

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: P473805

Luminaire Tested: **24CZ2-155VHE-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473805
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-155VHE-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15000.7 lumens
Efficiency: N/A
Efficacy: 131.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

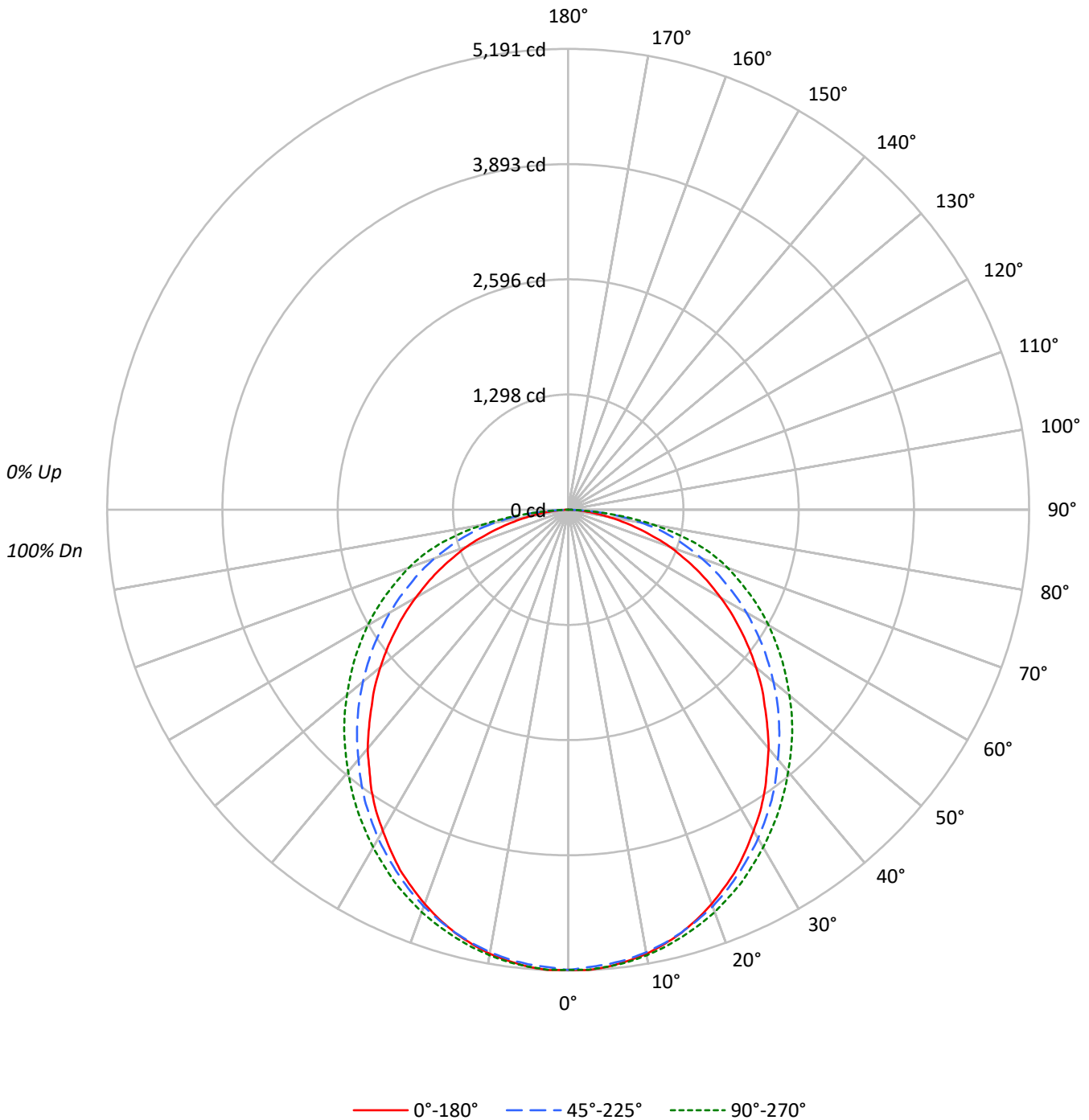
Input Watts (W): 114
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	88	81	75	84	78	74	81	76	72	78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57
4	82	69	60	53	79	68	59	53	65	58	52	63	57	51	61	55	51	48
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44	55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6975	6975	6975
5°	6978	6942	6978
10°	6940	6917	6963
15°	6869	6866	6934
20°	6766	6808	6905
25°	6649	6724	6872
30°	6487	6645	6822
35°	6341	6560	6795
40°	6168	6453	6768
45°	5958	6387	6788
50°	5778	6315	6808
55°	5565	6270	6884
60°	5335	6241	7011
65°	5084	6219	7191
70°	4786	6283	7522
75°	4208	6412	7823
80°	3512	6460	7548
85°	2507	5538	5612



