

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: P474069

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

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474069  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-30HE-S-UNV-L840-CD1-U  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

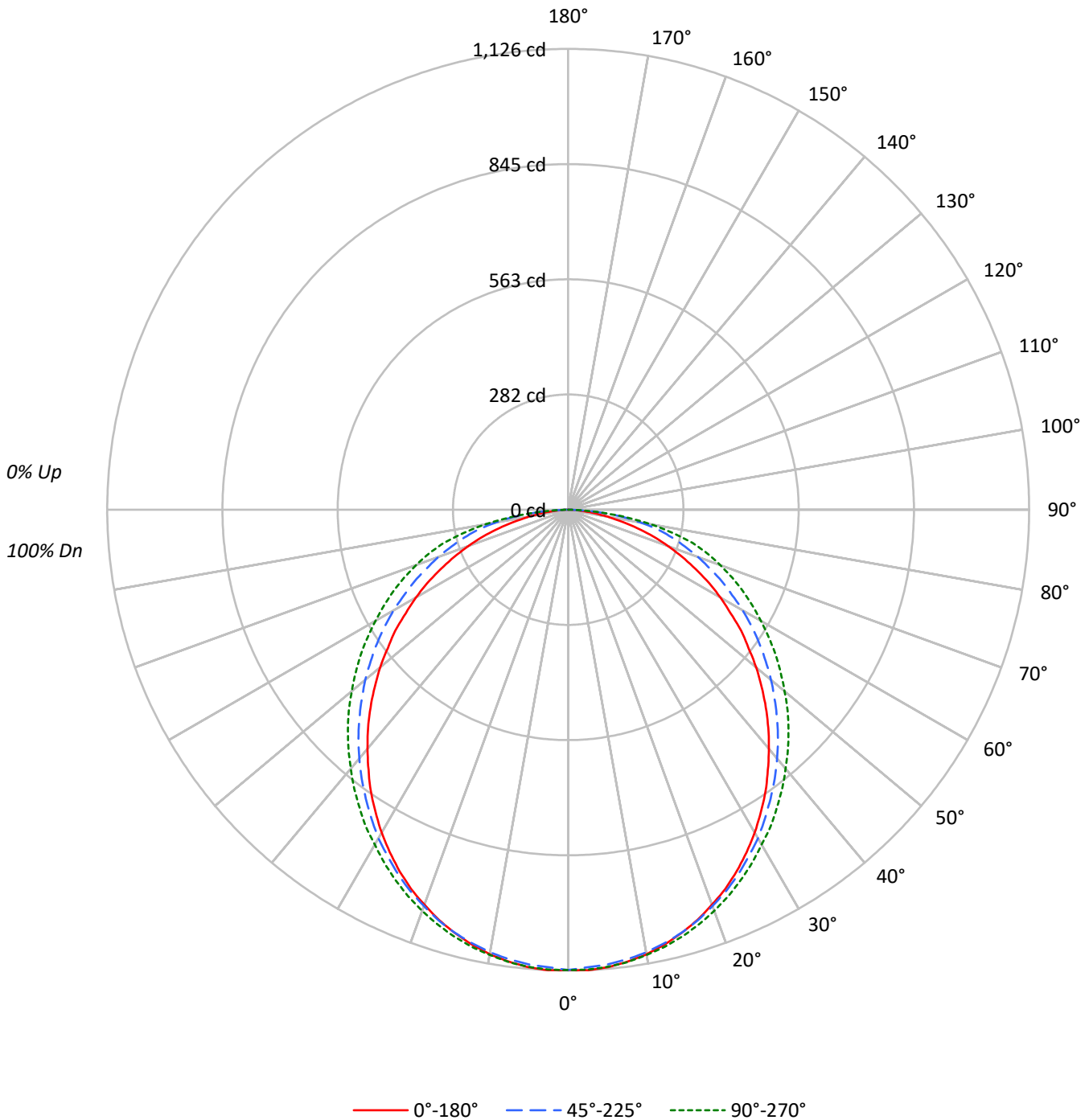
Lumens per Lamp: N/A  
Luminaire Lumens: 3222.1 lumens  
Efficiency: N/A  
Efficacy: 144.5 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 22.3  
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	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	38	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1513	1513	1513
5°	1515	1506	1514
10°	1507	1500	1509
15°	1491	1491	1503
20°	1471	1476	1494
25°	1447	1459	1482
30°	1416	1441	1468
35°	1381	1415	1460
40°	1340	1394	1451
45°	1299	1373	1448
50°	1255	1354	1445
55°	1210	1337	1453
60°	1155	1324	1463
65°	1094	1319	1498
70°	1020	1326	1551
75°	908	1365	1634
80°	742	1394	1595
85°	523	1218	1241



