

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: P474634

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474634
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-40VHE-SQR-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SQUARE LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3847.7 lumens
Efficiency: N/A
Efficacy: 140.9 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

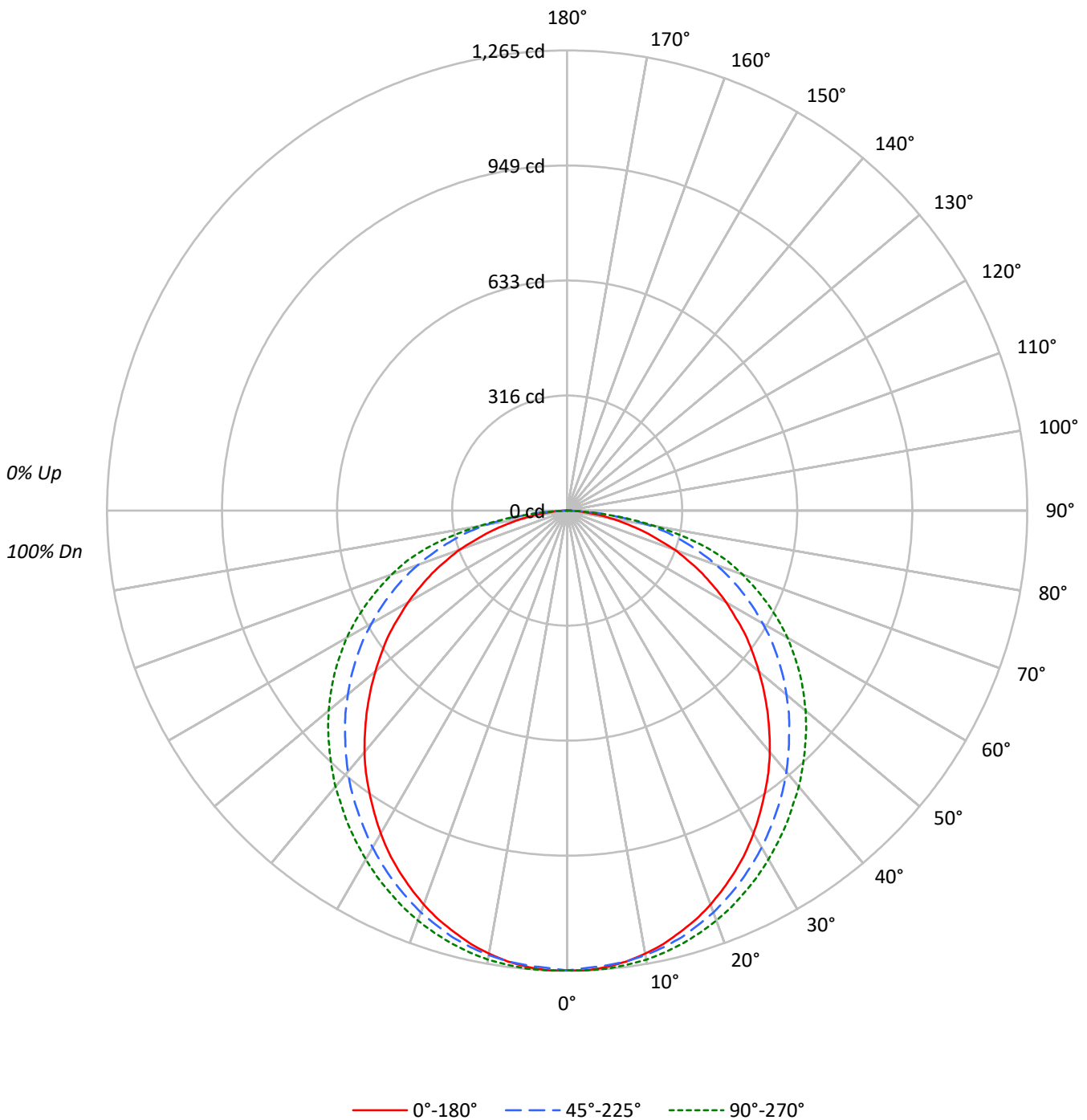
Input Watts (W): 27.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82					82			
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68					68			
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56					56			
4	81	69	59	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48					48			
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41					41			
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36					36			
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31					31			
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28					28			
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25					25			
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23					23			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3401	3401	3401
5°	3401	3391	3414
10°	3380	3391	3425
15°	3343	3384	3430
20°	3301	3367	3434
25°	3247	3344	3435
30°	3184	3324	3440
35°	3112	3304	3453
40°	3045	3293	3481
45°	2962	3285	3518
50°	2882	3294	3582
55°	2815	3316	3663
60°	2720	3342	3765
65°	2611	3382	3879
70°	2476	3429	4034
75°	2218	3477	4167
80°	1867	3487	3781
85°	1386	2637	2485



