

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: P474245

Luminaire Tested: **24CZ2-105VHE-RDP-UNV-L835-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474245  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-105VHE-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: 7088.7 lumens  
Efficiency: N/A  
Efficacy: 93.6 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

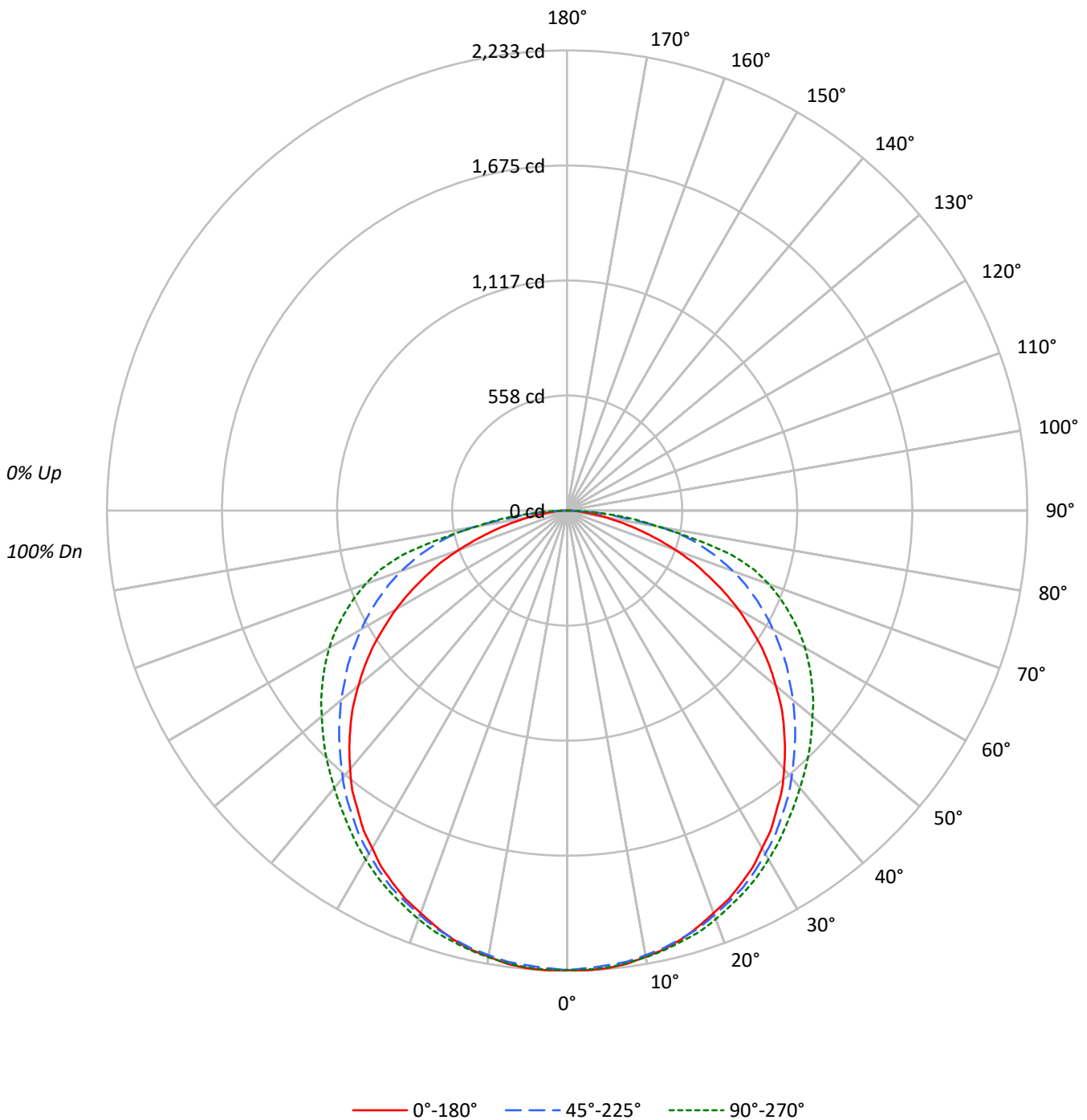
Input Watts (W): 75.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P474245

CATALOG NUMBER: 24CZ2-105VHE-RDP-UNV-L835-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P474245

