

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: P475227

Luminaire Tested: **22CZ2-32-SQR-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475227
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-32-SQR-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, SQUARE LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

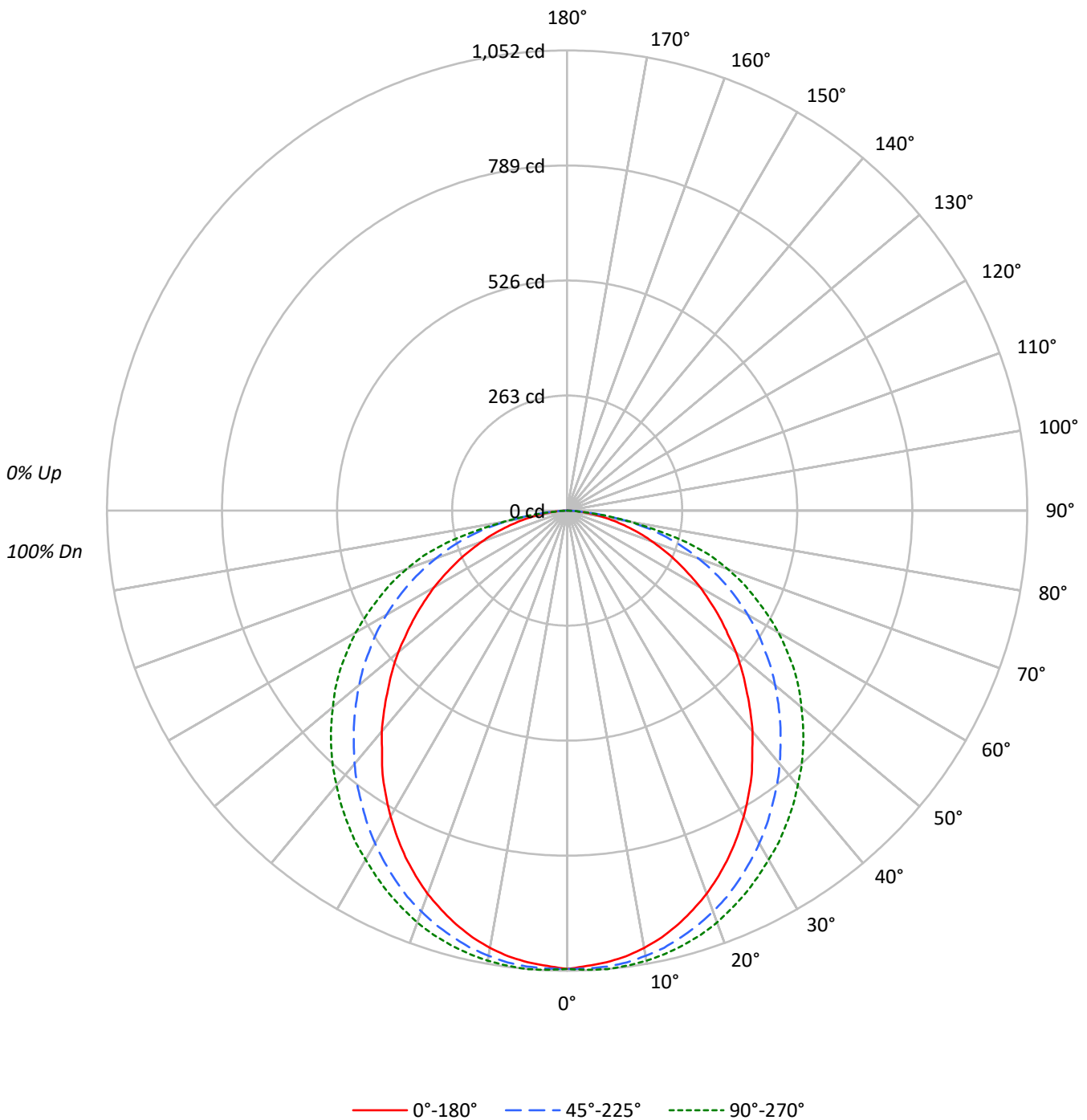
Lumens per Lamp: N/A
Luminaire Lumens: 2999.7 lumens
Efficiency: N/A
Efficacy: 124.0 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 24.2
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	109	104	99	95	106	101	97	94	97	94	91		93	91	88		90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75		81	77	73		78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62		72	66	61		69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53		64	57	52		61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40		52	45	40		50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35		47	40	35		46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32		43	36	31		42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28		40	33	28		39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2820	2820	2820
5°	2800	2827	2842
10°	2774	2824	2855
15°	2729	2812	2864
20°	2670	2793	2870
25°	2596	2765	2866
30°	2508	2730	2862
35°	2418	2689	2872
40°	2316	2656	2881
45°	2205	2622	2904
50°	2110	2599	2926
55°	1997	2578	2973
60°	1892	2567	3004
65°	1768	2547	3028
70°	1624	2509	3069
75°	1466	2442	2960
80°	1257	2163	2228
85°	1013	1275	1013



