

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: P474399

Luminaire Tested: **24CZ2-125VHE-HRP-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474399
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-125VHE-HRP-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ HRP
INSERT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9726.7 lumens
Efficiency: N/A
Efficacy: 110.8 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

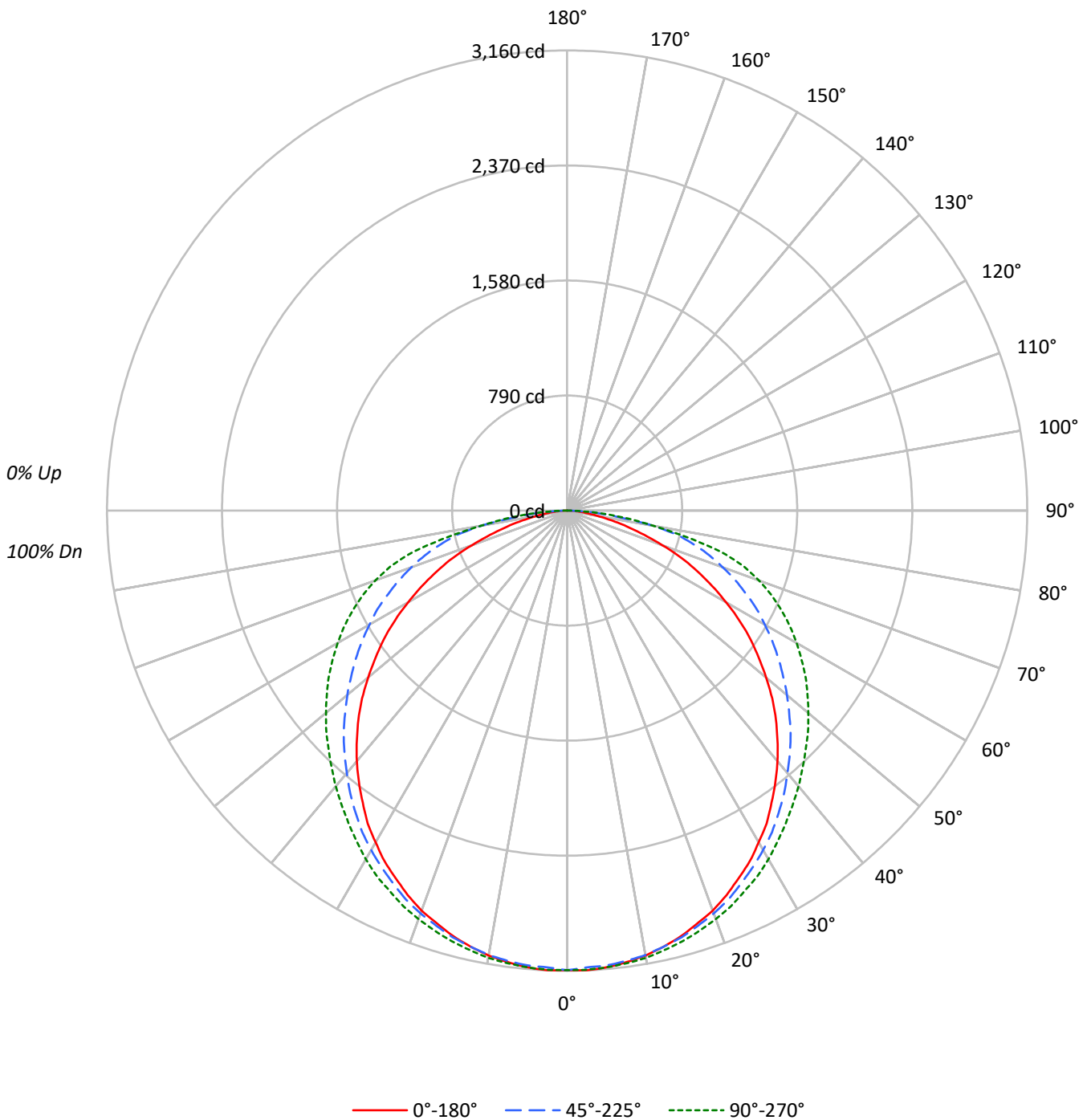
Input Watts (W): 87.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P474399

CATALOG NUMBER: 24CZ2-125VHE-HRP-UNV-L830-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P474399

