

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: P473861

Luminaire Tested: **24CZ2-30-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473861
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30-UNV-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

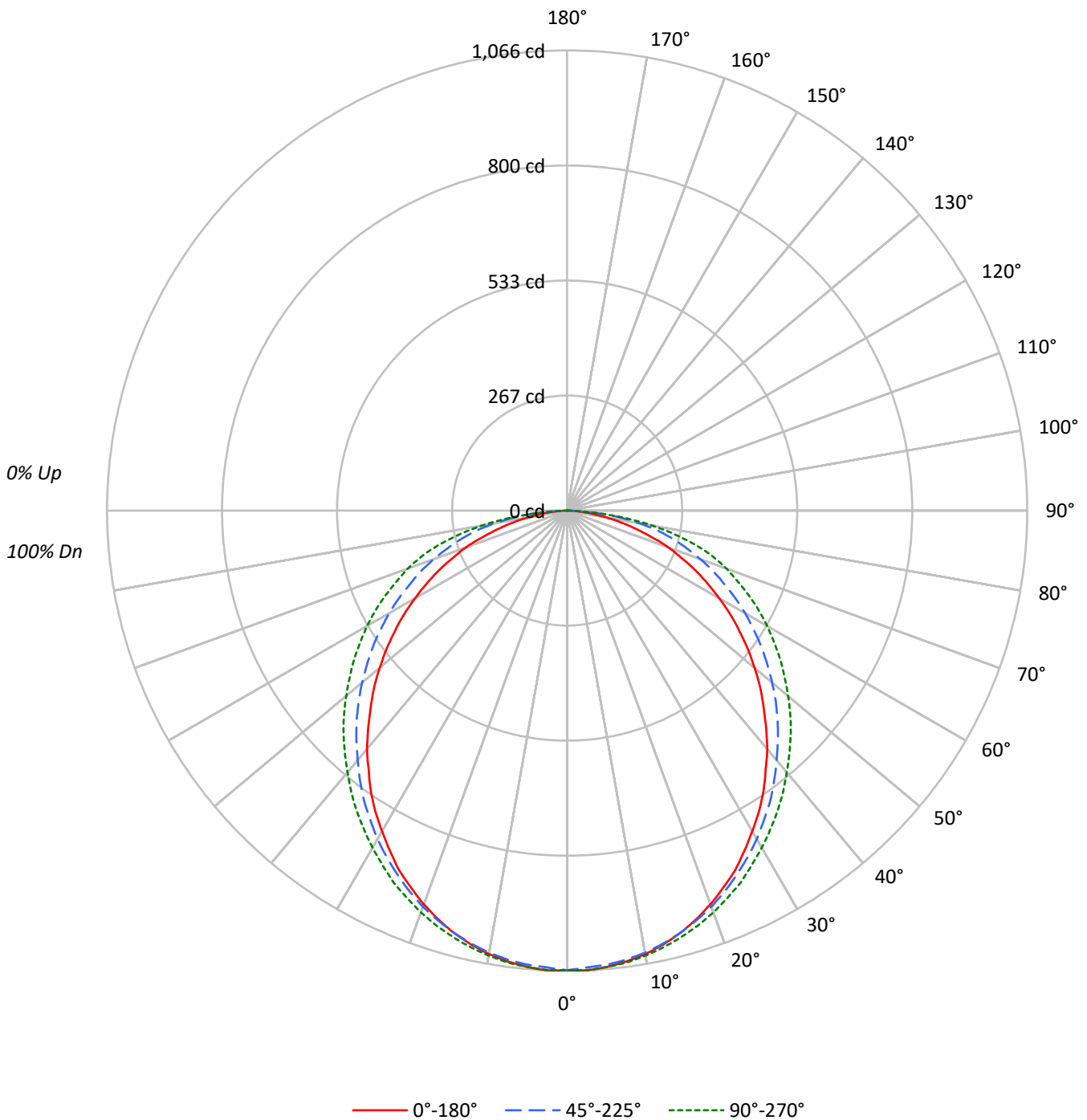
Lumens per Lamp: N/A
Luminaire Lumens: 3081.4 lumens
Efficiency: N/A
Efficacy: 130.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.6
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



