

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: P473782

Luminaire Tested: **24CZ2-30VHE-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473782
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30VHE-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

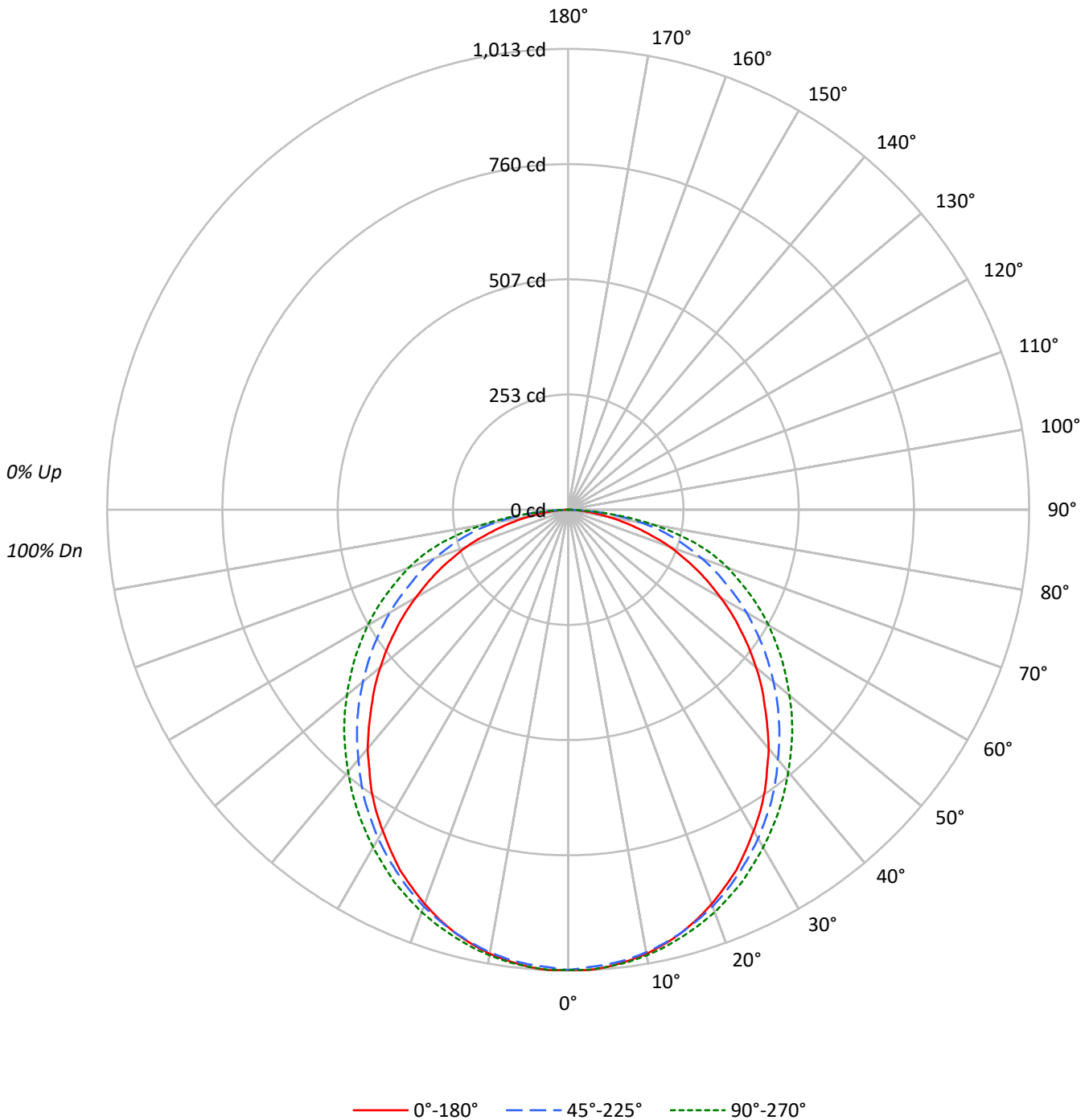
Lumens per Lamp: N/A
Luminaire Lumens: 2927.8 lumens
Efficiency: N/A
Efficacy: 142.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 20.5
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°	1361	1361	1361
5°	1362	1355	1362
10°	1354	1350	1359
15°	1341	1340	1353
20°	1321	1329	1348
25°	1298	1312	1341
30°	1266	1297	1332
35°	1238	1280	1326
40°	1204	1260	1321
45°	1163	1247	1325
50°	1128	1233	1329
55°	1086	1224	1344
60°	1041	1218	1368
65°	992	1214	1403
70°	934	1226	1468
75°	821	1252	1527
80°	685	1261	1473
85°	489	1081	1095



