

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: P474613

Luminaire Tested: **24CZ2-40-SQR-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474613
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-40-SQR-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, SQUARE LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

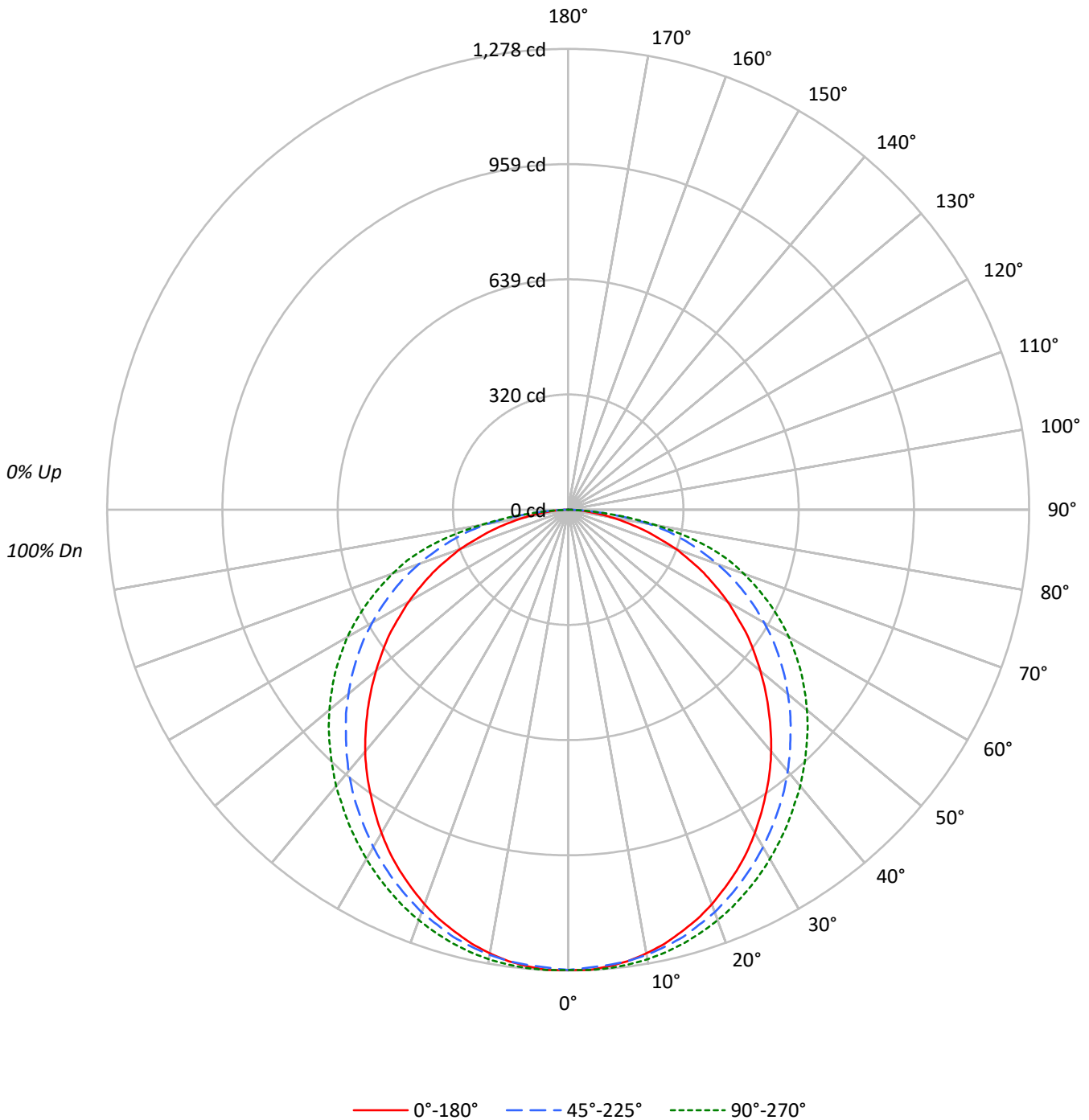
Lumens per Lamp: N/A
Luminaire Lumens: 3886.7 lumens
Efficiency: N/A
Efficacy: 123.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 31.6
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	98	94	105	101	96	93	96	93	90		92	90	87		89	87	84	82
2	98	89	82	76	95	87	81	75	84	78	73		80	76	71		77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61		70	64	60		68	63	59	56
4	81	69	59	53	79	67	59	52	65	57	51		62	56	51		60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39		50	43	38		49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34		46	39	34		44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30		42	35	30		41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27		39	32	27		38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	25		35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3435	3435	3435
5°	3435	3425	3448
10°	3414	3426	3460
15°	3377	3418	3465
20°	3334	3402	3469
25°	3280	3378	3470
30°	3216	3357	3475
35°	3143	3337	3488
40°	3075	3326	3516
45°	2992	3318	3554
50°	2912	3327	3618
55°	2843	3350	3700
60°	2747	3375	3803
65°	2637	3416	3918
70°	2501	3463	4075
75°	2241	3512	4210
80°	1886	3522	3820
85°	1399	2665	2510



