

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: P474561

Luminaire Tested: **24CZ2-30-SQR-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474561
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30-SQR-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, SQUARE LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

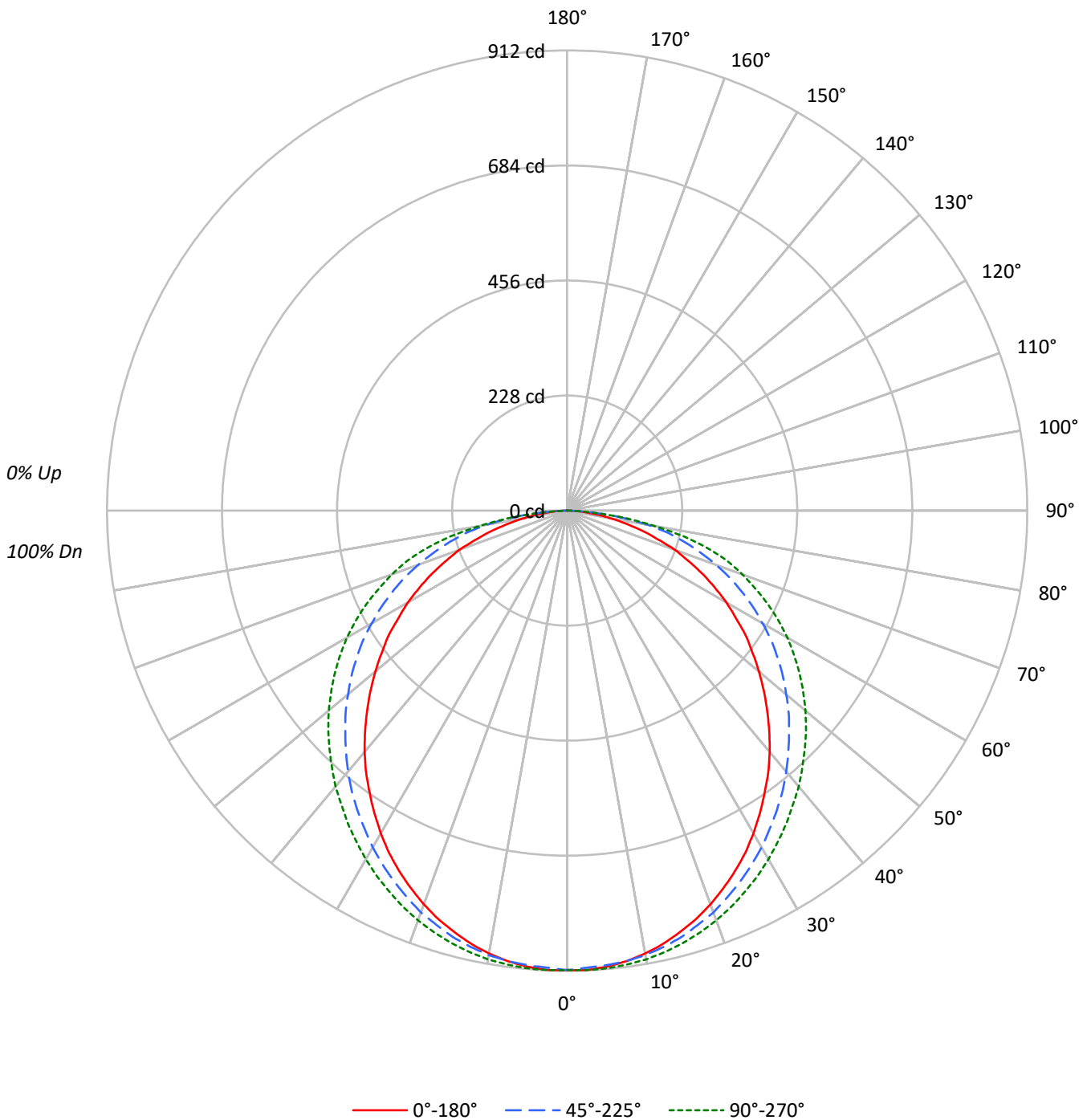
Lumens per Lamp: N/A
Luminaire Lumens: 2772.4 lumens
Efficiency: N/A
Efficacy: 117.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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