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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°	1433	1433	1433
5°	1433	1426	1433
10°	1426	1421	1430
15°	1411	1410	1424
20°	1390	1398	1418
25°	1366	1381	1412
30°	1333	1365	1401
35°	1303	1348	1396
40°	1267	1326	1390
45°	1224	1312	1394
50°	1187	1297	1398
55°	1143	1288	1414
60°	1096	1282	1440
65°	1045	1277	1477
70°	983	1291	1545
75°	865	1317	1607
80°	721	1327	1550
85°	516	1138	1153



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.7	3.3
10°-20°	286.7	9.3
20°-30°	430.1	14.0
30°-40°	513.5	16.7
40°-50°	531.9	17.3
50°-60°	489.7	15.9
60°-70°	395.0	12.8
70°-80°	258.1	8.4
80°-90°	75.7	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°	817.5	26.5
0°-40°	1331.0	43.2
0°-60°	2352.6	76.3
0°-90°	3081.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3081.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1065	1065	1065	1065	1065	
5°	1061	1060	1056	1062	1061	101
15°	1013	1013	1012	1022	1022	285
25°	920	922	930	947	951	423
35°	793	800	820	843	850	495
45°	643	659	690	720	733	497
55°	487	508	549	589	603	436
65°	328	350	401	447	464	324
75°	166	198	253	297	309	177
85°	33	58	74	78	75	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1064.8	1064.8	1064.8	1064.8	1064.8
2.5°	1066.3	1064.8	1059.3	1065.8	1065.3
5°	1061.3	1060.3	1055.9	1061.8	1061.3
7.5°	1053.4	1052.9	1049.4	1055.9	1055.9
10°	1043.4	1042.4	1039.9	1047.4	1046.9
12.5°	1029.5	1029.0	1027.5	1036.4	1035.9
15°	1013.0	1013.0	1012.5	1022.5	1022.5
17.5°	993.1	993.6	995.6	1007.1	1007.6
20°	970.7	972.7	976.7	989.7	990.6
22.5°	945.3	949.3	954.8	969.2	970.7
25°	920.0	921.9	930.4	947.3	950.8
27.5°	889.1	894.1	905.0	922.4	925.9
30°	857.7	864.7	878.6	896.6	902.0
32.5°	826.9	832.8	849.3	869.7	876.1
35°	793.0	800.0	820.4	842.8	849.8
37.5°	755.7	766.6	788.0	813.9	821.4
40°	721.3	731.3	754.7	783.6	791.5
42.5°	682.0	694.4	722.8	752.2	762.2
45°	643.2	659.1	689.5	720.3	732.8
47.5°	606.8	619.8	655.6	690.5	701.4
50°	567.0	581.9	619.8	656.6	668.1
52.5°	527.7	545.6	583.9	622.8	635.2
55°	487.4	508.3	549.1	589.4	602.9
57.5°	448.5	469.4	511.8	554.6	568.5
60°	407.2	429.6	476.4	517.7	535.1
62.5°	367.4	389.8	439.1	483.9	500.3
65°	328.1	350.5	401.2	447.0	464.0
67.5°	287.2	311.6	365.9	410.2	426.6
70°	249.9	273.3	328.1	375.4	392.8
72.5°	207.1	235.0	290.7	337.5	353.9
75°	166.3	197.6	253.4	297.2	309.1
77.5°	128.4	159.8	215.6	248.4	255.9
80°	93.1	125.0	171.2	194.1	200.1
82.5°	60.2	93.1	124.0	139.4	141.4
85°	33.4	57.7	73.7	78.2	74.7
87.5°	11.9	21.9	21.4	17.4	13.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)