

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: P474111

Luminaire Tested: **24CZ2-30-S-UNV-L850-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474111
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30-S-UNV-L850-CD1-U
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

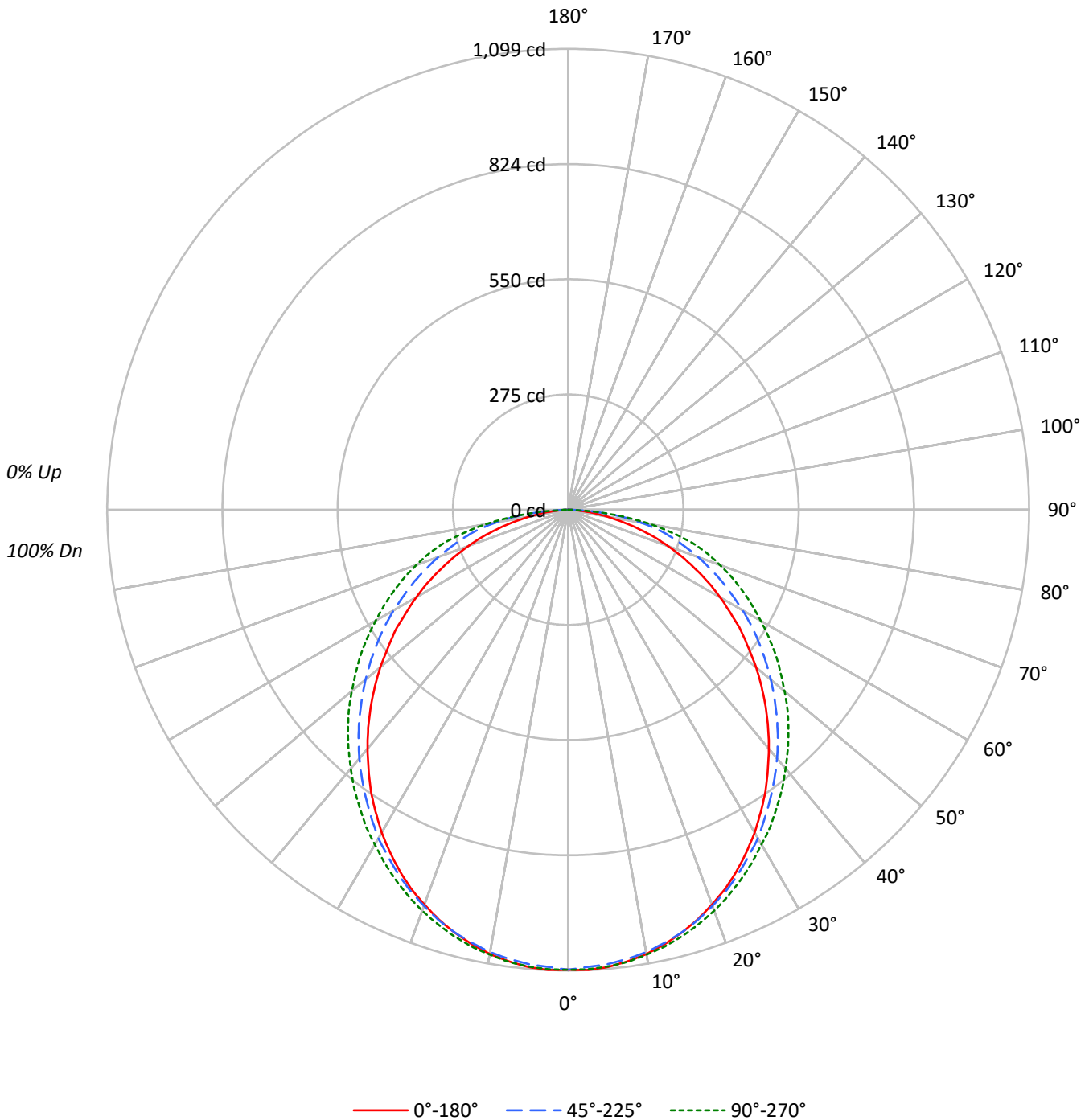
Lumens per Lamp: N/A
Luminaire Lumens: 3143.1 lumens
Efficiency: N/A
Efficacy: 133.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	1476	1476	1476
5°	1478	1469	1477
10°	1470	1464	1472
15°	1455	1454	1466
20°	1435	1439	1457
25°	1411	1423	1446
30°	1381	1405	1432
35°	1347	1381	1424
40°	1307	1360	1415
45°	1267	1339	1413
50°	1224	1321	1409
55°	1181	1304	1417
60°	1127	1292	1427
65°	1067	1287	1461
70°	995	1294	1513
75°	886	1331	1594
80°	724	1360	1556
85°	509	1187	1212



