

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: P473811

Luminaire Tested: **24CZ2-30-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473811
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

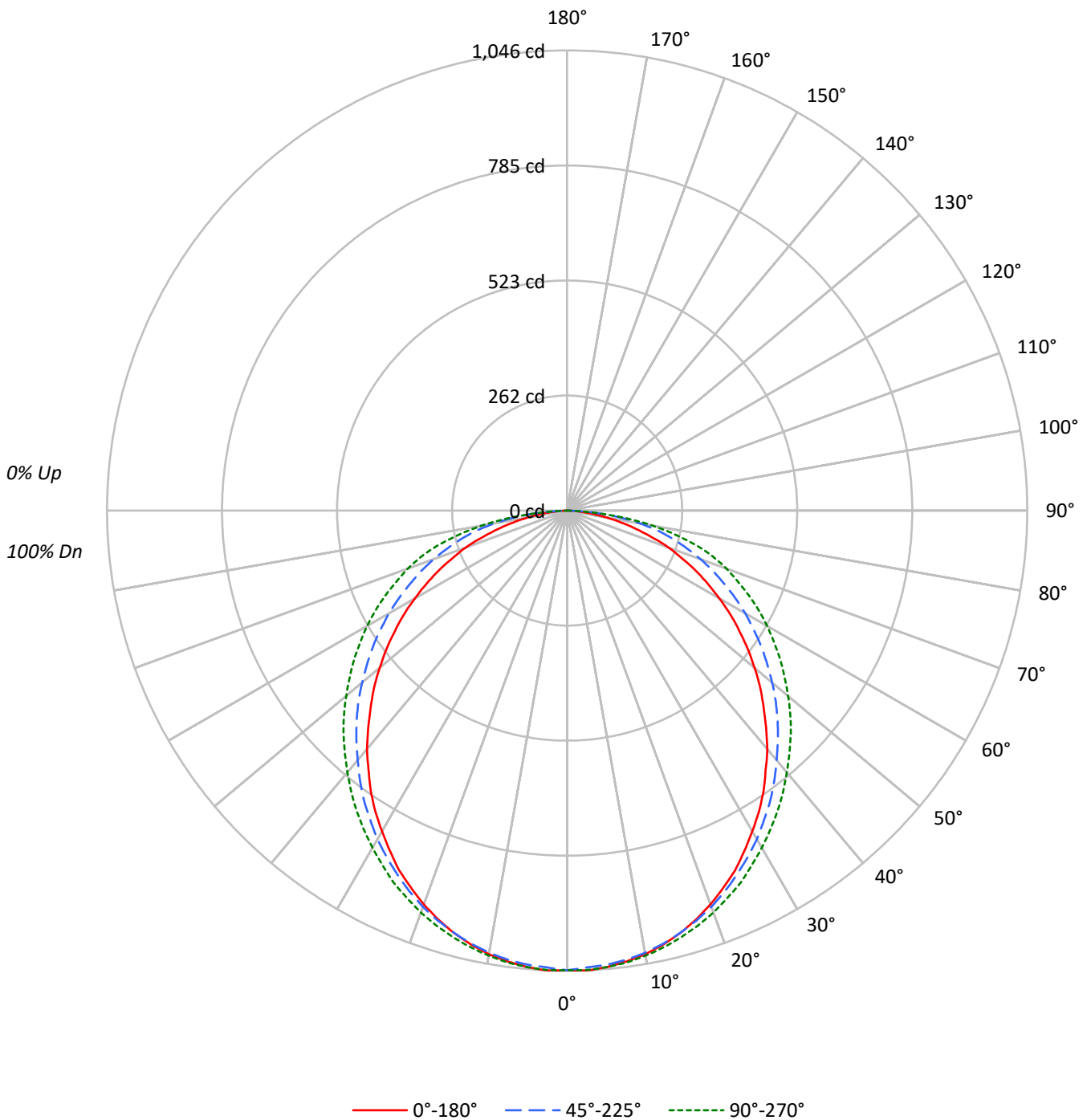
Lumens per Lamp: N/A
Luminaire Lumens: 3023.9 lumens
Efficiency: N/A
Efficacy: 128.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	1406	1406	1406
5°	1407	1400	1407
10°	1399	1394	1404
15°	1385	1384	1398
20°	1364	1372	1392
25°	1340	1356	1385
30°	1308	1340	1375
35°	1278	1322	1370
40°	1243	1301	1364
45°	1201	1287	1368
50°	1165	1273	1372
55°	1122	1264	1388
60°	1075	1258	1413
65°	1025	1254	1450
70°	965	1266	1517
75°	848	1293	1577
80°	708	1303	1522
85°	505	1116	1132