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.3	3.3
10°-20°	284.0	9.5
20°-30°	426.6	14.2
30°-40°	508.8	17.0
40°-50°	526.0	17.5
50°-60°	483.6	16.1
60°-70°	385.0	12.8
70°-80°	235.2	7.8
80°-90°	51.1	1.7
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°	810.0	27.0
0°-40°	1318.7	44.0
0°-60°	2328.4	77.6
0°-90°	2999.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2999.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1048	1048	1048	1048	1048	
5°	1036	1039	1046	1051	1052	98
15°	980	991	1009	1024	1028	276
25°	874	896	931	957	965	402
35°	736	767	819	861	874	459
45°	579	621	689	745	763	448
55°	426	473	550	612	634	381
65°	278	325	400	456	476	275
75°	141	182	235	276	285	150
85°	33	40	41	36	33	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1047.8	1047.8	1047.8	1047.8	1047.8
2.5°	1042.1	1043.6	1047.8	1050.8	1050.8
5°	1036.5	1039.3	1046.4	1050.8	1052.2
7.5°	1028.0	1032.2	1042.1	1047.8	1049.4
10°	1015.2	1020.9	1033.6	1042.1	1045.0
12.5°	999.4	1008.0	1023.7	1035.1	1037.9
15°	979.6	990.9	1009.4	1023.7	1028.0
17.5°	956.8	970.9	993.8	1010.9	1016.6
20°	932.5	946.8	975.3	995.2	1002.3
22.5°	904.1	922.6	955.3	978.2	983.9
25°	874.2	895.5	931.1	956.8	965.3
27.5°	841.4	867.1	905.6	936.9	944.0
30°	807.2	834.3	878.5	912.6	921.2
32.5°	771.6	803.0	849.9	888.4	899.9
35°	736.0	767.4	818.6	861.4	874.2
37.5°	694.8	731.8	788.8	832.9	848.5
40°	659.2	694.8	756.0	804.4	820.2
42.5°	619.3	657.7	721.9	774.5	793.1
45°	579.4	620.7	689.1	744.7	763.1
47.5°	542.4	583.7	654.9	713.4	731.8
50°	504.0	546.7	620.7	680.6	699.0
52.5°	462.7	509.6	586.5	646.4	667.8
55°	425.7	472.6	549.5	612.2	633.6
57.5°	387.2	435.6	515.5	575.2	595.2
60°	351.6	398.6	477.0	535.3	558.2
62.5°	313.2	361.6	438.4	495.5	516.9
65°	277.6	324.7	400.0	455.6	475.5
67.5°	242.0	289.1	360.1	412.9	435.6
70°	206.4	253.5	318.9	370.2	390.1
72.5°	175.2	216.5	279.0	326.1	344.5
75°	141.0	182.3	234.9	276.2	284.7
77.5°	109.6	146.7	190.8	209.2	212.2
80°	81.1	109.6	139.6	143.8	143.8
82.5°	54.0	75.5	86.8	88.2	86.8
85°	32.8	39.9	41.3	35.6	32.8
87.5°	11.3	11.3	7.1	4.3	1.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)