

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: P473771

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473771
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-40HE-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,RIBBED LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3998.9 lumens
Efficiency: N/A
Efficacy: 130.3 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

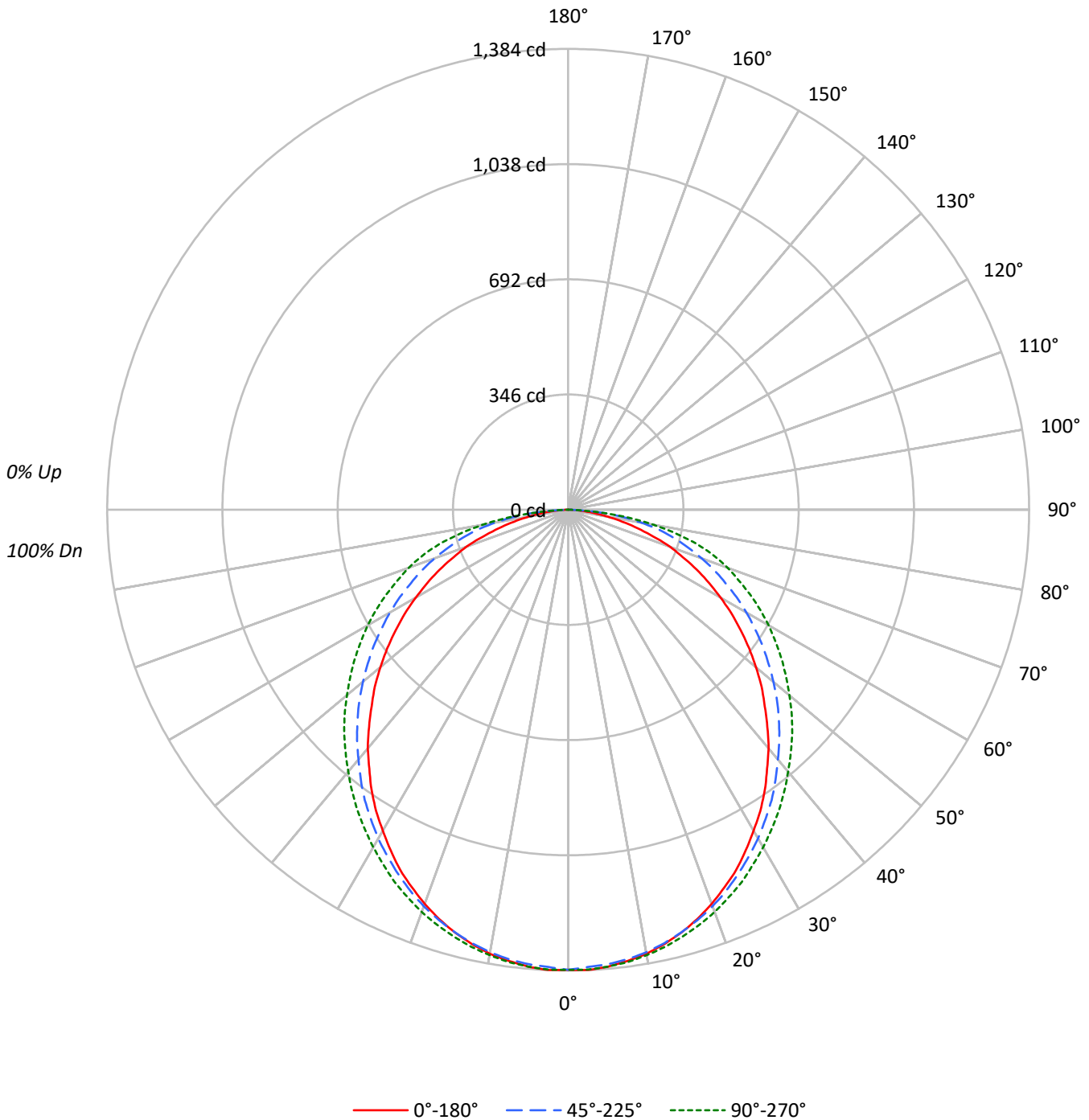
Input Watts (W): 30.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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°	1859	1859	1859
5°	1860	1851	1860
10°	1850	1844	1856
15°	1831	1830	1848
20°	1804	1815	1841
25°	1772	1792	1832
30°	1729	1772	1819
35°	1690	1749	1811
40°	1644	1720	1804
45°	1588	1703	1810
50°	1540	1684	1815
55°	1484	1672	1835
60°	1422	1664	1869
65°	1355	1658	1917
70°	1276	1675	2005
75°	1122	1709	2086
80°	936	1722	2012
85°	668	1476	1496



