

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: P474605

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474605
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-155VHE-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: 14251.7 lumens
Efficiency: N/A
Efficacy: 125.0 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

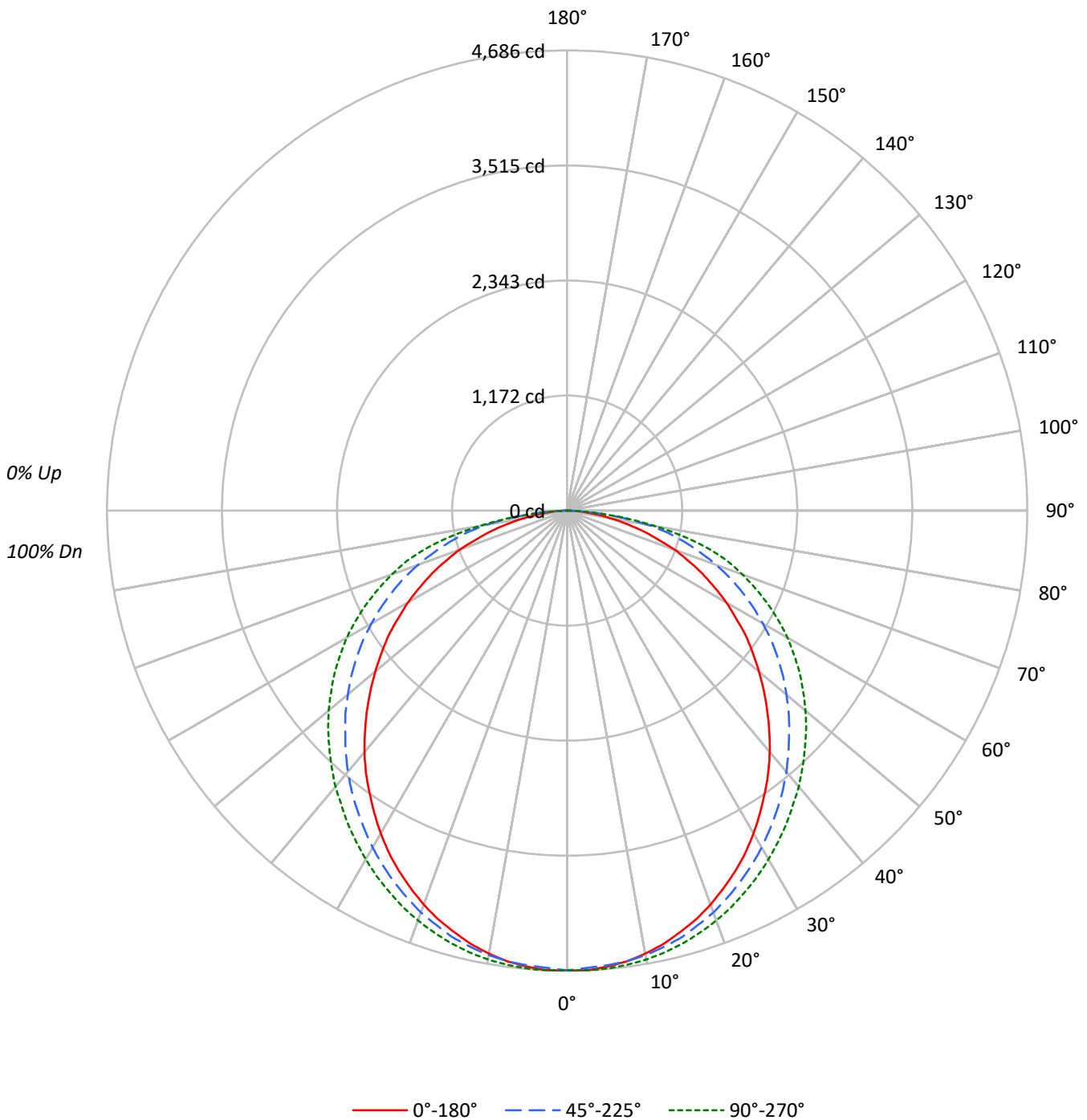
Input Watts (W): 114
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	12597	12597	12597
5°	12596	12559	12645
10°	12518	12561	12686
15°	12382	12534	12705
20°	12225	12473	12721
25°	12027	12385	12723
30°	11794	12310	12742
35°	11526	12237	12790
40°	11278	12197	12893
45°	10970	12165	13032
50°	10676	12201	13268
55°	10426	12284	13566
60°	10073	12376	13945
65°	9670	12526	14367
70°	9172	12701	14940
75°	8215	12878	15435
80°	6916	12913	14007
85°	5132	9772	9210



