

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: P474621

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474621
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-40HE-SQR-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3937.0 lumens
Efficiency: N/A
Efficacy: 128.2 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

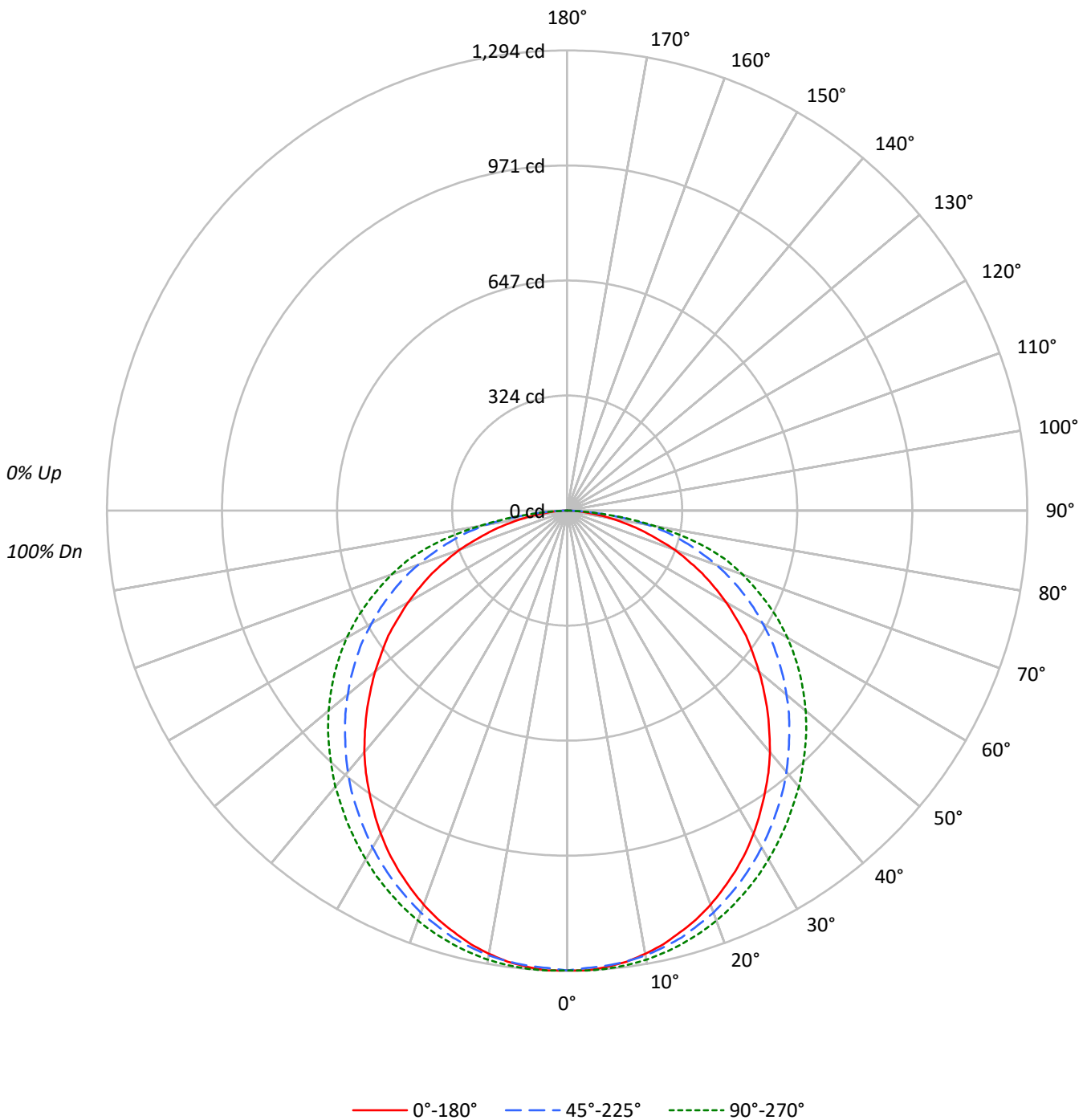
Input Watts (W): 30.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59
4	81	69	59	53	79	67	59	52	65	57	51	62	56	51	60	55	50
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3480	3480	3480
5°	3480	3469	3493
10°	3458	3470	3504
15°	3421	3463	3510
20°	3377	3446	3514
25°	3322	3421	3515
30°	3258	3401	3520
35°	3184	3380	3533
40°	3116	3370	3562
45°	3030	3361	3600
50°	2949	3370	3665
55°	2880	3393	3748
60°	2782	3419	3852
65°	2671	3460	3969
70°	2533	3508	4127
75°	2270	3558	4264
80°	1911	3567	3870
85°	1417	2699	2544



