

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: P474011

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474011
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-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

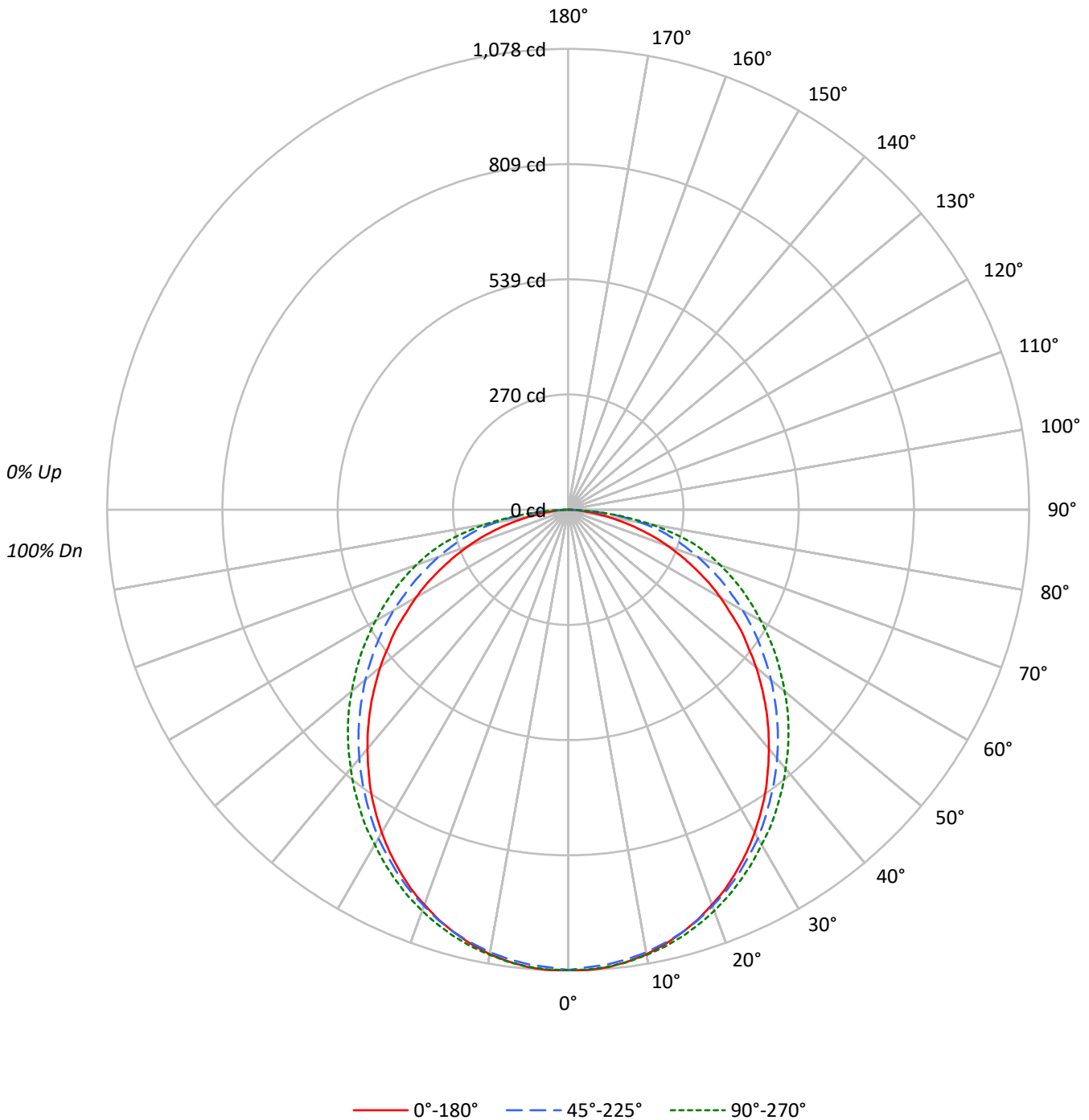
Lumens per Lamp: N/A
Luminaire Lumens: 3084.5 lumens
Efficiency: N/A
Efficacy: 130.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	1449	1449	1449
5°	1451	1442	1449
10°	1443	1436	1445
15°	1428	1427	1439
20°	1408	1412	1430
25°	1385	1397	1419
30°	1355	1379	1405
35°	1322	1355	1397
40°	1282	1335	1389
45°	1244	1314	1386
50°	1202	1296	1383
55°	1159	1280	1391
60°	1106	1268	1400
65°	1047	1263	1434
70°	977	1269	1485
75°	869	1306	1564
80°	711	1335	1527
85°	500	1166	1189



