

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: P474594

Luminaire Tested: **24CZ2-100VHE-SQR-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474594
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-100VHE-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: 9175.4 lumens
Efficiency: N/A
Efficacy: 129.0 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

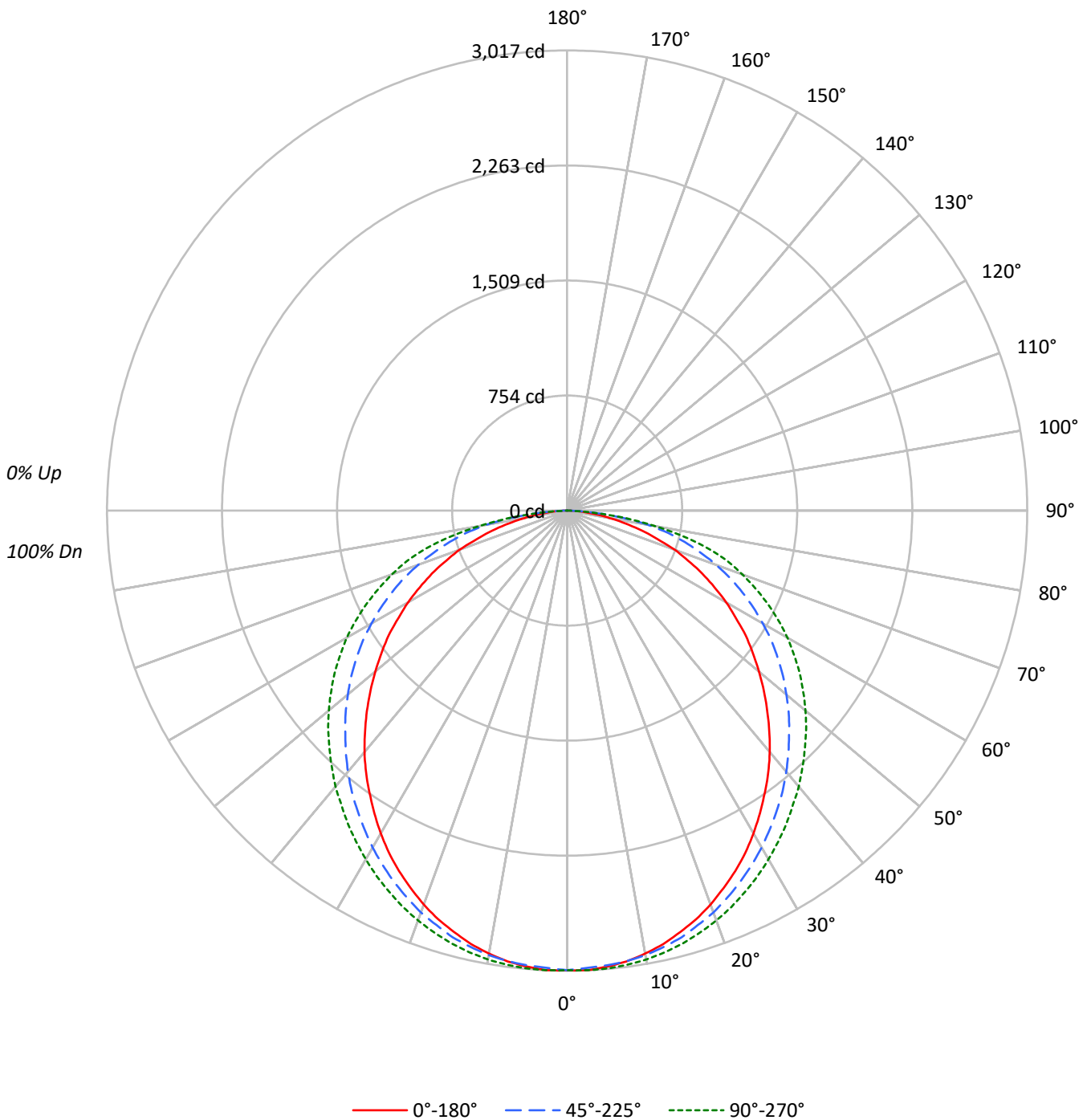
Input Watts (W): 71.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	8110	8110	8110
5°	8109	8086	8141
10°	8059	8087	8167
15°	7972	8069	8180
20°	7871	8030	8190
25°	7743	7974	8191
30°	7593	7925	8203
35°	7421	7878	8234
40°	7261	7853	8301
45°	7062	7832	8390
50°	6873	7855	8542
55°	6712	7909	8734
60°	6485	7968	8978
65°	6225	8064	9250
70°	5905	8177	9619
75°	5289	8291	9937
80°	4452	8314	9018
85°	3304	6292	5928