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.6	3.1
10°-20°	351.2	8.9
20°-30°	531.7	13.5
30°-40°	643.2	16.3
40°-50°	678.9	17.2
50°-60°	640.2	16.3
60°-70°	527.8	13.4
70°-80°	346.3	8.8
80°-90°	95.2	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°	1005.4	25.5
0°-40°	1648.6	41.9
0°-60°	2967.7	75.4
0°-90°	3937.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3937.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1293	1293	1293	1293	1293	
5°	1288	1288	1284	1293	1293	122
15°	1228	1235	1243	1257	1260	346
25°	1119	1133	1152	1176	1184	515
35°	969	994	1029	1064	1076	607
45°	796	832	883	930	946	615
55°	614	657	723	777	799	547
65°	420	470	543	601	623	414
75°	218	274	342	396	410	231
85°	46	79	87	85	82	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1293.2	1293.2	1293.2	1293.2	1293.2
2.5°	1294.4	1293.2	1287.5	1295.1	1294.4
5°	1288.2	1288.2	1284.4	1293.2	1293.2
7.5°	1279.3	1280.0	1278.7	1288.8	1288.8
10°	1265.5	1268.0	1269.9	1281.2	1282.5
12.5°	1249.2	1253.6	1257.3	1271.2	1272.4
15°	1227.8	1234.7	1242.9	1257.3	1259.9
17.5°	1205.8	1213.9	1222.7	1241.6	1244.8
20°	1179.3	1188.8	1203.2	1222.1	1227.1
22.5°	1149.8	1163.0	1178.1	1200.7	1207.0
25°	1119.0	1132.8	1152.3	1176.2	1183.7
27.5°	1085.6	1102.0	1124.0	1151.7	1159.8
30°	1048.5	1067.4	1094.4	1124.0	1132.8
32.5°	1009.5	1031.5	1061.7	1094.4	1104.5
35°	969.3	994.4	1029.0	1064.2	1075.6
37.5°	929.6	954.8	995.7	1032.8	1043.5
40°	886.9	914.5	959.2	998.8	1013.9
42.5°	841.6	874.3	921.5	965.5	980.0
45°	796.3	832.1	883.1	930.3	946.0
47.5°	750.4	790.0	846.0	893.8	912.0
50°	704.5	746.6	805.1	856.7	875.5
52.5°	657.9	701.9	765.5	820.2	837.2
55°	613.9	657.3	723.3	777.4	798.8
57.5°	562.9	612.0	681.8	736.5	757.3
60°	517.0	564.8	635.3	693.1	715.8
62.5°	467.3	516.4	590.6	648.5	670.5
65°	419.5	469.8	543.4	601.3	623.3
67.5°	368.0	420.8	496.3	552.2	573.6
70°	322.0	371.7	445.9	503.2	524.6
72.5°	266.1	322.7	393.7	450.4	473.6
75°	218.3	274.2	342.2	396.3	410.1
77.5°	167.9	223.9	291.2	326.4	335.9
80°	123.3	176.1	230.2	249.1	249.7
82.5°	83.0	129.6	160.4	169.8	168.6
85°	45.9	79.3	87.4	84.9	82.4
87.5°	18.9	26.4	21.4	15.1	12.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)