

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: P473763

Luminaire Tested: **24CZ2-40-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473763
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-40-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3947.7 lumens
Efficiency: N/A
Efficacy: 124.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

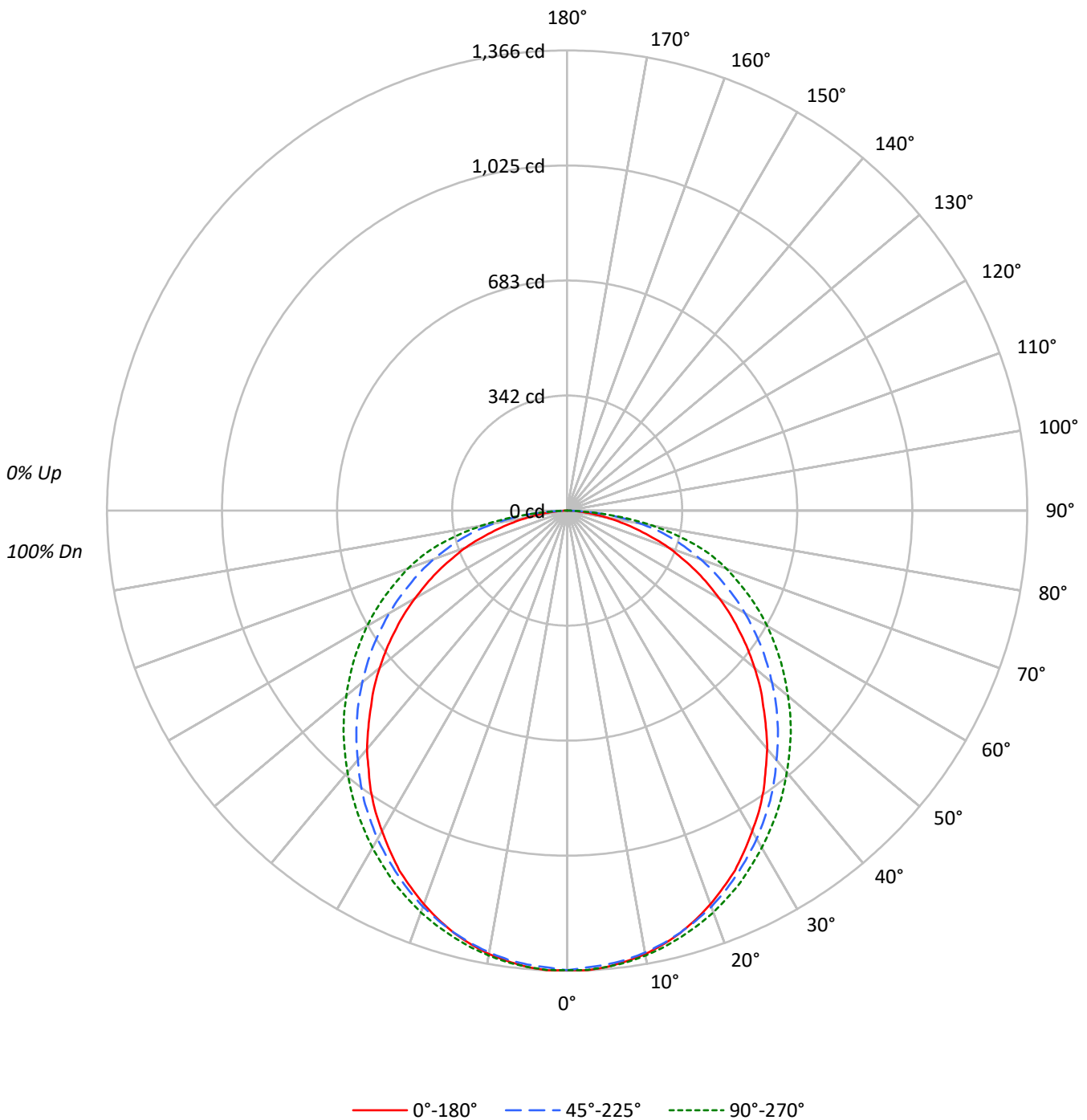
Input Watts (W): 31.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P473763

CATALOG NUMBER: 24CZ2-40-UNV-L830-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P473763