CATALOG NUMBER: 24CZ2-105VHE-RDP-UNV-L835-CD1-U

**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°	2999	2999	2999
5°	3011	2992	3006
10°	3002	2993	3007
15°	2997	2993	3012
20°	2975	2991	3021
25°	2965	2996	3028
30°	2939	2988	3037
35°	2911	2980	3049
40°	2878	2976	3088
45°	2830	2978	3158
50°	2767	2996	3253
55°	2697	3043	3398
60°	2583	3103	3586
65°	2418	3212	3806
70°	2199	3362	4094
75°	1864	3546	4277
80°	1472	3568	3459
85°	1087	2716	3041



TEST NUMBER: P474245

CATALOG NUMBER: 24CZ2-105VHE-RDP-UNV-L835-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	211.5	3.0
10°-20°	608.6	8.6
20°-30°	930.6	13.1
30°-40°	1137.6	16.0
40°-50°	1212.6	17.1
50°-60°	1159.3	16.4
60°-70°	982.1	13.9
70°-80°	660.1	9.3
80°-90°	186.3	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°	1750.7	24.7
0°-40°	2888.3	40.7
0°-60°	5260.3	74.2
0°-90°	7088.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7088.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2229	2229	2229	2229	2229	
5°	2229	2226	2215	2226	2226	212
15°	2152	2152	2148	2166	2162	607
25°	1997	2004	2018	2036	2039	920
35°	1772	1786	1814	1849	1856	1110
45°	1487	1512	1565	1632	1659	1147
55°	1150	1192	1297	1399	1449	1024
65°	760	837	1009	1143	1195	754
75°	358	489	682	798	823	384
85°	70	144	176	190	197	87
90°	0	0	0	0	0	



TEST NUMBER: P474245

CATALOG NUMBER: 24CZ2-105VHE-RDP-UNV-L835-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2229.3	2229.3	2229.3	2229.3	2229.3
2.5°	2232.8	2232.8	2222.3	2229.3	2229.3
5°	2229.3	2225.8	2215.2	2225.8	2225.8
7.5°	2218.7	2215.2	2208.2	2218.7	2215.2
10°	2197.6	2197.6	2190.6	2201.2	2201.2
12.5°	2180.1	2176.5	2173.0	2187.1	2183.6
15°	2151.9	2151.9	2148.4	2166.0	2162.5
17.5°	2116.7	2120.2	2123.8	2137.8	2141.4
20°	2078.0	2085.1	2088.6	2109.7	2109.7
22.5°	2042.9	2046.4	2053.4	2074.5	2074.5
25°	1997.1	2004.2	2018.2	2035.8	2039.3
27.5°	1951.4	1954.9	1972.5	1997.1	2000.6
30°	1891.6	1902.1	1923.2	1951.4	1954.9
32.5°	1838.8	1849.4	1874.0	1902.1	1909.2
35°	1772.0	1786.0	1814.2	1849.4	1856.4
37.5°	1712.2	1722.7	1757.9	1796.6	1807.2
40°	1638.6	1659.4	1694.6	1740.3	1757.9
42.5°	1564.8	1585.9	1628.1	1687.5	1708.7
45°	1487.4	1512.0	1564.8	1631.6	1659.4
47.5°	1410.0	1438.1	1497.9	1575.3	1607.0
50°	1322.0	1357.2	1431.1	1519.0	1554.2
52.5°	1237.6	1279.8	1360.7	1459.2	1505.0
55°	1149.7	1191.9	1297.4	1399.4	1448.7
57.5°	1051.2	1107.4	1223.5	1339.6	1392.4
60°	960.0	1012.5	1153.2	1279.8	1332.6
62.5°	861.5	931.9	1082.8	1216.5	1269.3
65°	759.5	836.9	1008.9	1142.6	1195.4
67.5°	668.1	752.5	935.4	1068.7	1121.5
70°	559.0	664.5	854.5	987.8	1040.6
72.5°	457.0	573.1	770.1	900.2	949.5
75°	358.5	488.6	682.1	798.2	822.8
77.5°	267.4	404.2	590.7	639.9	622.3
80°	190.0	323.6	460.5	435.9	446.4
82.5°	123.1	246.3	285.0	323.6	333.9
85°	70.4	144.2	175.9	190.0	197.0
87.5°	31.7	52.8	70.4	70.4	66.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)