CATALOG NUMBER: 24CZ2-125VHE-HRP-UNV-L830-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°	4246	4246	4246
5°	4252	4235	4252
10°	4239	4234	4261
15°	4214	4226	4266
20°	4187	4215	4274
25°	4135	4196	4280
30°	4087	4182	4296
35°	4020	4160	4301
40°	3948	4134	4341
45°	3859	4130	4409
50°	3734	4126	4526
55°	3601	4155	4690
60°	3397	4219	4898
65°	3138	4318	5173
70°	2739	4469	5511
75°	2222	4700	5695
80°	1642	4608	4608
85°	1258	3393	3833



TEST NUMBER: P474399

CATALOG NUMBER: 24CZ2-125VHE-HRP-UNV-L830-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	298.9	3.1
10°-20°	858.5	8.8
20°-30°	1307.0	13.4
30°-40°	1586.9	16.3
40°-50°	1676.6	17.2
50°-60°	1582.1	16.3
60°-70°	1315.4	13.5
70°-80°	865.4	8.9
80°-90°	235.9	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°	2464.4	25.3
0°-40°	4051.3	41.7
0°-60°	7310.0	75.2
0°-90°	9726.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9726.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3156	3156	3156	3156	3156	
5°	3148	3148	3135	3148	3148	299
15°	3025	3030	3034	3062	3062	853
25°	2785	2801	2826	2875	2883	1285
35°	2447	2476	2533	2598	2618	1532
45°	2028	2069	2170	2276	2317	1562
55°	1535	1600	1771	1938	1999	1367
65°	986	1100	1356	1556	1625	974
75°	428	623	904	1071	1095	461
85°	82	179	220	244	248	100
90°	0	0	0	0	0	



TEST NUMBER: P474399

CATALOG NUMBER: 24CZ2-125VHE-HRP-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3155.8	3155.8	3155.8	3155.8	3155.8
2.5°	3160.0	3155.8	3139.5	3155.8	3155.8
5°	3147.9	3147.9	3135.3	3147.9	3147.9
7.5°	3127.4	3127.4	3119.0	3135.3	3135.3
10°	3102.7	3102.7	3099.0	3119.0	3119.0
12.5°	3066.4	3070.1	3066.4	3090.6	3090.6
15°	3025.4	3029.6	3033.8	3062.2	3062.2
17.5°	2972.8	2980.7	2989.1	3021.2	3025.4
20°	2923.9	2927.6	2943.9	2980.7	2984.9
22.5°	2858.7	2870.8	2891.3	2927.6	2940.2
25°	2785.1	2801.4	2826.1	2875.0	2882.9
27.5°	2716.1	2728.3	2760.9	2813.9	2830.2
30°	2630.5	2650.9	2691.5	2744.6	2765.0
32.5°	2549.0	2569.4	2618.3	2675.2	2691.5
35°	2447.4	2475.8	2532.7	2597.9	2618.3
37.5°	2349.6	2378.0	2447.4	2520.6	2545.2
40°	2247.6	2280.2	2353.8	2439.1	2471.7
42.5°	2137.7	2182.4	2263.9	2357.6	2394.3
45°	2027.8	2068.8	2170.3	2276.1	2317.0
47.5°	1910.0	1958.8	2068.8	2195.0	2243.9
50°	1783.7	1844.8	1971.0	2109.3	2162.4
52.5°	1657.5	1726.5	1869.0	2023.6	2080.9
55°	1535.1	1600.3	1771.2	1938.4	1999.4
57.5°	1400.9	1482.4	1669.6	1848.5	1910.0
60°	1262.2	1352.0	1567.7	1754.9	1820.1
62.5°	1123.8	1225.8	1469.9	1657.5	1726.5
65°	985.5	1099.6	1356.2	1555.5	1624.9
67.5°	850.9	977.1	1250.0	1449.8	1518.8
70°	696.3	855.1	1135.9	1331.5	1400.9
72.5°	553.8	737.2	1026.0	1209.5	1270.5
75°	427.5	623.1	904.0	1070.7	1095.4
77.5°	313.4	509.0	777.8	834.6	838.8
80°	211.9	407.1	594.7	586.4	594.7
82.5°	138.3	305.5	374.5	419.6	423.4
85°	81.5	179.3	219.8	244.5	248.3
87.5°	40.5	61.0	77.3	81.5	89.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)