

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: P474447

Luminaire Tested: **24CZ2-115VHE-HRP-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474447
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-115VHE-HRP-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ HRP
INSERT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9324.5 lumens
Efficiency: N/A
Efficacy: 115.7 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

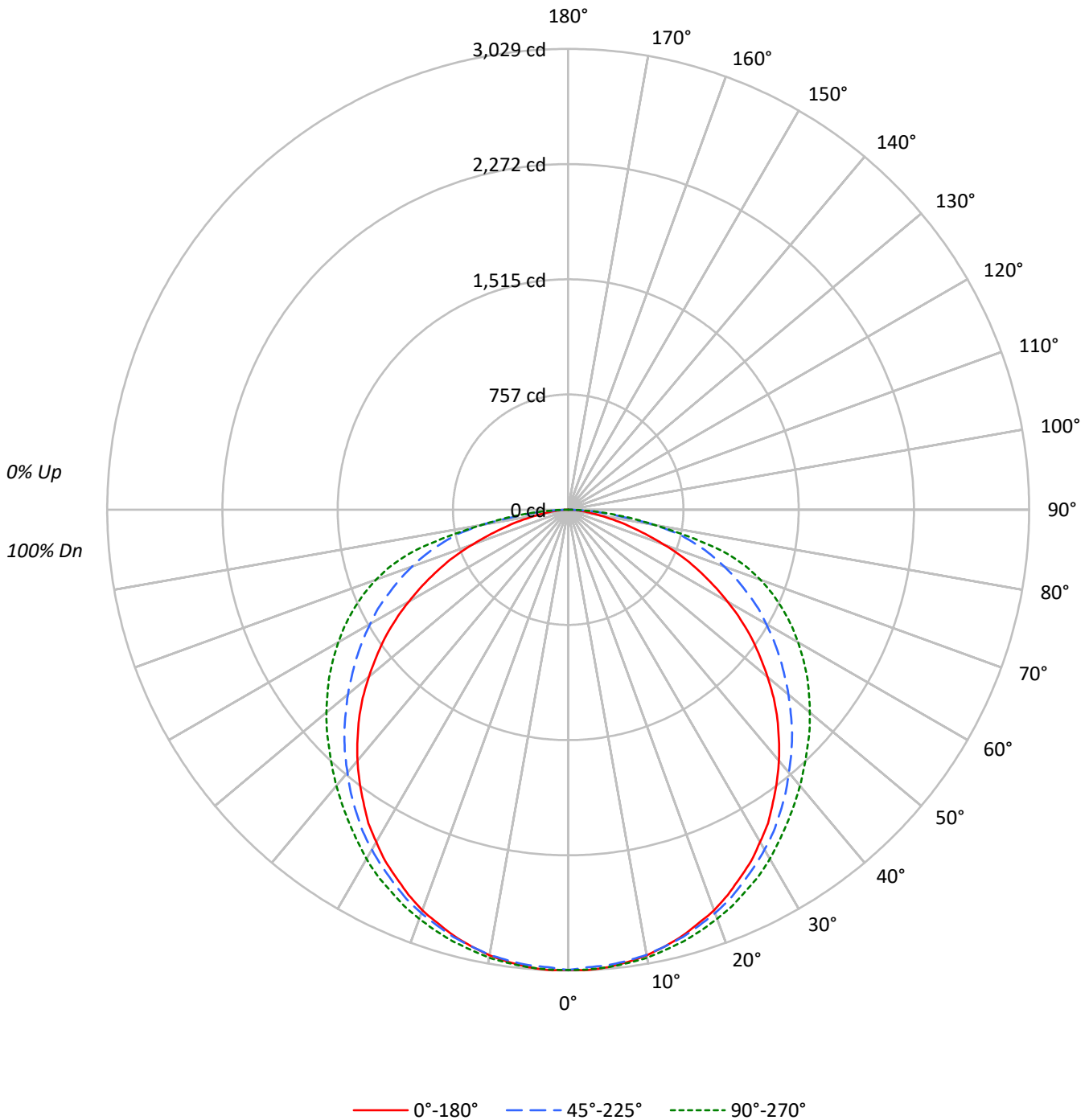
Input Watts (W): 80.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P474447

CATALOG NUMBER: 24CZ2-115VHE-HRP-UNV-L835-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P474447

