

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: P474205

Luminaire Tested: **24CZ2-155VHE-RDP-UNV-L830-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474205  
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-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: 10050.8 lumens  
Efficiency: N/A  
Efficacy: 88.2 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

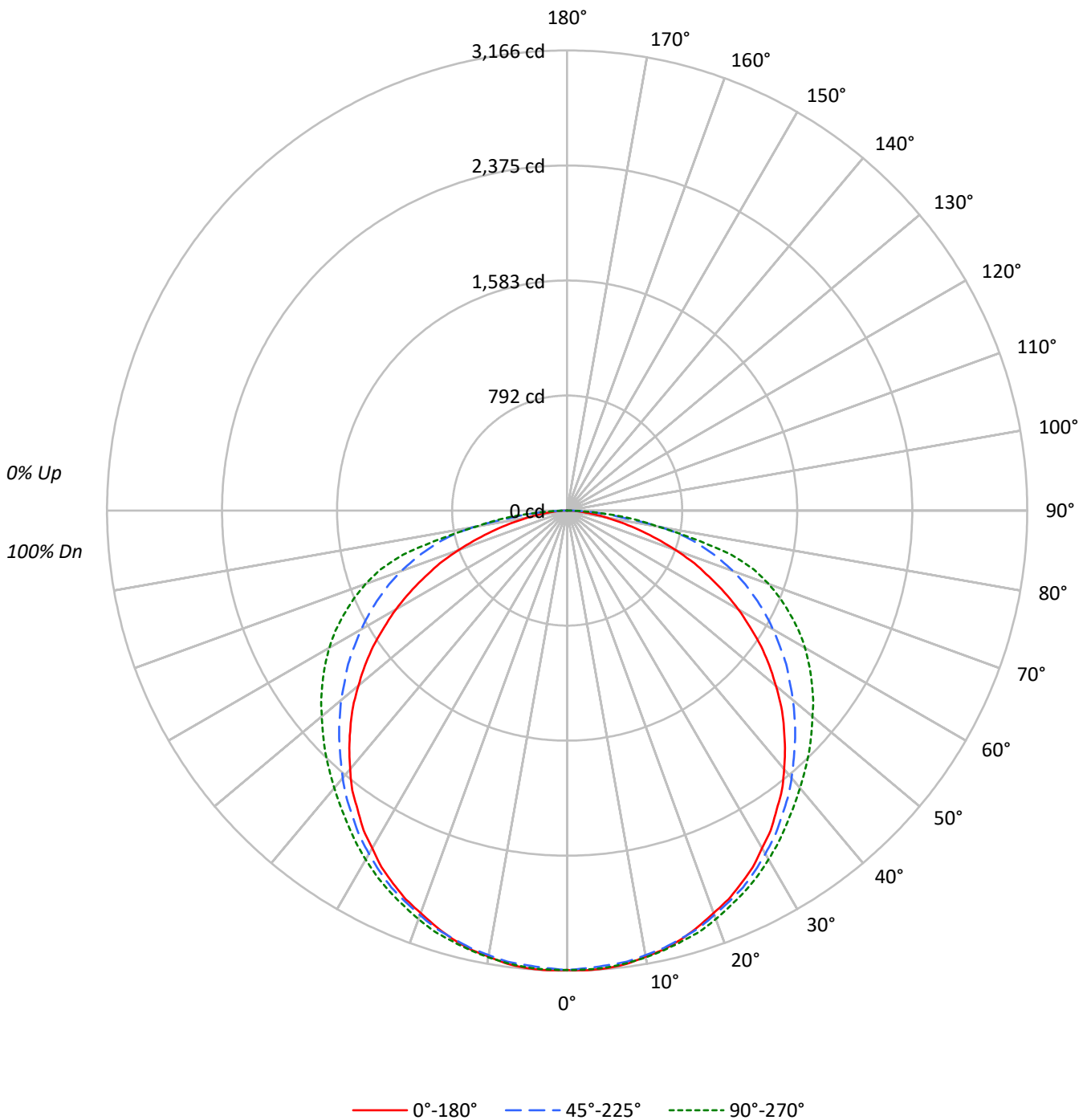
Input Watts (W): 114  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4253	4253	4253
5°	4269	4242	4262
10°	4257	4244	4264
15°	4250	4243	4271
20°	4219	4240	4283
25°	4204	4248	4293
30°	4167	4237	4306
35°	4127	4225	4323
40°	4081	4220	4378
45°	4013	4222	4477
50°	3924	4247	4613
55°	3824	4315	4818
60°	3663	4400	5084
65°	3429	4554	5396
70°	3118	4766	5804
75°	2642	5028	6065
80°	2087	5059	4905
85°	1541	3850	4312