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	443.6	3.1
10°-20°	1271.4	8.9
20°-30°	1924.6	13.5
30°-40°	2328.2	16.3
40°-50°	2457.6	17.2
50°-60°	2317.5	16.3
60°-70°	1910.7	13.4
70°-80°	1253.4	8.8
80°-90°	344.6	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°	3639.6	25.5
0°-40°	5967.8	41.9
0°-60°	10743.0	75.4
0°-90°	14251.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14251.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4681	4681	4681	4681	4681	
5°	4663	4663	4649	4681	4681	443
15°	4444	4470	4499	4551	4561	1254
25°	4050	4101	4171	4258	4285	1865
35°	3509	3600	3725	3852	3893	2196
45°	2882	3012	3197	3368	3424	2224
55°	2222	2379	2618	2814	2892	1980
65°	1519	1701	1967	2177	2256	1500
75°	790	993	1239	1434	1484	835
85°	166	287	316	307	298	206
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4681.2	4681.2	4681.2	4681.2	4681.2
2.5°	4685.8	4681.2	4660.7	4688.1	4685.8
5°	4663.0	4663.0	4649.4	4681.2	4681.2
7.5°	4631.1	4633.4	4628.9	4665.3	4665.3
10°	4581.0	4590.2	4597.0	4638.0	4642.5
12.5°	4521.8	4537.8	4551.4	4601.5	4606.1
15°	4444.4	4469.5	4499.1	4551.4	4560.6
17.5°	4364.7	4394.3	4426.2	4494.5	4505.9
20°	4269.1	4303.3	4355.6	4423.9	4442.2
22.5°	4162.1	4209.9	4264.6	4346.5	4369.3
25°	4050.5	4100.6	4171.2	4257.7	4285.1
27.5°	3929.9	3989.1	4068.8	4168.9	4198.5
30°	3795.5	3863.8	3961.7	4068.8	4100.6
32.5°	3654.4	3734.1	3843.3	3961.7	3998.2
35°	3508.6	3599.7	3724.9	3852.5	3893.4
37.5°	3365.2	3456.3	3604.3	3738.6	3777.3
40°	3210.4	3310.6	3472.2	3615.7	3670.3
42.5°	3046.4	3164.8	3335.6	3495.0	3547.4
45°	2882.5	3012.3	3196.7	3367.5	3424.4
47.5°	2716.3	2859.7	3062.4	3235.4	3301.4
50°	2550.1	2702.6	2914.4	3101.1	3169.4
52.5°	2381.6	2541.0	2770.9	2969.0	3030.5
55°	2222.2	2379.3	2618.4	2814.2	2891.6
57.5°	2037.8	2215.4	2468.1	2666.2	2741.3
60°	1871.6	2044.6	2299.6	2509.1	2591.1
62.5°	1691.7	1869.3	2138.0	2347.4	2427.1
65°	1518.7	1700.8	1967.2	2176.7	2256.4
67.5°	1332.0	1523.2	1796.4	1999.1	2076.5
70°	1165.8	1345.6	1614.3	1821.5	1898.9
72.5°	963.1	1168.0	1425.3	1630.2	1714.5
75°	790.1	992.7	1238.6	1434.4	1484.5
77.5°	607.9	810.6	1054.2	1181.7	1215.8
80°	446.3	637.5	833.3	901.6	903.9
82.5°	300.5	469.0	580.6	614.8	610.2
85°	166.2	286.9	316.5	307.4	298.3
87.5°	68.3	95.6	77.4	54.6	43.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)