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.6	3.3
10°-20°	372.1	9.3
20°-30°	558.2	14.0
30°-40°	666.4	16.7
40°-50°	690.3	17.3
50°-60°	635.5	15.9
60°-70°	512.6	12.8
70°-80°	334.9	8.4
80°-90°	98.2	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°	1060.9	26.5
0°-40°	1727.3	43.2
0°-60°	3053.1	76.3
0°-90°	3998.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3998.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1382	1382	1382	1382	1382	
5°	1377	1376	1370	1378	1377	131
15°	1315	1315	1314	1327	1327	370
25°	1194	1196	1207	1229	1234	549
35°	1029	1038	1065	1094	1103	643
45°	835	855	895	935	951	645
55°	632	660	713	765	782	566
65°	426	455	521	580	602	421
75°	216	256	329	386	401	230
85°	43	75	96	101	97	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1381.9	1381.9	1381.9	1381.9	1381.9
2.5°	1383.8	1381.9	1374.8	1383.2	1382.5
5°	1377.3	1376.1	1370.2	1378.0	1377.3
7.5°	1367.0	1366.4	1361.8	1370.2	1370.2
10°	1354.1	1352.8	1349.6	1359.3	1358.6
12.5°	1336.0	1335.4	1333.4	1345.0	1344.4
15°	1314.7	1314.7	1314.0	1327.0	1327.0
17.5°	1288.8	1289.5	1292.1	1306.9	1307.6
20°	1259.8	1262.4	1267.5	1284.3	1285.6
22.5°	1226.8	1232.0	1239.1	1257.8	1259.8
25°	1193.9	1196.5	1207.4	1229.4	1233.9
27.5°	1153.8	1160.3	1174.5	1197.1	1201.6
30°	1113.1	1122.2	1140.3	1163.5	1170.6
32.5°	1073.1	1080.8	1102.1	1128.6	1137.0
35°	1029.1	1038.2	1064.7	1093.7	1102.8
37.5°	980.7	994.9	1022.7	1056.3	1066.0
40°	936.1	949.0	979.4	1016.9	1027.2
42.5°	885.1	901.2	938.0	976.2	989.1
45°	834.7	855.4	894.8	934.8	951.0
47.5°	787.5	804.3	850.8	896.1	910.3
50°	735.8	755.2	804.3	852.1	867.0
52.5°	684.8	708.1	757.8	808.2	824.3
55°	632.5	659.6	712.6	764.9	782.3
57.5°	582.1	609.2	664.1	719.7	737.8
60°	528.5	557.5	618.3	671.9	694.5
62.5°	476.8	505.8	569.8	627.9	649.3
65°	425.7	454.8	520.7	580.1	602.1
67.5°	372.8	404.4	474.8	532.3	553.7
70°	324.3	354.7	425.7	487.1	509.7
72.5°	268.8	304.9	377.3	438.0	459.3
75°	215.8	256.5	328.8	385.7	401.2
77.5°	166.7	207.4	279.7	322.4	332.1
80°	120.8	162.2	222.2	252.0	259.7
82.5°	78.2	120.8	160.9	180.9	183.5
85°	43.3	74.9	95.6	101.4	96.9
87.5°	15.5	28.4	27.8	22.6	18.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)