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.8	3.1
10°-20°	343.2	8.9
20°-30°	519.6	13.5
30°-40°	628.6	16.3
40°-50°	663.5	17.2
50°-60°	625.7	16.3
60°-70°	515.8	13.4
70°-80°	338.4	8.8
80°-90°	93.0	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°	982.6	25.5
0°-40°	1611.2	41.9
0°-60°	2900.4	75.4
0°-90°	3847.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3847.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1264	1264	1264	1264	1264	
5°	1259	1259	1255	1264	1264	119
15°	1200	1207	1215	1229	1231	339
25°	1094	1107	1126	1150	1157	504
35°	947	972	1006	1040	1051	593
45°	778	813	863	909	924	601
55°	600	642	707	760	781	534
65°	410	459	531	588	609	405
75°	213	268	334	387	401	225
85°	45	78	85	83	80	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1263.9	1263.9	1263.9	1263.9	1263.9
2.5°	1265.1	1263.9	1258.3	1265.7	1265.1
5°	1258.9	1258.9	1255.2	1263.9	1263.9
7.5°	1250.3	1250.9	1249.7	1259.6	1259.6
10°	1236.8	1239.3	1241.1	1252.2	1253.4
12.5°	1220.8	1225.1	1228.8	1242.3	1243.6
15°	1199.9	1206.7	1214.7	1228.8	1231.3
17.5°	1178.4	1186.4	1195.0	1213.4	1216.5
20°	1152.6	1161.8	1175.9	1194.4	1199.3
22.5°	1123.7	1136.6	1151.4	1173.5	1179.6
25°	1093.6	1107.1	1126.2	1149.5	1156.9
27.5°	1061.0	1077.0	1098.5	1125.5	1133.5
30°	1024.7	1043.2	1069.6	1098.5	1107.1
32.5°	986.6	1008.1	1037.6	1069.6	1079.4
35°	947.3	971.9	1005.7	1040.1	1051.2
37.5°	908.5	933.1	973.1	1009.4	1019.8
40°	866.7	893.8	937.4	976.2	990.9
42.5°	822.5	854.5	900.6	943.6	957.7
45°	778.2	813.3	863.1	909.2	924.5
47.5°	733.4	772.1	826.8	873.5	891.3
50°	688.5	729.7	786.8	837.2	855.7
52.5°	643.0	686.0	748.1	801.6	818.2
55°	600.0	642.4	706.9	759.8	780.7
57.5°	550.2	598.1	666.4	719.8	740.1
60°	505.3	552.0	620.9	677.4	699.5
62.5°	456.7	504.7	577.2	633.8	655.3
65°	410.0	459.2	531.1	587.7	609.2
67.5°	359.6	411.2	485.0	539.7	560.6
70°	314.7	363.3	435.8	491.8	512.7
72.5°	260.0	315.3	384.8	440.1	462.9
75°	213.3	268.0	334.4	387.3	400.8
77.5°	164.1	218.8	284.6	319.0	328.3
80°	120.5	172.1	225.0	243.4	244.0
82.5°	81.1	126.6	156.8	166.0	164.7
85°	44.9	77.5	85.4	83.0	80.5
87.5°	18.4	25.8	20.9	14.8	11.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)