TEST NUMBER: P474561
CATALOG NUMBER: 24CZ2-30-SQR-UNV-L830-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P474561

CATALOG NUMBER: 24CZ2-30-SQR-UNV-L830-CD1-U

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°	2450	2450	2450
5°	2450	2443	2460
10°	2435	2444	2468
15°	2409	2438	2472
20°	2378	2426	2475
25°	2340	2409	2475
30°	2294	2395	2479
35°	2242	2380	2488
40°	2194	2373	2508
45°	2134	2367	2535
50°	2077	2373	2581
55°	2028	2390	2639
60°	1960	2408	2713
65°	1881	2437	2795
70°	1784	2471	2906
75°	1598	2505	3003
80°	1345	2512	2724
85°	997	1902	1791



TEST NUMBER: P474561

CATALOG NUMBER: 24CZ2-30-SQR-UNV-L830-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.3	3.1
10°-20°	247.3	8.9
20°-30°	374.4	13.5
30°-40°	452.9	16.3
40°-50°	478.1	17.2
50°-60°	450.8	16.3
60°-70°	371.7	13.4
70°-80°	243.8	8.8
80°-90°	67.0	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°	708.0	25.5
0°-40°	1160.9	41.9
0°-60°	2089.9	75.4
0°-90°	2772.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2772.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	911	911	911	911	911	
5°	907	907	904	911	911	86
15°	865	870	875	885	887	244
25°	788	798	811	828	834	363
35°	682	700	725	749	757	427
45°	561	586	622	655	666	433
55°	432	463	509	548	562	385
65°	295	331	383	423	439	292
75°	154	193	241	279	289	162
85°	32	56	62	60	58	40
90°	0	0	0	0	0	



TEST NUMBER: P474561

CATALOG NUMBER: 24CZ2-30-SQR-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	910.6	910.6	910.6	910.6	910.6
2.5°	911.5	910.6	906.7	912.0	911.5
5°	907.1	907.1	904.4	910.6	910.6
7.5°	900.9	901.3	900.5	907.5	907.5
10°	891.2	892.9	894.3	902.2	903.1
12.5°	879.6	882.7	885.4	895.1	896.0
15°	864.6	869.5	875.2	885.4	887.2
17.5°	849.1	854.8	861.0	874.3	876.5
20°	830.5	837.1	847.3	860.6	864.1
22.5°	809.7	819.0	829.6	845.5	850.0
25°	788.0	797.7	811.4	828.3	833.6
27.5°	764.5	776.0	791.5	811.0	816.7
30°	738.4	751.6	770.7	791.5	797.7
32.5°	710.9	726.4	747.7	770.7	777.8
35°	682.5	700.3	724.6	749.4	757.4
37.5°	654.6	672.4	701.1	727.3	734.8
40°	624.5	644.0	675.5	703.4	714.0
42.5°	592.6	615.7	648.9	679.9	690.1
45°	560.7	586.0	621.9	655.1	666.2
47.5°	528.4	556.3	595.7	629.4	642.2
50°	496.1	525.7	566.9	603.3	616.5
52.5°	463.3	494.3	539.0	577.6	589.5
55°	432.3	462.9	509.4	547.5	562.5
57.5°	396.4	431.0	480.1	518.7	533.3
60°	364.1	397.7	447.4	488.1	504.0
62.5°	329.1	363.6	415.9	456.7	472.2
65°	295.4	330.9	382.7	423.4	438.9
67.5°	259.1	296.3	349.5	388.9	403.9
70°	226.8	261.8	314.0	354.3	369.4
72.5°	187.4	227.2	277.3	317.1	333.5
75°	153.7	193.1	240.9	279.0	288.8
77.5°	118.3	157.7	205.1	229.9	236.5
80°	86.8	124.0	162.1	175.4	175.8
82.5°	58.5	91.2	112.9	119.6	118.7
85°	32.3	55.8	61.6	59.8	58.0
87.5°	13.3	18.6	15.1	10.6	8.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)