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.3	3.3
10°-20°	302.8	9.4
20°-30°	453.9	14.1
30°-40°	540.6	16.8
40°-50°	557.5	17.3
50°-60°	508.7	15.8
60°-70°	406.8	12.6
70°-80°	265.7	8.2
80°-90°	79.8	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°	863.1	26.8
0°-40°	1403.7	43.6
0°-60°	2469.9	76.7
0°-90°	3222.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3222.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1125	1125	1125	1125	1125	
5°	1122	1120	1115	1122	1121	106
15°	1071	1071	1070	1079	1079	302
25°	974	976	983	997	998	449
35°	840	846	862	883	889	525
45°	683	695	721	752	761	526
55°	516	531	570	608	619	460
65°	344	367	414	455	470	341
75°	175	204	262	305	314	186
85°	34	61	79	80	80	43
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1124.7	1124.7	1124.7	1124.7	1124.7
2.5°	1126.2	1124.7	1118.8	1125.7	1124.7
5°	1122.0	1119.9	1115.1	1122.0	1121.0
7.5°	1113.5	1112.5	1107.7	1115.7	1114.6
10°	1103.0	1101.9	1098.2	1106.1	1104.5
12.5°	1088.1	1087.6	1085.0	1094.5	1093.4
15°	1070.7	1071.2	1070.1	1079.1	1079.1
17.5°	1050.6	1050.0	1052.2	1063.3	1062.2
20°	1027.3	1027.8	1030.5	1043.2	1043.2
22.5°	1002.9	1002.4	1008.2	1020.9	1022.0
25°	974.4	975.9	982.8	997.1	998.2
27.5°	943.7	946.3	954.8	971.2	972.8
30°	911.4	914.5	927.2	942.6	944.7
32.5°	875.9	882.8	894.4	914.0	919.3
35°	840.5	846.3	861.6	883.3	888.6
37.5°	801.3	810.8	828.3	852.1	859.0
40°	762.7	772.2	793.9	818.8	826.2
42.5°	723.5	733.5	758.4	786.5	794.4
45°	682.7	694.9	721.4	751.5	761.1
47.5°	640.9	655.2	683.8	716.6	727.2
50°	599.6	613.9	646.7	680.6	690.1
52.5°	555.2	573.2	608.1	644.6	654.2
55°	516.0	530.8	570.0	607.6	619.2
57.5°	470.0	490.1	531.9	570.0	581.1
60°	429.2	447.7	492.2	530.8	543.5
62.5°	387.9	407.0	451.5	495.4	507.0
65°	343.5	366.8	414.4	455.2	470.5
67.5°	301.1	325.5	374.2	417.6	433.5
70°	259.3	284.2	337.1	381.6	394.3
72.5°	218.1	244.0	299.0	342.4	357.2
75°	174.7	203.8	262.5	304.8	314.4
77.5°	133.9	166.2	225.5	254.0	260.9
80°	95.8	131.3	179.9	200.6	205.9
82.5°	63.0	97.4	134.4	145.5	144.0
85°	33.9	60.9	78.9	80.4	80.4
87.5°	13.2	24.3	24.9	19.1	18.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)