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.0	3.1
10°-20°	346.7	8.9
20°-30°	524.9	13.5
30°-40°	634.9	16.3
40°-50°	670.2	17.2
50°-60°	632.0	16.3
60°-70°	521.1	13.4
70°-80°	341.8	8.8
80°-90°	94.0	2.4
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°	992.6	25.5
0°-40°	1627.5	41.9
0°-60°	2929.8	75.4
0°-90°	3886.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3886.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1277	1277	1277	1277	1277	
5°	1272	1272	1268	1277	1277	121
15°	1212	1219	1227	1241	1244	342
25°	1105	1118	1138	1161	1169	509
35°	957	982	1016	1051	1062	599
45°	786	822	872	918	934	607
55°	606	649	714	768	789	540
65°	414	464	536	594	615	409
75°	216	271	338	391	405	228
85°	45	78	86	84	81	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1276.6	1276.6	1276.6	1276.6	1276.6
2.5°	1277.9	1276.6	1271.1	1278.5	1277.9
5°	1271.7	1271.7	1268.0	1276.6	1276.6
7.5°	1263.0	1263.6	1262.4	1272.3	1272.3
10°	1249.3	1251.8	1253.7	1264.9	1266.1
12.5°	1233.2	1237.5	1241.3	1254.9	1256.2
15°	1212.1	1218.9	1227.0	1241.3	1243.7
17.5°	1190.3	1198.4	1207.1	1225.7	1228.8
20°	1164.3	1173.6	1187.9	1206.5	1211.4
22.5°	1135.1	1148.1	1163.0	1185.4	1191.6
25°	1104.6	1118.3	1137.6	1161.2	1168.6
27.5°	1071.7	1087.9	1109.6	1136.9	1145.0
30°	1035.1	1053.7	1080.4	1109.6	1118.3
32.5°	996.6	1018.3	1048.1	1080.4	1090.4
35°	956.9	981.7	1015.9	1050.6	1061.8
37.5°	917.7	942.6	982.9	1019.6	1030.1
40°	875.5	902.8	946.9	986.0	1001.0
42.5°	830.8	863.1	909.7	953.1	967.4
45°	786.1	821.5	871.8	918.4	933.9
47.5°	740.8	779.9	835.2	882.4	900.4
50°	695.5	737.1	794.8	845.7	864.3
52.5°	649.5	693.0	755.7	809.7	826.5
55°	606.0	648.9	714.1	767.5	788.6
57.5°	555.7	604.2	673.1	727.1	747.6
60°	510.4	557.6	627.1	684.3	706.6
62.5°	461.4	509.8	583.1	640.2	661.9
65°	414.2	463.8	536.5	593.6	615.3
67.5°	363.2	415.4	489.9	545.2	566.3
70°	317.9	367.0	440.2	496.8	517.9
72.5°	262.7	318.5	388.7	444.6	467.6
75°	215.5	270.7	337.8	391.2	404.9
77.5°	165.8	221.1	287.5	322.3	331.6
80°	121.7	173.9	227.3	245.9	246.5
82.5°	82.0	127.9	158.3	167.7	166.4
85°	45.3	78.2	86.3	83.8	81.3
87.5°	18.6	26.1	21.1	14.9	11.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)