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	285.6	3.1
10°-20°	818.5	8.9
20°-30°	1239.1	13.5
30°-40°	1498.9	16.3
40°-50°	1582.2	17.2
50°-60°	1492.0	16.3
60°-70°	1230.1	13.4
70°-80°	807.0	8.8
80°-90°	221.9	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°	2343.2	25.5
0°-40°	3842.2	41.9
0°-60°	6916.4	75.4
0°-90°	9175.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9175.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3014	3014	3014	3014	3014	
5°	3002	3002	2993	3014	3014	285
15°	2861	2878	2896	2930	2936	807
25°	2608	2640	2686	2741	2759	1201
35°	2259	2318	2398	2480	2507	1414
45°	1856	1939	2058	2168	2205	1432
55°	1431	1532	1686	1812	1862	1275
65°	978	1095	1266	1401	1453	965
75°	509	639	797	924	956	538
85°	107	185	204	198	192	133
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3013.8	3013.8	3013.8	3013.8	3013.8
2.5°	3016.7	3013.8	3000.6	3018.2	3016.7
5°	3002.1	3002.1	2993.3	3013.8	3013.8
7.5°	2981.6	2983.0	2980.1	3003.6	3003.6
10°	2949.3	2955.2	2959.6	2986.0	2988.9
12.5°	2911.2	2921.5	2930.3	2962.5	2965.4
15°	2861.4	2877.5	2896.5	2930.3	2936.1
17.5°	2810.1	2829.1	2849.6	2893.6	2900.9
20°	2748.5	2770.5	2804.2	2848.2	2859.9
22.5°	2679.6	2710.4	2745.6	2798.3	2813.0
25°	2607.8	2640.0	2685.5	2741.2	2758.8
27.5°	2530.1	2568.2	2619.5	2684.0	2703.1
30°	2443.6	2487.6	2550.6	2619.5	2640.0
32.5°	2352.7	2404.0	2474.4	2550.6	2574.1
35°	2258.9	2317.5	2398.2	2480.2	2506.6
37.5°	2166.5	2225.2	2320.5	2406.9	2431.9
40°	2066.9	2131.4	2235.4	2327.8	2363.0
42.5°	1961.3	2037.5	2147.5	2250.1	2283.8
45°	1855.8	1939.3	2058.1	2168.0	2204.7
47.5°	1748.8	1841.1	1971.6	2083.0	2125.5
50°	1641.8	1740.0	1876.3	1996.5	2040.5
52.5°	1533.3	1635.9	1784.0	1911.5	1951.1
55°	1430.7	1531.8	1685.7	1811.8	1861.6
57.5°	1311.9	1426.3	1589.0	1716.5	1764.9
60°	1204.9	1316.3	1480.5	1615.4	1668.2
62.5°	1089.1	1203.5	1376.4	1511.3	1562.6
65°	977.7	1095.0	1266.5	1401.4	1452.7
67.5°	857.5	980.7	1156.6	1287.0	1336.9
70°	750.5	866.3	1039.3	1172.7	1222.5
72.5°	620.1	752.0	917.6	1049.6	1103.8
75°	508.7	639.1	797.4	923.5	955.7
77.5°	391.4	521.8	678.7	760.8	782.8
80°	287.3	410.4	536.5	580.5	581.9
82.5°	193.5	302.0	373.8	395.8	392.9
85°	107.0	184.7	203.8	197.9	192.0
87.5°	44.0	61.6	49.8	35.2	27.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)