

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: P474190

Luminaire Tested: **24CZ2-80VHE-RDP-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474190
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-80VHE-RDP-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP
INSERT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5184.7 lumens
Efficiency: N/A
Efficacy: 92.3 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

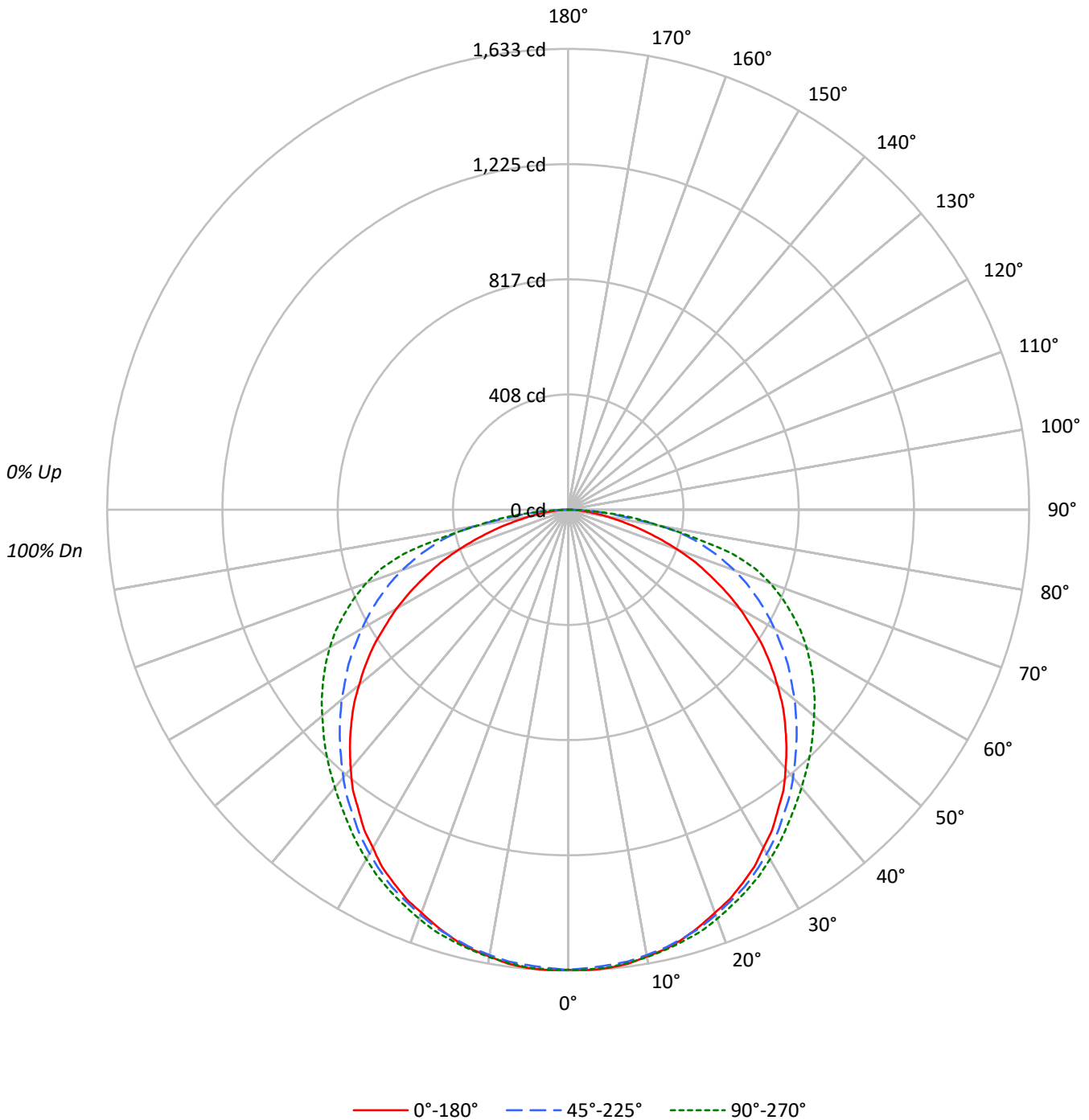
Input Watts (W): 56.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P474190

