

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: P474389

Luminaire Tested: **24CZ2-75VHE-HRP-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474389
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-75VHE-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: 5854.6 lumens
Efficiency: N/A
Efficacy: 113.9 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

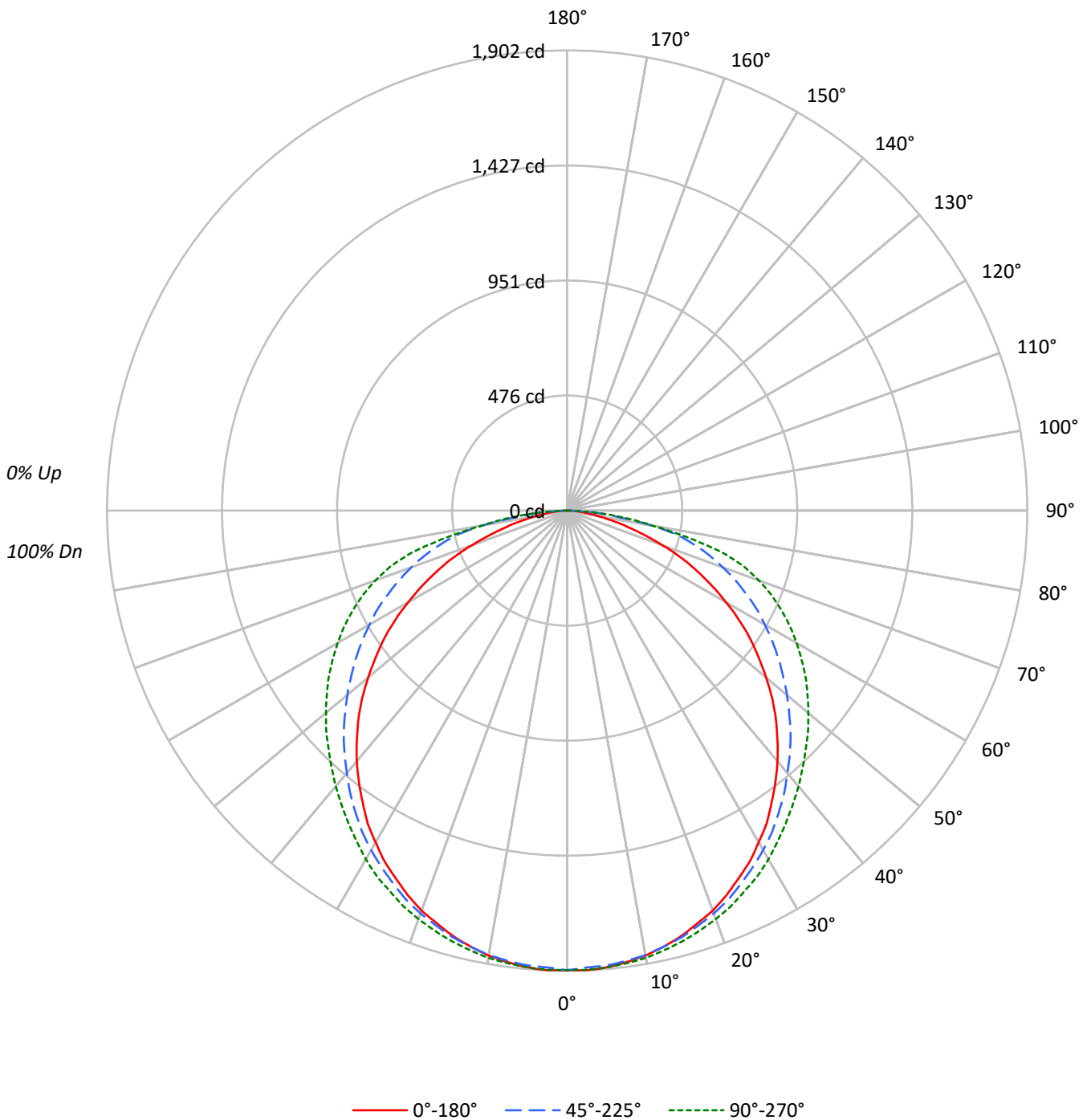
Input Watts (W): 51.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P474389

CATALOG NUMBER: 24CZ2-75VHE-HRP-UNV-L830-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P474389

