

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: P474571

Luminaire Tested: **24CZ2-40HE-SQR-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474571
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-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

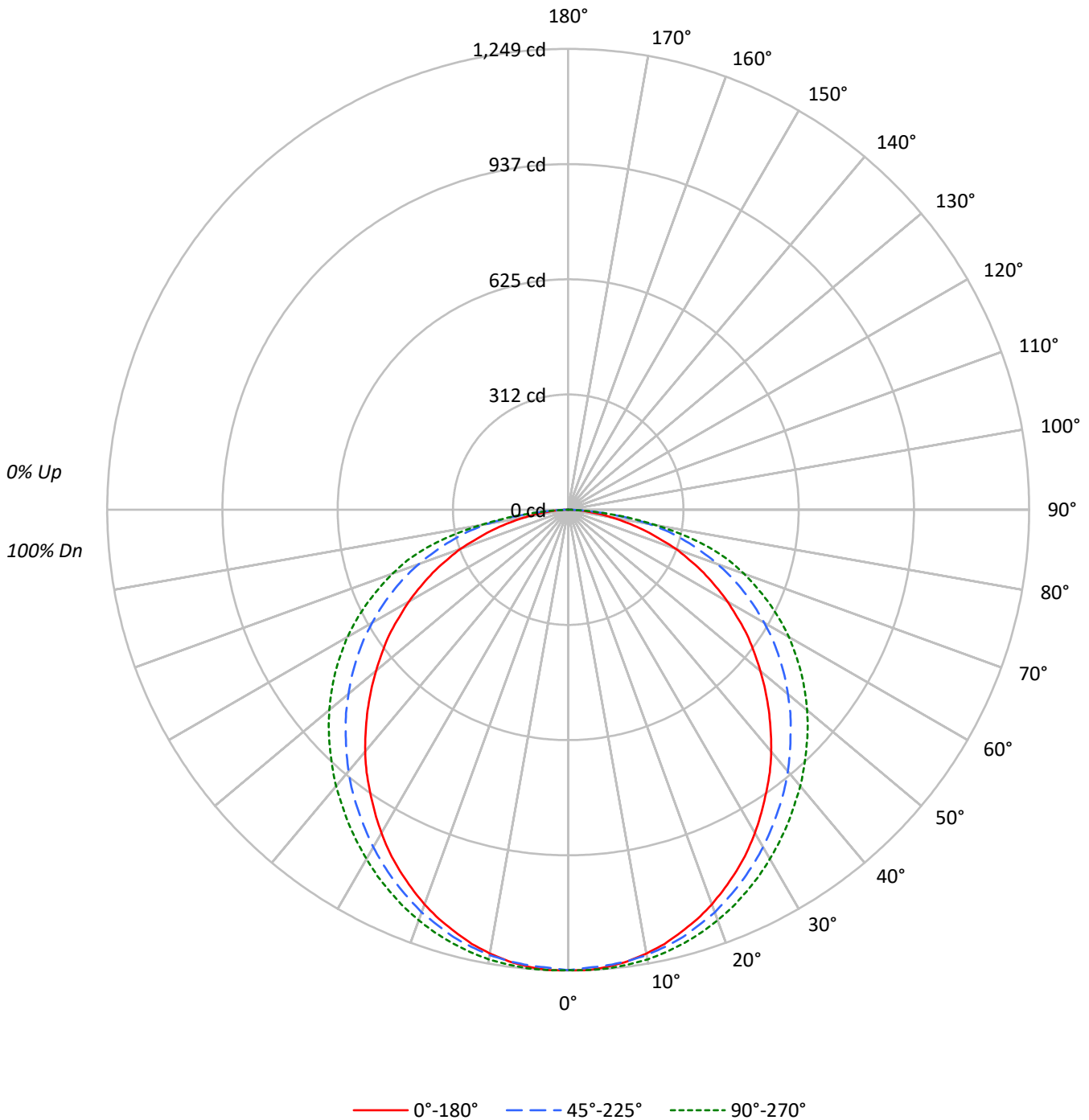
Lumens per Lamp: N/A
Luminaire Lumens: 3799.2 lumens
Efficiency: N/A
Efficacy: 123.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	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°	3358	3358	3358
5°	3358	3348	3371
10°	3337	3349	3382
15°	3301	3341	3387
20°	3259	3325	3391
25°	3206	3302	3392
30°	3144	3282	3397
35°	3073	3262	3410
40°	3006	3251	3437
45°	2924	3243	3474
50°	2846	3252	3537
55°	2779	3275	3616
60°	2685	3299	3717
65°	2578	3339	3830
70°	2445	3386	3983
75°	2190	3433	4114
80°	1844	3443	3735
85°	1368	2606	2455