CATALOG NUMBER: 24CZ2-80VHE-RDP-UNV-L830-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P474190

CATALOG NUMBER: 24CZ2-80VHE-RDP-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	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°	2194	2194	2194
5°	2202	2188	2199
10°	2196	2189	2200
15°	2192	2189	2203
20°	2176	2187	2209
25°	2169	2192	2214
30°	2149	2186	2221
35°	2129	2179	2230
40°	2105	2177	2258
45°	2070	2178	2309
50°	2024	2191	2380
55°	1973	2226	2486
60°	1890	2270	2623
65°	1769	2349	2784
70°	1609	2459	2994
75°	1363	2594	3129
80°	1076	2610	2530
85°	795	1987	2225



TEST NUMBER: P474190

CATALOG NUMBER: 24CZ2-80VHE-RDP-UNV-L830-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.7	3.0
10°-20°	445.1	8.6
20°-30°	680.7	13.1
30°-40°	832.1	16.0
40°-50°	886.9	17.1
50°-60°	848.0	16.4
60°-70°	718.3	13.9
70°-80°	482.8	9.3
80°-90°	136.2	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°	1280.5	24.7
0°-40°	2112.6	40.7
0°-60°	3847.4	74.2
0°-90°	5184.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5184.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1630	1630	1630	1630	1630	
5°	1630	1628	1620	1628	1628	155
15°	1574	1574	1571	1584	1582	444
25°	1461	1466	1476	1489	1492	673
35°	1296	1306	1327	1353	1358	812
45°	1088	1106	1144	1193	1214	839
55°	841	872	949	1024	1060	749
65°	556	612	738	836	874	551
75°	262	357	499	584	602	281
85°	52	106	129	139	144	64
90°	0	0	0	0	0	



TEST NUMBER: P474190

CATALOG NUMBER: 24CZ2-80VHE-RDP-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1630.5	1630.5	1630.5	1630.5	1630.5
2.5°	1633.1	1633.1	1625.4	1630.5	1630.5
5°	1630.5	1628.0	1620.2	1628.0	1628.0
7.5°	1622.8	1620.2	1615.1	1622.8	1620.2
10°	1607.4	1607.4	1602.2	1610.0	1610.0
12.5°	1594.5	1591.9	1589.4	1599.7	1597.1
15°	1573.9	1573.9	1571.4	1584.2	1581.7
17.5°	1548.2	1550.8	1553.3	1563.6	1566.2
20°	1519.9	1525.0	1527.6	1543.1	1543.1
22.5°	1494.2	1496.7	1501.9	1517.3	1517.3
25°	1460.7	1465.9	1476.2	1489.0	1491.6
27.5°	1427.3	1429.8	1442.7	1460.7	1463.3
30°	1383.5	1391.2	1406.7	1427.3	1429.8
32.5°	1344.9	1352.6	1370.7	1391.2	1396.4
35°	1296.0	1306.3	1326.9	1352.6	1357.8
37.5°	1252.3	1260.0	1285.8	1314.1	1321.8
40°	1198.5	1213.7	1239.4	1272.9	1285.8
42.5°	1144.5	1159.9	1190.8	1234.3	1249.7
45°	1087.9	1105.9	1144.5	1193.4	1213.7
47.5°	1031.3	1051.9	1095.6	1152.2	1175.4
50°	967.0	992.7	1046.7	1111.0	1136.8
52.5°	905.2	936.1	995.3	1067.3	1100.7
55°	840.9	871.7	948.9	1023.6	1059.6
57.5°	768.8	810.0	894.9	979.8	1018.4
60°	702.2	740.5	843.4	936.1	974.7
62.5°	630.1	681.6	792.0	889.8	928.4
65°	555.5	612.1	737.9	835.7	874.3
67.5°	488.6	550.4	684.2	781.7	820.3
70°	408.9	486.0	625.0	722.5	761.1
72.5°	334.2	419.1	563.2	658.4	694.5
75°	262.2	357.4	498.9	583.8	601.8
77.5°	195.6	295.6	432.0	468.0	455.2
80°	138.9	236.7	336.8	318.8	326.5
82.5°	90.1	180.1	208.4	236.7	244.2
85°	51.5	105.5	128.7	138.9	144.1
87.5°	23.2	38.6	51.5	51.5	48.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)