CATALOG NUMBER: 24CZ2-75VHE-HRP-UNV-L830-CD1-U

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2556	2556	2556
5°	2559	2549	2559
10°	2552	2548	2565
15°	2537	2544	2567
20°	2520	2537	2572
25°	2489	2525	2576
30°	2460	2517	2586
35°	2420	2504	2589
40°	2376	2488	2613
45°	2323	2486	2654
50°	2247	2483	2725
55°	2168	2501	2823
60°	2044	2539	2948
65°	1889	2599	3114
70°	1649	2690	3317
75°	1338	2829	3427
80°	988	2774	2774
85°	758	2042	2306



TEST NUMBER: P474389

CATALOG NUMBER: 24CZ2-75VHE-HRP-UNV-L830-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.9	3.1
10°-20°	516.7	8.8
20°-30°	786.7	13.4
30°-40°	955.2	16.3
40°-50°	1009.2	17.2
50°-60°	952.3	16.3
60°-70°	791.8	13.5
70°-80°	520.9	8.9
80°-90°	142.0	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°	1483.3	25.3
0°-40°	2438.5	41.7
0°-60°	4400.0	75.2
0°-90°	5854.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5854.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1900	1900	1900	1900	1900	
5°	1895	1895	1887	1895	1895	180
15°	1821	1824	1826	1843	1843	514
25°	1676	1686	1701	1730	1735	773
35°	1473	1490	1524	1564	1576	922
45°	1221	1245	1306	1370	1395	940
55°	924	963	1066	1167	1204	823
65°	593	662	816	936	978	586
75°	257	375	544	644	659	277
85°	49	108	132	147	149	60
90°	0	0	0	0	0	



TEST NUMBER: P474389

CATALOG NUMBER: 24CZ2-75VHE-HRP-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1899.5	1899.5	1899.5	1899.5	1899.5
2.5°	1902.0	1899.5	1889.7	1899.5	1899.5
5°	1894.7	1894.7	1887.2	1894.7	1894.7
7.5°	1882.4	1882.4	1877.4	1887.2	1887.2
10°	1867.6	1867.6	1865.3	1877.4	1877.4
12.5°	1845.7	1848.0	1845.7	1860.3	1860.3
15°	1821.0	1823.6	1826.1	1843.2	1843.2
17.5°	1789.3	1794.1	1799.1	1818.5	1821.0
20°	1759.9	1762.2	1772.0	1794.1	1796.6
22.5°	1720.7	1728.0	1740.3	1762.2	1769.7
25°	1676.4	1686.2	1701.0	1730.5	1735.3
27.5°	1634.9	1642.2	1661.8	1693.7	1703.6
30°	1583.3	1595.6	1620.0	1652.0	1664.3
32.5°	1534.3	1546.6	1576.0	1610.2	1620.0
35°	1473.1	1490.2	1524.4	1563.7	1576.0
37.5°	1414.3	1431.4	1473.1	1517.2	1532.0
40°	1352.9	1372.5	1416.8	1468.1	1487.7
42.5°	1286.7	1313.6	1362.7	1419.0	1441.2
45°	1220.6	1245.2	1306.3	1370.0	1394.6
47.5°	1149.6	1179.1	1245.2	1321.2	1350.6
50°	1073.7	1110.4	1186.4	1269.6	1301.6
52.5°	997.7	1039.2	1125.0	1218.0	1252.5
55°	924.0	963.2	1066.1	1166.7	1203.5
57.5°	843.2	892.3	1005.0	1112.6	1149.6
60°	759.7	813.8	943.6	1056.3	1095.5
62.5°	676.4	737.8	884.7	997.7	1039.2
65°	593.2	661.9	816.3	936.3	978.1
67.5°	512.2	588.1	752.4	872.7	914.2
70°	419.1	514.7	683.7	801.5	843.2
72.5°	333.3	443.7	617.6	728.0	764.7
75°	257.3	375.1	544.1	644.5	659.3
77.5°	188.7	306.4	468.2	502.4	504.9
80°	127.5	245.0	358.0	352.9	358.0
82.5°	83.3	183.9	225.4	252.6	254.8
85°	49.1	107.9	132.3	147.2	149.4
87.5°	24.4	36.7	46.5	49.1	53.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)