

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: P474593

Luminaire Tested: **24CZ2-95VHE-SQR-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474593
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-95VHE-SQR-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SQUARE LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8749.1 lumens
Efficiency: N/A
Efficacy: 129.4 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

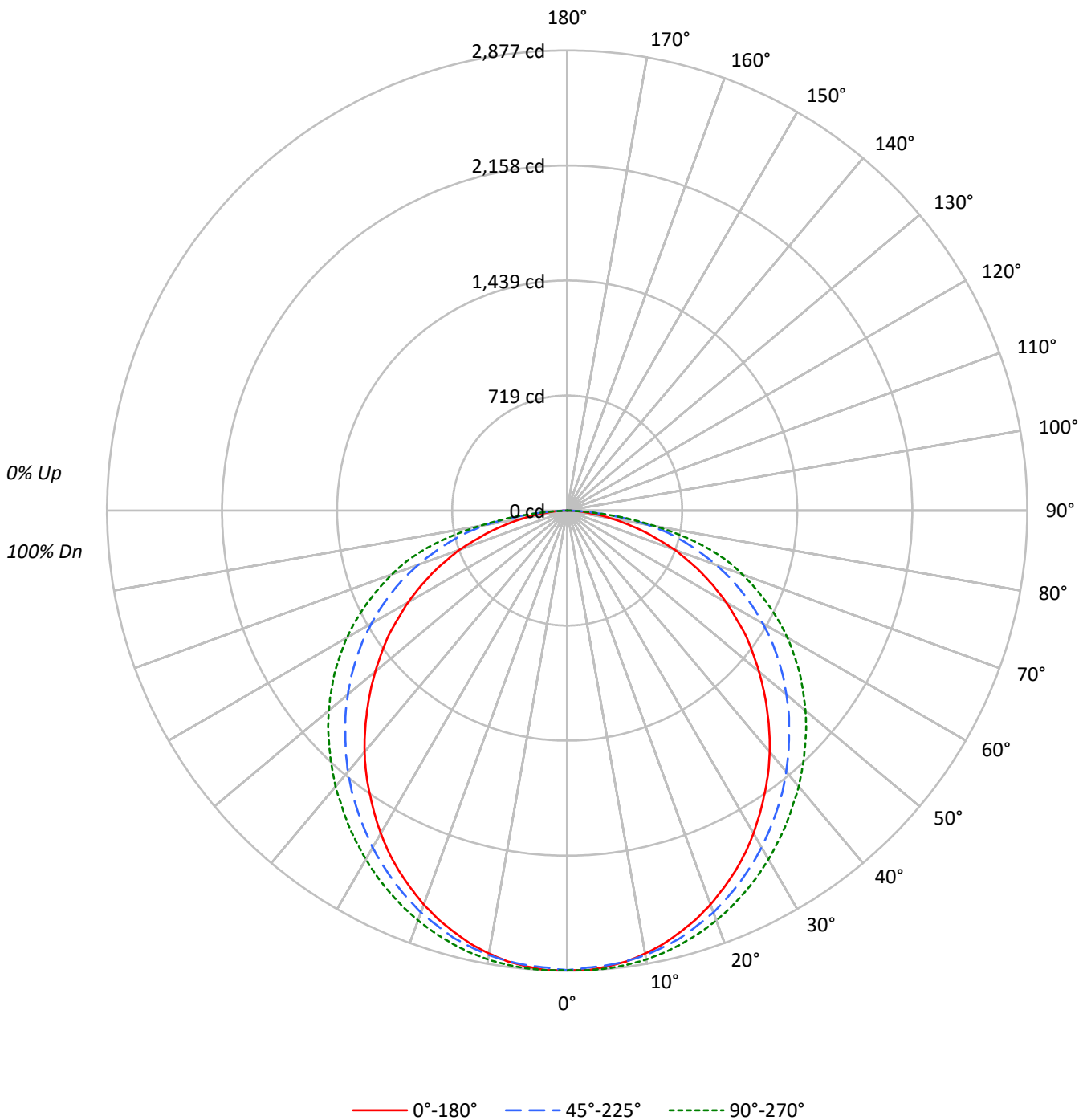
Input Watts (W): 67.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P474593

CATALOG NUMBER: 24CZ2-95VHE-SQR-UNV-L830-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P474593