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	490.0	3.3
10°-20°	1395.8	9.3
20°-30°	2093.9	14.0
30°-40°	2499.9	16.7
40°-50°	2589.5	17.3
50°-60°	2383.9	15.9
60°-70°	1923.0	12.8
70°-80°	1256.4	8.4
80°-90°	368.4	2.5
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°	3979.7	26.5
0°-40°	6479.6	43.2
0°-60°	11452.9	76.3
0°-90°	15000.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	15000.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5184	5184	5184	5184	5184	
5°	5167	5162	5140	5169	5167	490
15°	4932	4932	4929	4978	4978	1390
25°	4478	4488	4529	4612	4629	2059
35°	3860	3894	3994	4103	4137	2412
45°	3131	3209	3356	3507	3567	2420
55°	2372	2474	2673	2869	2935	2123
65°	1597	1706	1953	2176	2259	1579
75°	809	962	1234	1447	1505	864
85°	162	281	359	380	364	201
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5183.7	5183.7	5183.7	5183.7	5183.7
2.5°	5191.0	5183.7	5157.0	5188.5	5186.1
5°	5166.7	5161.9	5140.1	5169.1	5166.7
7.5°	5127.9	5125.5	5108.6	5140.1	5140.1
10°	5079.5	5074.6	5062.5	5098.9	5096.4
12.5°	5011.6	5009.2	5001.9	5045.5	5043.1
15°	4931.6	4931.6	4929.2	4977.7	4977.7
17.5°	4834.7	4837.1	4846.8	4902.6	4905.0
20°	4725.7	4735.3	4754.7	4817.7	4822.6
22.5°	4602.1	4621.4	4648.1	4718.4	4725.7
25°	4478.5	4488.2	4529.4	4611.8	4628.7
27.5°	4328.2	4352.4	4405.8	4490.6	4507.5
30°	4175.5	4209.5	4277.3	4364.6	4391.2
32.5°	4025.3	4054.4	4134.3	4233.7	4265.2
35°	3860.5	3894.4	3993.8	4102.8	4136.8
37.5°	3678.7	3732.1	3836.3	3962.3	3998.6
40°	3511.5	3560.0	3673.9	3814.5	3853.2
42.5°	3320.1	3380.7	3518.8	3661.8	3710.2
45°	3131.0	3208.6	3356.4	3506.7	3567.3
47.5°	2954.1	3017.1	3191.6	3361.3	3414.6
50°	2760.3	2833.0	3017.1	3196.5	3252.2
52.5°	2568.8	2656.1	2842.7	3031.7	3092.3
55°	2372.5	2474.3	2673.0	2869.3	2934.8
57.5°	2183.5	2285.3	2491.3	2699.7	2767.5
60°	1982.4	2091.4	2319.2	2520.3	2605.2
62.5°	1788.5	1897.5	2137.5	2355.6	2435.5
65°	1597.0	1706.1	1953.3	2176.2	2258.6
67.5°	1398.3	1517.1	1781.2	1996.9	2076.9
70°	1216.6	1330.5	1597.0	1827.3	1912.1
72.5°	1008.1	1143.9	1415.3	1643.1	1723.0
75°	809.4	962.1	1233.5	1446.8	1504.9
77.5°	625.2	777.9	1049.3	1209.3	1245.6
80°	453.2	608.3	833.7	945.1	974.2
82.5°	293.2	453.2	603.4	678.6	688.2
85°	162.4	281.1	358.7	380.5	363.5
87.5°	58.2	106.6	104.2	84.8	67.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)