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.7	3.3
10°-20°	295.4	9.4
20°-30°	442.8	14.1
30°-40°	527.4	16.8
40°-50°	543.8	17.3
50°-60°	496.2	15.8
60°-70°	396.8	12.6
70°-80°	259.2	8.2
80°-90°	77.8	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°	841.9	26.8
0°-40°	1369.3	43.6
0°-60°	2409.3	76.7
0°-90°	3143.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3143.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1097	1097	1097	1097	1097	
5°	1094	1092	1088	1094	1094	104
15°	1044	1045	1044	1053	1053	294
25°	950	952	959	973	974	438
35°	820	826	840	862	867	512
45°	666	678	704	733	742	514
55°	503	518	556	593	604	448
65°	335	358	404	444	459	332
75°	170	199	256	297	307	181
85°	33	59	77	78	78	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1097.1	1097.1	1097.1	1097.1	1097.1
2.5°	1098.6	1097.1	1091.4	1098.1	1097.1
5°	1094.5	1092.4	1087.8	1094.5	1093.5
7.5°	1086.2	1085.2	1080.6	1088.3	1087.3
10°	1075.9	1074.9	1071.3	1079.0	1077.5
12.5°	1061.5	1060.9	1058.4	1067.7	1066.6
15°	1044.4	1044.9	1043.9	1052.7	1052.7
17.5°	1024.8	1024.3	1026.4	1037.2	1036.2
20°	1002.1	1002.6	1005.2	1017.6	1017.6
22.5°	978.3	977.8	983.5	995.9	996.9
25°	950.5	952.0	958.7	972.7	973.7
27.5°	920.5	923.1	931.4	947.4	948.9
30°	889.0	892.1	904.5	919.5	921.6
32.5°	854.4	861.1	872.5	891.6	896.8
35°	819.8	825.5	840.5	861.7	866.8
37.5°	781.6	790.9	808.0	831.2	837.9
40°	744.0	753.2	774.4	798.7	805.9
42.5°	705.7	715.6	739.8	767.2	774.9
45°	666.0	677.9	703.7	733.1	742.4
47.5°	625.2	639.1	667.0	699.0	709.4
50°	584.9	598.9	630.9	663.9	673.2
52.5°	541.6	559.1	593.2	628.8	638.1
55°	503.4	517.8	556.0	592.7	604.0
57.5°	458.5	478.1	518.9	556.0	566.9
60°	418.7	436.8	480.1	517.8	530.2
62.5°	378.4	397.0	440.4	483.2	494.6
65°	335.1	357.8	404.2	444.0	459.0
67.5°	293.8	317.5	365.0	407.3	422.8
70°	253.0	277.2	328.9	372.2	384.6
72.5°	212.7	238.0	291.7	334.0	348.5
75°	170.4	198.8	256.1	297.4	306.7
77.5°	130.6	162.1	219.9	247.8	254.5
80°	93.4	128.0	175.5	195.7	200.8
82.5°	61.4	95.0	131.1	142.0	140.4
85°	33.0	59.4	76.9	78.5	78.5
87.5°	12.9	23.7	24.3	18.6	17.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)