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.8	3.3
10°-20°	281.4	9.3
20°-30°	422.1	14.0
30°-40°	504.0	16.7
40°-50°	522.0	17.3
50°-60°	480.6	15.9
60°-70°	387.6	12.8
70°-80°	253.3	8.4
80°-90°	74.3	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°	802.3	26.5
0°-40°	1306.2	43.2
0°-60°	2308.8	76.3
0°-90°	3023.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3023.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1045	1045	1045	1045	1045	
5°	1042	1041	1036	1042	1042	99
15°	994	994	994	1003	1003	280
25°	903	905	913	930	933	415
35°	778	785	805	827	834	486
45°	631	647	677	707	719	488
55°	478	499	539	578	592	428
65°	322	344	394	439	455	318
75°	163	194	249	292	303	174
85°	33	57	72	77	73	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1045.0	1045.0	1045.0	1045.0	1045.0
2.5°	1046.4	1045.0	1039.6	1045.9	1045.5
5°	1041.5	1040.6	1036.2	1042.0	1041.5
7.5°	1033.7	1033.2	1029.8	1036.2	1036.2
10°	1024.0	1023.0	1020.5	1027.9	1027.4
12.5°	1010.3	1009.8	1008.3	1017.1	1016.6
15°	994.2	994.2	993.7	1003.4	1003.4
17.5°	974.6	975.1	977.1	988.3	988.8
20°	952.6	954.6	958.5	971.2	972.2
22.5°	927.7	931.6	937.0	951.2	952.6
25°	902.8	904.8	913.1	929.7	933.1
27.5°	872.5	877.4	888.1	905.2	908.7
30°	841.7	848.6	862.3	879.8	885.2
32.5°	811.4	817.3	833.4	853.5	859.8
35°	778.2	785.1	805.1	827.1	833.9
37.5°	741.6	752.3	773.3	798.7	806.1
40°	707.9	717.7	740.6	768.9	776.8
42.5°	669.3	681.5	709.3	738.2	747.9
45°	631.2	646.8	676.6	706.9	719.1
47.5°	595.5	608.2	643.4	677.6	688.3
50°	556.4	571.1	608.2	644.4	655.6
52.5°	517.8	535.4	573.0	611.2	623.4
55°	478.3	498.8	538.8	578.4	591.6
57.5°	440.2	460.7	502.2	544.2	557.9
60°	399.6	421.6	467.5	508.1	525.2
62.5°	360.5	382.5	430.9	474.9	491.0
65°	321.9	343.9	393.8	438.7	455.3
67.5°	281.9	305.8	359.1	402.5	418.7
70°	245.2	268.2	321.9	368.4	385.5
72.5°	203.2	230.6	285.3	331.2	347.3
75°	163.2	193.9	248.7	291.7	303.4
77.5°	126.0	156.8	211.5	243.8	251.1
80°	91.4	122.6	168.1	190.5	196.4
82.5°	59.1	91.4	121.6	136.8	138.7
85°	32.7	56.7	72.3	76.7	73.3
87.5°	11.7	21.5	21.0	17.1	13.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)