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	299.8	3.0
10°-20°	862.9	8.6
20°-30°	1319.5	13.1
30°-40°	1613.0	16.0
40°-50°	1719.3	17.1
50°-60°	1643.8	16.4
60°-70°	1392.5	13.9
70°-80°	935.9	9.3
80°-90°	264.1	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°	2482.3	24.7
0°-40°	4095.3	40.7
0°-60°	7458.3	74.2
0°-90°	10050.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10050.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3161	3161	3161	3161	3161	
5°	3161	3156	3141	3156	3156	300
15°	3051	3051	3046	3071	3066	860
25°	2832	2842	2862	2886	2892	1305
35°	2512	2532	2572	2622	2632	1574
45°	2109	2144	2219	2313	2353	1627
55°	1630	1690	1840	1984	2054	1452
65°	1077	1187	1430	1620	1695	1069
75°	508	693	967	1132	1167	544
85°	100	204	249	269	279	123
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3160.8	3160.8	3160.8	3160.8	3160.8
2.5°	3165.8	3165.8	3150.9	3160.8	3160.8
5°	3160.8	3155.8	3140.9	3155.8	3155.8
7.5°	3145.9	3140.9	3130.9	3145.9	3140.9
10°	3115.9	3115.9	3106.0	3120.9	3120.9
12.5°	3091.0	3086.0	3081.0	3101.0	3096.0
15°	3051.1	3051.1	3046.1	3071.1	3066.1
17.5°	3001.2	3006.2	3011.2	3031.1	3036.1
20°	2946.4	2956.3	2961.3	2991.2	2991.2
22.5°	2896.5	2901.5	2911.4	2941.4	2941.4
25°	2831.6	2841.6	2861.6	2886.5	2891.5
27.5°	2766.8	2771.8	2796.7	2831.6	2836.6
30°	2682.0	2697.0	2726.9	2766.8	2771.8
32.5°	2607.2	2622.1	2657.1	2697.0	2706.9
35°	2512.4	2532.4	2572.3	2622.1	2632.1
37.5°	2427.6	2442.6	2492.5	2547.3	2562.3
40°	2323.4	2352.8	2402.7	2467.5	2492.5
42.5°	2218.6	2248.5	2308.4	2392.7	2422.6
45°	2108.9	2143.8	2218.6	2313.4	2352.8
47.5°	1999.2	2039.1	2123.8	2233.6	2278.5
50°	1874.5	1924.3	2029.1	2153.8	2203.7
52.5°	1754.7	1814.6	1929.3	2069.0	2133.8
55°	1630.0	1689.9	1839.5	1984.2	2054.0
57.5°	1490.4	1570.2	1734.8	1899.4	1974.2
60°	1361.2	1435.5	1635.0	1814.6	1889.4
62.5°	1221.5	1321.3	1535.3	1724.8	1799.6
65°	1076.9	1186.6	1430.5	1620.1	1694.9
67.5°	947.2	1066.9	1326.3	1515.3	1590.1
70°	792.6	942.2	1211.6	1400.6	1475.4
72.5°	647.9	812.5	1091.9	1276.4	1346.2
75°	508.3	692.8	967.2	1131.8	1166.7
77.5°	379.1	573.1	837.5	907.3	882.4
80°	269.3	458.9	652.9	618.0	633.0
82.5°	174.6	349.2	404.0	458.9	473.4
85°	99.8	204.5	249.4	269.3	279.3
87.5°	44.9	74.8	99.8	99.8	94.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)