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.6	3.3
10°-20°	272.4	9.3
20°-30°	408.7	14.0
30°-40°	487.9	16.7
40°-50°	505.4	17.3
50°-60°	465.3	15.9
60°-70°	375.3	12.8
70°-80°	245.2	8.4
80°-90°	71.9	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°	776.7	26.5
0°-40°	1264.7	43.2
0°-60°	2235.3	76.3
0°-90°	2927.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2927.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1012	1012	1012	1012	1012	
5°	1008	1008	1003	1009	1008	96
15°	962	962	962	972	972	271
25°	874	876	884	900	903	402
35°	754	760	780	801	807	471
45°	611	626	655	684	696	472
55°	463	483	522	560	573	414
65°	312	333	381	425	441	308
75°	158	188	241	282	294	169
85°	32	55	70	74	71	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1011.7	1011.7	1011.7	1011.7	1011.7
2.5°	1013.1	1011.7	1006.5	1012.7	1012.2
5°	1008.4	1007.5	1003.2	1008.9	1008.4
7.5°	1000.8	1000.4	997.1	1003.2	1003.2
10°	991.4	990.4	988.1	995.2	994.7
12.5°	978.1	977.7	976.3	984.8	984.3
15°	962.5	962.5	962.1	971.5	971.5
17.5°	943.6	944.1	946.0	956.9	957.3
20°	922.3	924.2	928.0	940.3	941.3
22.5°	898.2	902.0	907.2	920.9	922.3
25°	874.1	876.0	884.0	900.1	903.4
27.5°	844.8	849.5	859.9	876.5	879.8
30°	815.0	821.6	834.8	851.9	857.1
32.5°	785.6	791.3	806.9	826.3	832.5
35°	753.5	760.1	779.5	800.8	807.4
37.5°	718.0	728.4	748.7	773.3	780.4
40°	685.4	694.8	717.1	744.5	752.1
42.5°	648.0	659.8	686.8	714.7	724.1
45°	611.1	626.2	655.1	684.4	696.2
47.5°	576.6	588.9	622.9	656.0	666.4
50°	538.7	552.9	588.9	623.9	634.8
52.5°	501.4	518.4	554.8	591.7	603.5
55°	463.1	482.9	521.7	560.0	572.8
57.5°	426.2	446.0	486.2	526.9	540.2
60°	386.9	408.2	452.7	491.9	508.5
62.5°	349.1	370.4	417.2	459.7	475.4
65°	311.7	333.0	381.2	424.7	440.8
67.5°	272.9	296.1	347.6	389.7	405.4
70°	237.4	259.7	311.7	356.6	373.2
72.5°	196.8	223.3	276.2	320.7	336.3
75°	158.0	187.8	240.8	282.4	293.7
77.5°	122.0	151.8	204.8	236.0	243.1
80°	88.4	118.7	162.7	184.5	190.1
82.5°	57.2	88.4	117.8	132.4	134.3
85°	31.7	54.9	70.0	74.3	70.9
87.5°	11.4	20.8	20.3	16.6	13.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)