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.8	3.3
10°-20°	289.9	9.4
20°-30°	434.5	14.1
30°-40°	517.6	16.8
40°-50°	533.7	17.3
50°-60°	487.0	15.8
60°-70°	389.4	12.6
70°-80°	254.3	8.2
80°-90°	76.4	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°	826.2	26.8
0°-40°	1343.8	43.6
0°-60°	2364.4	76.7
0°-90°	3084.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3084.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1077	1077	1077	1077	1077	
5°	1074	1072	1068	1074	1073	102
15°	1025	1026	1024	1033	1033	289
25°	933	934	941	954	956	429
35°	805	810	825	846	851	503
45°	654	665	691	719	729	504
55°	494	508	546	582	593	440
65°	329	351	397	436	450	326
75°	167	195	251	292	301	178
85°	32	58	76	77	77	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1076.6	1076.6	1076.6	1076.6	1076.6
2.5°	1078.1	1076.6	1071.1	1077.6	1076.6
5°	1074.1	1072.1	1067.5	1074.1	1073.1
7.5°	1066.0	1065.0	1060.4	1068.0	1067.0
10°	1055.9	1054.8	1051.3	1058.9	1057.4
12.5°	1041.7	1041.2	1038.6	1047.8	1046.7
15°	1025.0	1025.5	1024.4	1033.1	1033.1
17.5°	1005.7	1005.2	1007.2	1017.9	1016.8
20°	983.4	983.9	986.4	998.6	998.6
22.5°	960.1	959.6	965.2	977.3	978.3
25°	932.7	934.3	940.8	954.5	955.5
27.5°	903.4	905.9	914.0	929.7	931.2
30°	872.4	875.5	887.6	902.3	904.4
32.5°	838.5	845.1	856.2	875.0	880.0
35°	804.6	810.1	824.8	845.6	850.7
37.5°	767.1	776.2	792.9	815.7	822.3
40°	730.1	739.2	760.0	783.8	790.9
42.5°	692.6	702.2	726.0	752.9	760.5
45°	653.6	665.2	690.6	719.4	728.6
47.5°	613.6	627.2	654.6	686.0	696.1
50°	574.0	587.7	619.1	651.6	660.7
52.5°	531.5	548.7	582.1	617.1	626.2
55°	494.0	508.2	545.7	581.6	592.8
57.5°	449.9	469.2	509.2	545.7	556.3
60°	410.9	428.6	471.2	508.2	520.3
62.5°	371.4	389.6	432.2	474.2	485.4
65°	328.8	351.1	396.7	435.7	450.4
67.5°	288.3	311.6	358.2	399.7	414.9
70°	248.3	272.1	322.7	365.3	377.5
72.5°	208.7	233.6	286.3	327.8	342.0
75°	167.2	195.1	251.3	291.8	300.9
77.5°	128.2	159.1	215.8	243.2	249.8
80°	91.7	125.6	172.3	192.0	197.1
82.5°	60.3	93.2	128.7	139.3	137.8
85°	32.4	58.3	75.5	77.0	77.0
87.5°	12.7	23.3	23.8	18.2	17.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)