

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: P474400

Luminaire Tested: **24CZ2-130VHE-HRP-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474400
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-130VHE-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: 10173.8 lumens
Efficiency: N/A
Efficacy: 110.3 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

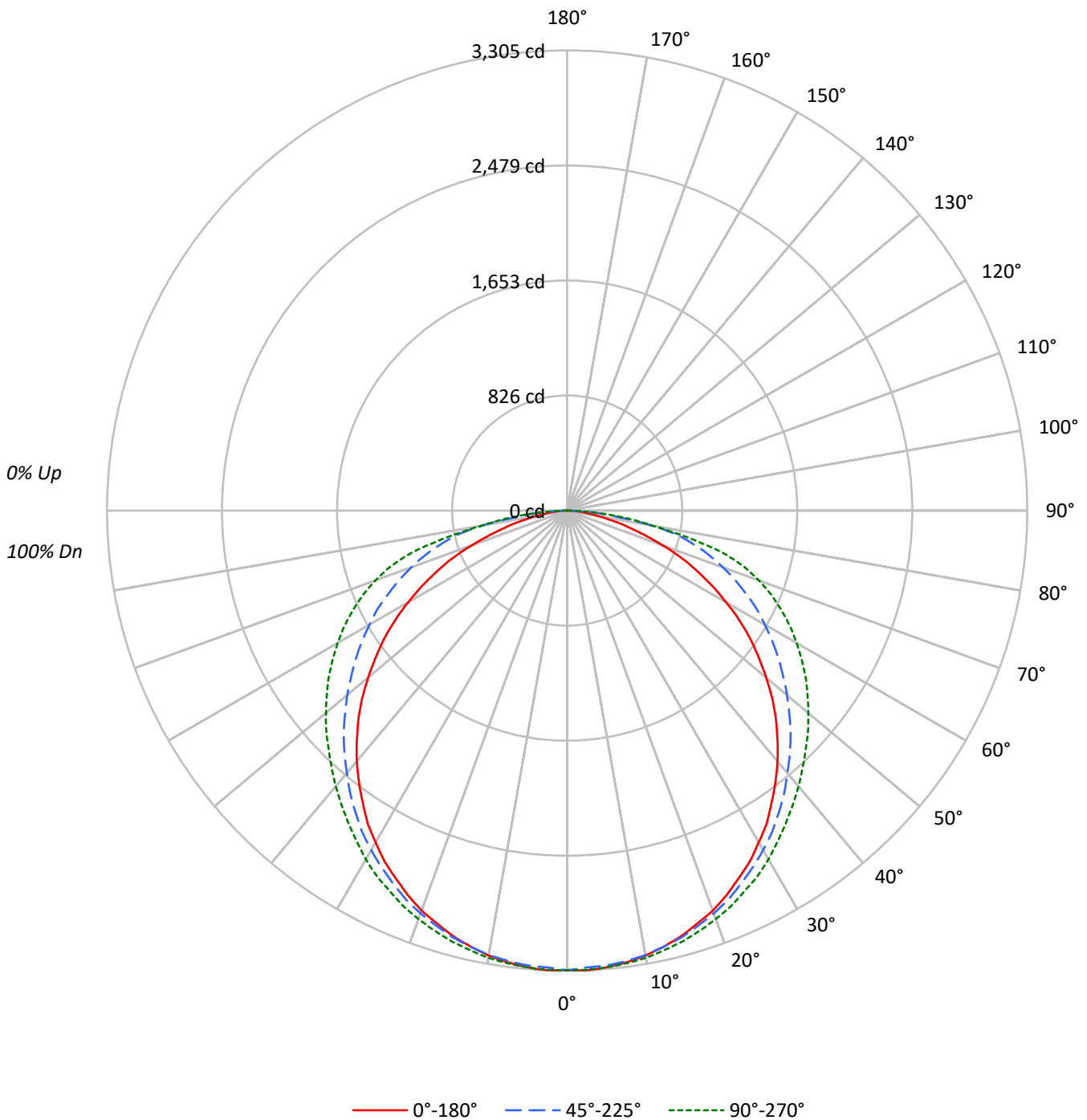
Input Watts (W): 92.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P474400

CATALOG NUMBER: 24CZ2-130VHE-HRP-UNV-L830-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P474400