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.3	3.1
10°-20°	338.9	8.9
20°-30°	513.1	13.5
30°-40°	620.7	16.3
40°-50°	655.2	17.2
50°-60°	617.8	16.3
60°-70°	509.3	13.4
70°-80°	334.1	8.8
80°-90°	91.9	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°	970.3	25.5
0°-40°	1590.9	41.9
0°-60°	2863.9	75.4
0°-90°	3799.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3799.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1248	1248	1248	1248	1248	
5°	1243	1243	1239	1248	1248	118
15°	1185	1192	1199	1213	1216	334
25°	1080	1093	1112	1135	1142	497
35°	935	960	993	1027	1038	586
45°	768	803	852	898	913	593
55°	592	634	698	750	771	528
65°	405	453	524	580	602	400
75°	211	265	330	382	396	223
85°	44	76	84	82	80	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1247.9	1247.9	1247.9	1247.9	1247.9
2.5°	1249.1	1247.9	1242.5	1249.7	1249.1
5°	1243.1	1243.1	1239.4	1247.9	1247.9
7.5°	1234.6	1235.2	1234.0	1243.7	1243.7
10°	1221.2	1223.6	1225.5	1236.4	1237.6
12.5°	1205.4	1209.7	1213.3	1226.7	1227.9
15°	1184.8	1191.5	1199.4	1213.3	1215.8
17.5°	1163.6	1171.4	1179.9	1198.2	1201.2
20°	1138.1	1147.2	1161.1	1179.3	1184.2
22.5°	1109.5	1122.3	1136.9	1158.7	1164.8
25°	1079.8	1093.1	1112.0	1135.0	1142.3
27.5°	1047.6	1063.4	1084.7	1111.4	1119.2
30°	1011.8	1030.0	1056.1	1084.7	1093.1
32.5°	974.2	995.4	1024.6	1056.1	1065.8
35°	935.3	959.6	993.0	1027.0	1037.9
37.5°	897.1	921.4	960.8	996.6	1007.0
40°	855.8	882.5	925.6	963.9	978.4
42.5°	812.1	843.7	889.2	931.7	945.7
45°	768.4	803.0	852.2	897.7	912.9
47.5°	724.1	762.4	816.4	862.5	880.1
50°	679.8	720.5	776.9	826.7	844.9
52.5°	634.9	677.4	738.7	791.5	807.9
55°	592.4	634.3	698.0	750.2	770.8
57.5°	543.2	590.6	658.0	710.8	730.8
60°	498.9	545.1	613.0	668.9	690.7
62.5°	451.0	498.3	569.9	625.8	647.0
65°	404.8	453.4	524.4	580.3	601.5
67.5°	355.1	406.1	478.9	532.9	553.6
70°	310.8	358.7	430.3	485.6	506.2
72.5°	256.7	311.4	380.0	434.6	457.0
75°	210.6	264.6	330.2	382.4	395.7
77.5°	162.1	216.1	281.0	315.0	324.1
80°	119.0	170.0	222.2	240.4	241.0
82.5°	80.1	125.0	154.8	163.9	162.7
85°	44.3	76.5	84.4	81.9	79.5
87.5°	18.2	25.5	20.6	14.6	11.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)