332	317
15°	3222	3222	3217	3243	3238	908
25°	2990	3001	3022	3048	3053	1378
35°	2653	2674	2716	2769	2779	1662
45°	2227	2264	2343	2443	2484	1718
55°	1721	1784	1942	2095	2169	1533
65°	1137	1253	1511	1711	1790	1129
75°	537	732	1021	1195	1232	575
85°	105	216	263	284	295	130
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3337.7	3337.7	3337.7	3337.7	3337.7
2.5°	3343.0	3343.0	3327.2	3337.7	3337.7
5°	3337.7	3332.4	3316.6	3332.4	3332.4
7.5°	3321.9	3316.6	3306.1	3321.9	3316.6
10°	3290.3	3290.3	3279.8	3295.6	3295.6
12.5°	3264.0	3258.7	3253.4	3274.5	3269.2
15°	3221.8	3221.8	3216.6	3242.9	3237.6
17.5°	3169.2	3174.4	3179.7	3200.8	3206.0
20°	3111.2	3121.8	3127.0	3158.6	3158.6
22.5°	3058.6	3063.8	3074.4	3106.0	3106.0
25°	2990.1	3000.6	3021.7	3048.0	3053.3
27.5°	2921.6	2926.9	2953.2	2990.1	2995.4
30°	2832.1	2847.9	2879.5	2921.6	2926.9
32.5°	2753.1	2768.9	2805.7	2847.9	2858.4
35°	2653.0	2674.1	2716.2	2768.9	2779.4
37.5°	2563.5	2579.3	2631.9	2689.9	2705.7
40°	2453.4	2484.5	2537.1	2605.6	2631.9
42.5°	2342.8	2374.4	2437.6	2526.6	2558.2
45°	2226.9	2263.8	2342.8	2442.8	2484.5
47.5°	2111.0	2153.2	2242.7	2358.6	2406.0
50°	1979.3	2032.0	2142.6	2274.3	2327.0
52.5°	1852.9	1916.1	2037.3	2184.8	2253.2
55°	1721.3	1784.5	1942.5	2095.2	2169.0
57.5°	1573.8	1658.1	1831.9	2005.7	2084.7
60°	1437.4	1515.8	1726.5	1916.1	1995.1
62.5°	1289.9	1395.2	1621.2	1821.3	1900.3
65°	1137.1	1253.0	1510.6	1710.7	1789.7
67.5°	1000.2	1126.6	1400.5	1600.1	1679.1
70°	836.9	994.9	1279.4	1479.0	1558.0
72.5°	684.2	858.0	1152.9	1347.8	1421.6
75°	536.7	731.6	1021.3	1195.1	1232.0
77.5°	400.3	605.2	884.3	958.1	931.7
80°	284.4	484.6	689.5	652.6	668.4
82.5°	184.3	368.7	426.6	484.6	499.8
85°	105.3	215.9	263.4	284.4	295.0
87.5°	47.4	79.0	105.3	105.3	100.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)