CATALOG NUMBER: 24CZ2-40-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	99	95	105	101	97	93	97	93	90		93	90	87		89	87	85	83
2	98	89	82	76	95	88	81	75	84	78	74		81	76	72		78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	61		71	65	60		68	63	59	57
4	82	69	60	53	79	68	59	53	65	58	52		63	57	51		61	55	51	48
5	75	62	53	46	73	61	52	46	58	51	45		56	50	44		55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39		51	44	39		49	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35		47	40	35		45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31		43	36	31		41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28		39	33	28		38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25		36	30	25		36	30	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1836	1836	1836
5°	1836	1827	1836
10°	1826	1820	1832
15°	1808	1807	1825
20°	1781	1792	1817
25°	1750	1770	1808
30°	1707	1749	1795
35°	1669	1726	1788
40°	1623	1698	1781
45°	1568	1681	1786
50°	1521	1662	1792
55°	1465	1650	1812
60°	1404	1642	1845
65°	1338	1636	1892
70°	1260	1653	1980
75°	1107	1687	2059
80°	924	1700	1987
85°	659	1457	1477



TEST NUMBER: P473763

CATALOG NUMBER: 24CZ2-40-UNV-L830-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.0	3.3
10°-20°	367.3	9.3
20°-30°	551.1	14.0
30°-40°	657.9	16.7
40°-50°	681.5	17.3
50°-60°	627.4	15.9
60°-70°	506.1	12.8
70°-80°	330.7	8.4
80°-90°	96.9	2.5
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°	1047.3	26.5
0°-40°	1705.2	43.2
0°-60°	3014.1	76.3
0°-90°	3947.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3947.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1364	1364	1364	1364	1364	
5°	1360	1358	1353	1360	1360	129
15°	1298	1298	1297	1310	1310	366
25°	1179	1181	1192	1214	1218	542
35°	1016	1025	1051	1080	1089	635
45°	824	844	883	923	939	637
55°	624	651	704	755	772	559
65°	420	449	514	573	594	416
75°	213	253	325	381	396	227
85°	43	74	94	100	96	53
90°	0	0	0	0	0	



TEST NUMBER: P473763

CATALOG NUMBER: 24CZ2-40-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1364.2	1364.2	1364.2	1364.2	1364.2
2.5°	1366.1	1364.2	1357.2	1365.5	1364.8
5°	1359.7	1358.5	1352.7	1360.4	1359.7
7.5°	1349.5	1348.9	1344.4	1352.7	1352.7
10°	1336.8	1335.5	1332.3	1341.9	1341.2
12.5°	1318.9	1318.3	1316.4	1327.8	1327.2
15°	1297.9	1297.9	1297.2	1310.0	1310.0
17.5°	1272.4	1273.0	1275.5	1290.2	1290.9
20°	1243.7	1246.2	1251.3	1267.9	1269.2
22.5°	1211.1	1216.2	1223.2	1241.7	1243.7
25°	1178.6	1181.2	1192.0	1213.7	1218.1
27.5°	1139.1	1145.4	1159.5	1181.8	1186.3
30°	1098.9	1107.8	1125.7	1148.6	1155.6
32.5°	1059.3	1067.0	1088.0	1114.2	1122.5
35°	1016.0	1024.9	1051.0	1079.7	1088.7
37.5°	968.1	982.2	1009.6	1042.8	1052.3
40°	924.1	936.9	966.9	1003.9	1014.1
42.5°	873.7	889.7	926.0	963.7	976.4
45°	824.0	844.4	883.3	922.9	938.8
47.5°	777.4	794.0	839.9	884.6	898.6
50°	726.4	745.6	794.0	841.2	855.9
52.5°	676.0	699.0	748.1	797.9	813.8
55°	624.4	651.2	703.5	755.1	772.3
57.5°	574.6	601.4	655.6	710.5	728.3
60°	521.7	550.4	610.3	663.3	685.6
62.5°	470.7	499.4	562.5	619.9	641.0
65°	420.3	449.0	514.0	572.7	594.4
67.5°	368.0	399.2	468.8	525.5	546.6
70°	320.2	350.1	420.3	480.9	503.2
72.5°	265.3	301.0	372.5	432.4	453.5
75°	213.0	253.2	324.6	380.8	396.1
77.5°	164.5	204.7	276.2	318.2	327.8
80°	119.3	160.1	219.4	248.7	256.4
82.5°	77.2	119.3	158.8	178.6	181.1
85°	42.7	74.0	94.4	100.1	95.7
87.5°	15.3	28.1	27.4	22.3	17.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)