CATALOG NUMBER: 24CZ2-130VHE-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°	4441	4441	4441
5°	4447	4429	4447
10°	4434	4429	4457
15°	4408	4420	4462
20°	4379	4409	4470
25°	4325	4388	4477
30°	4275	4374	4493
35°	4205	4351	4498
40°	4129	4324	4541
45°	4036	4320	4611
50°	3905	4315	4734
55°	3766	4346	4906
60°	3553	4412	5123
65°	3282	4516	5411
70°	2865	4674	5764
75°	2325	4915	5957
80°	1717	4820	4820
85°	1315	3549	4009



TEST NUMBER: P474400

CATALOG NUMBER: 24CZ2-130VHE-HRP-UNV-L830-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	312.7	3.1
10°-20°	898.0	8.8
20°-30°	1367.0	13.4
30°-40°	1659.9	16.3
40°-50°	1753.7	17.2
50°-60°	1654.8	16.3
60°-70°	1375.9	13.5
70°-80°	905.2	8.9
80°-90°	246.7	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°	2577.7	25.3
0°-40°	4237.6	41.7
0°-60°	7646.0	75.2
0°-90°	10173.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10173.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3301	3301	3301	3301	3301	
5°	3293	3293	3280	3293	3293	313
15°	3164	3169	3173	3203	3203	893
25°	2913	2930	2956	3007	3015	1344
35°	2560	2590	2649	2717	2739	1602
45°	2121	2164	2270	2381	2424	1633
55°	1606	1674	1853	2028	2091	1430
65°	1031	1150	1418	1627	1700	1019
75°	447	652	946	1120	1146	482
85°	85	188	230	256	260	104
90°	0	0	0	0	0	



TEST NUMBER: P474400

CATALOG NUMBER: 24CZ2-130VHE-HRP-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3300.9	3300.9	3300.9	3300.9	3300.9
2.5°	3305.3	3300.9	3283.8	3300.9	3300.9
5°	3292.6	3292.6	3279.5	3292.6	3292.6
7.5°	3271.2	3271.2	3262.4	3279.5	3279.5
10°	3245.4	3245.4	3241.4	3262.4	3262.4
12.5°	3207.3	3211.3	3207.3	3232.7	3232.7
15°	3164.5	3168.9	3173.2	3203.0	3203.0
17.5°	3109.4	3117.7	3126.5	3160.1	3164.5
20°	3058.3	3062.2	3079.3	3117.7	3122.1
22.5°	2990.1	3002.8	3024.2	3062.2	3075.3
25°	2913.1	2930.2	2956.0	3007.1	3015.4
27.5°	2841.0	2853.7	2887.8	2943.3	2960.4
30°	2751.4	2772.8	2815.2	2870.7	2892.2
32.5°	2666.2	2687.6	2738.7	2798.2	2815.2
35°	2559.9	2589.7	2649.1	2717.3	2738.7
37.5°	2457.6	2487.4	2559.9	2636.4	2662.2
40°	2351.0	2385.1	2462.0	2551.2	2585.3
42.5°	2236.0	2282.8	2368.0	2465.9	2504.4
45°	2121.0	2163.9	2270.1	2380.7	2423.5
47.5°	1997.8	2048.9	2163.9	2295.9	2347.0
50°	1865.7	1929.6	2061.6	2206.3	2261.8
52.5°	1733.7	1805.9	1954.9	2116.7	2176.6
55°	1605.6	1673.8	1852.6	2027.5	2091.3
57.5°	1465.3	1550.6	1746.4	1933.5	1997.8
60°	1320.2	1414.2	1639.7	1835.6	1903.8
62.5°	1175.5	1282.1	1537.4	1733.7	1805.9
65°	1030.8	1150.1	1418.5	1627.1	1699.6
67.5°	890.0	1022.0	1307.5	1516.5	1588.6
70°	728.3	894.4	1188.2	1392.7	1465.3
72.5°	579.2	771.1	1073.2	1265.1	1328.9
75°	447.2	651.8	945.5	1120.0	1145.8
77.5°	327.9	532.4	813.5	873.0	877.4
80°	221.6	425.8	622.1	613.3	622.1
82.5°	144.7	319.6	391.7	438.9	442.8
85°	85.2	187.5	229.9	255.7	259.7
87.5°	42.4	63.8	80.9	85.2	93.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)