CATALOG NUMBER: 24CZ2-115VHE-HRP-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	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4071	4071	4071
5°	4076	4060	4076
10°	4064	4059	4085
15°	4040	4051	4089
20°	4013	4041	4097
25°	3964	4022	4103
30°	3918	4009	4118
35°	3854	3988	4123
40°	3785	3963	4162
45°	3699	3959	4227
50°	3579	3955	4339
55°	3452	3983	4496
60°	3256	4044	4695
65°	3008	4139	4959
70°	2626	4284	5283
75°	2131	4505	5459
80°	1574	4417	4417
85°	1206	3253	3674



TEST NUMBER: P474447

CATALOG NUMBER: 24CZ2-115VHE-HRP-UNV-L835-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	286.6	3.1
10°-20°	823.0	8.8
20°-30°	1252.9	13.4
30°-40°	1521.3	16.3
40°-50°	1607.3	17.2
50°-60°	1516.6	16.3
60°-70°	1261.0	13.5
70°-80°	829.6	8.9
80°-90°	226.1	2.4
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°	2362.5	25.3
0°-40°	3883.8	41.7
0°-60°	7007.7	75.2
0°-90°	9324.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9324.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3025	3025	3025	3025	3025	
5°	3018	3018	3006	3018	3018	287
15°	2900	2904	2908	2936	2936	818
25°	2670	2686	2709	2756	2764	1232
35°	2346	2373	2428	2490	2510	1469
45°	1944	1983	2081	2182	2221	1497
55°	1472	1534	1698	1858	1917	1311
65°	945	1054	1300	1491	1558	934
75°	410	597	867	1026	1050	442
85°	78	172	211	234	238	96
90°	0	0	0	0	0	



TEST NUMBER: P474447

CATALOG NUMBER: 24CZ2-115VHE-HRP-UNV-L835-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3025.3	3025.3	3025.3	3025.3	3025.3
2.5°	3029.3	3025.3	3009.7	3025.3	3025.3
5°	3017.7	3017.7	3005.7	3017.7	3017.7
7.5°	2998.1	2998.1	2990.0	3005.7	3005.7
10°	2974.4	2974.4	2970.8	2990.0	2990.0
12.5°	2939.6	2943.2	2939.6	2962.8	2962.8
15°	2900.3	2904.3	2908.3	2935.6	2935.6
17.5°	2849.8	2857.4	2865.4	2896.3	2900.3
20°	2802.9	2806.5	2822.2	2857.4	2861.4
22.5°	2740.4	2752.1	2771.7	2806.5	2818.6
25°	2669.9	2685.5	2709.2	2756.1	2763.7
27.5°	2603.8	2615.4	2646.7	2697.6	2713.2
30°	2521.7	2541.3	2580.2	2631.1	2650.7
32.5°	2443.6	2463.2	2510.1	2564.6	2580.2
35°	2346.2	2373.4	2427.9	2490.4	2510.1
37.5°	2252.4	2279.7	2346.2	2416.3	2440.0
40°	2154.7	2185.9	2256.5	2338.2	2369.4
42.5°	2049.3	2092.2	2170.3	2260.1	2295.3
45°	1943.9	1983.2	2080.6	2181.9	2221.2
47.5°	1831.0	1877.8	1983.2	2104.2	2151.1
50°	1710.0	1768.5	1889.5	2022.1	2073.0
52.5°	1589.0	1655.1	1791.7	1939.9	1994.8
55°	1471.6	1534.1	1698.0	1858.2	1916.7
57.5°	1343.0	1421.1	1600.6	1772.1	1831.0
60°	1210.0	1296.1	1502.8	1682.3	1744.8
62.5°	1077.3	1175.1	1409.1	1589.0	1655.1
65°	944.7	1054.1	1300.1	1491.2	1557.7
67.5°	815.7	936.7	1198.3	1389.9	1456.0
70°	667.5	819.7	1089.0	1276.5	1343.0
72.5°	530.9	706.7	983.6	1159.5	1218.0
75°	409.9	597.4	866.6	1026.5	1050.1
77.5°	300.5	488.0	745.6	800.1	804.1
80°	203.1	390.2	570.1	562.1	570.1
82.5°	132.6	292.9	359.0	402.3	405.9
85°	78.1	171.9	210.7	234.4	238.0
87.5°	38.9	58.5	74.1	78.1	85.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)