CATALOG NUMBER: 24CZ2-95VHE-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°	7733	7733	7733
5°	7733	7710	7763
10°	7685	7711	7788
15°	7601	7695	7800
20°	7505	7657	7809
25°	7383	7603	7811
30°	7240	7557	7822
35°	7076	7512	7852
40°	6923	7488	7915
45°	6734	7468	8000
50°	6554	7490	8146
55°	6400	7541	8328
60°	6184	7598	8561
65°	5936	7690	8820
70°	5631	7797	9172
75°	5043	7906	9475
80°	4246	7928	8599
85°	3149	5999	5653



TEST NUMBER: P474593

CATALOG NUMBER: 24CZ2-95VHE-SQR-UNV-L830-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	272.3	3.1
10°-20°	780.5	8.9
20°-30°	1181.5	13.5
30°-40°	1429.3	16.3
40°-50°	1508.7	17.2
50°-60°	1422.7	16.3
60°-70°	1173.0	13.4
70°-80°	769.5	8.8
80°-90°	211.6	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°	2234.4	25.5
0°-40°	3663.6	41.9
0°-60°	6595.1	75.4
0°-90°	8749.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8749.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2874	2874	2874	2874	2874	
5°	2863	2863	2854	2874	2874	272
15°	2728	2744	2762	2794	2800	770
25°	2487	2517	2561	2614	2631	1145
35°	2154	2210	2287	2365	2390	1348
45°	1770	1849	1962	2067	2102	1366
55°	1364	1461	1607	1728	1775	1215
65°	932	1044	1208	1336	1385	921
75°	485	609	760	881	911	513
85°	102	176	194	189	183	127
90°	0	0	0	0	0	



TEST NUMBER: P474593

CATALOG NUMBER: 24CZ2-95VHE-SQR-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2873.8	2873.8	2873.8	2873.8	2873.8
2.5°	2876.6	2873.8	2861.2	2878.0	2876.6
5°	2862.6	2862.6	2854.2	2873.8	2873.8
7.5°	2843.0	2844.4	2841.6	2864.0	2864.0
10°	2812.3	2817.9	2822.1	2847.2	2850.0
12.5°	2775.9	2785.7	2794.1	2824.9	2827.7
15°	2728.4	2743.8	2762.0	2794.1	2799.7
17.5°	2679.5	2697.7	2717.2	2759.2	2766.2
20°	2620.8	2641.8	2673.9	2715.8	2727.0
22.5°	2555.1	2584.4	2618.0	2668.3	2682.3
25°	2486.6	2517.4	2560.7	2613.8	2630.6
27.5°	2412.5	2448.9	2497.8	2559.3	2577.5
30°	2330.1	2372.0	2432.1	2497.8	2517.4
32.5°	2243.4	2292.3	2359.4	2432.1	2454.5
35°	2153.9	2209.8	2286.7	2365.0	2390.2
37.5°	2065.9	2121.8	2212.6	2295.1	2318.9
40°	1970.8	2032.3	2131.6	2219.6	2253.2
42.5°	1870.2	1942.9	2047.7	2145.6	2177.7
45°	1769.6	1849.2	1962.4	2067.3	2102.2
47.5°	1667.5	1755.6	1880.0	1986.2	2026.7
50°	1565.5	1659.1	1789.1	1903.7	1945.7
52.5°	1462.1	1559.9	1701.1	1822.7	1860.4
55°	1364.2	1460.7	1607.4	1727.6	1775.1
57.5°	1251.0	1360.0	1515.2	1636.8	1682.9
60°	1149.0	1255.2	1411.7	1540.3	1590.6
62.5°	1038.5	1147.6	1312.5	1441.1	1490.0
65°	932.3	1044.1	1207.7	1336.3	1385.2
67.5°	817.7	935.1	1102.8	1227.2	1274.8
70°	715.7	826.1	991.0	1118.2	1165.7
72.5°	591.3	717.0	875.0	1000.8	1052.5
75°	485.0	609.4	760.4	880.6	911.3
77.5°	373.2	497.6	647.2	725.4	746.4
80°	274.0	391.4	511.6	553.5	554.9
82.5°	184.5	287.9	356.4	377.4	374.6
85°	102.0	176.1	194.3	188.7	183.1
87.5°	41.9	58.7	47.5	33.5	26.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)