

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: P474655

Luminaire Tested: **24CZ2-155VHE-SQR-UNV-L835-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474655  
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-L835-CD1-U  
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SQUARE LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14768.6 lumens  
Efficiency: N/A  
Efficacy: 129.5 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

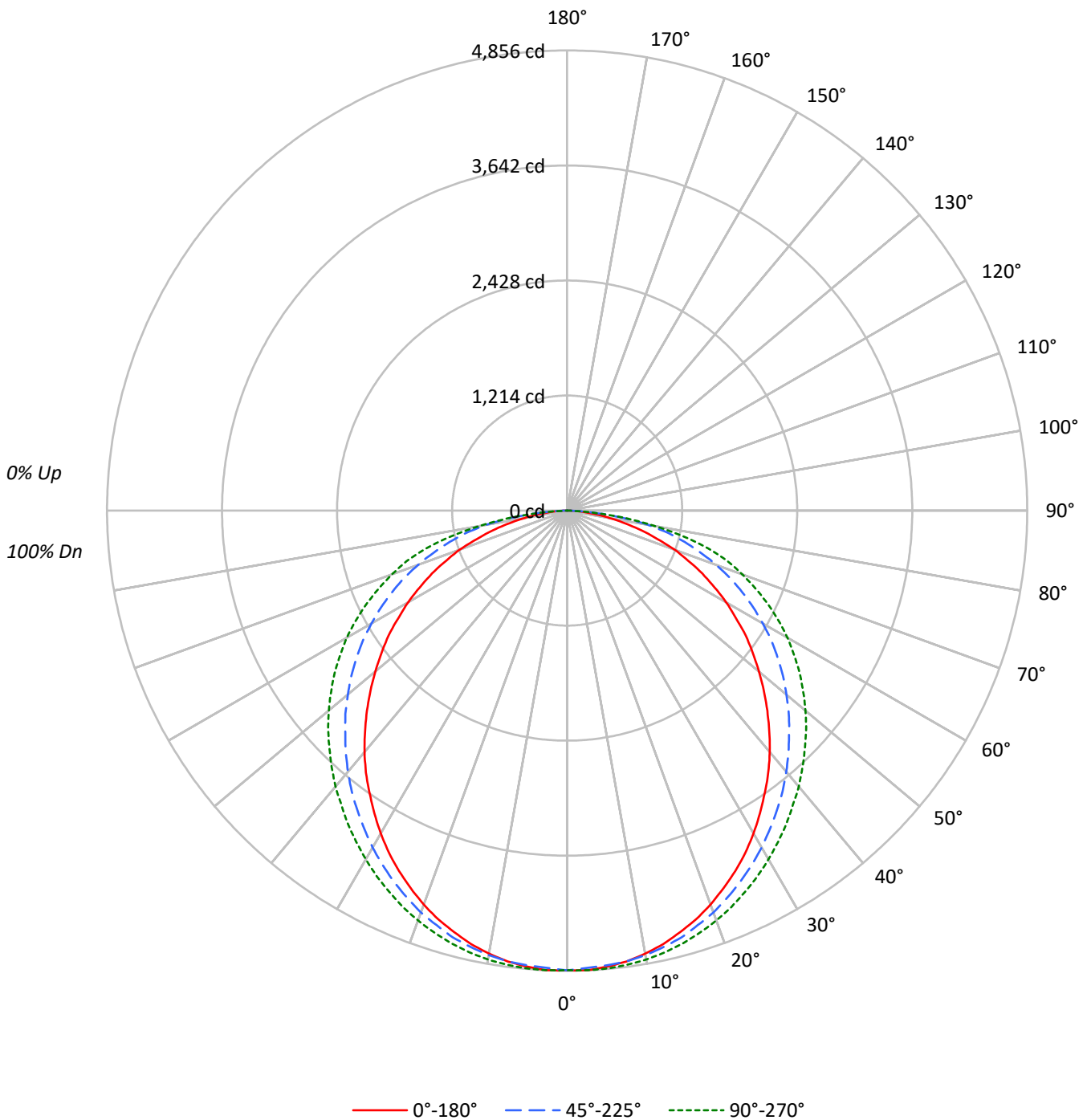
Input Watts (W): 114  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	13054	13054	13054
5°	13053	13015	13104
10°	12972	13017	13146
15°	12831	12989	13166
20°	12669	12926	13182
25°	12463	12834	13185
30°	12222	12757	13204
35°	11944	12680	13254
40°	11686	12639	13361
45°	11368	12607	13505
50°	11063	12643	13749
55°	10804	12730	14058
60°	10438	12825	14451
65°	10020	12981	14888
70°	9504	13161	15482
75°	8512	13345	15995
80°	7167	13383	14516
85°	5317	10127	9544



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	459.7	3.1
10°-20°	1317.5	8.9
20°-30°	1994.4	13.5
30°-40°	2412.7	16.3
40°-50°	2546.7	17.2
50°-60°	2401.6	16.3
60°-70°	1980.0	13.4
70°-80°	1298.9	8.8
80°-90°	357.1	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°	3771.6	25.5
0°-40°	6184.3	41.9
0°-60°	11132.6	75.4
0°-90°	14768.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14768.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4851	4851	4851	4851	4851	
5°	4832	4832	4818	4851	4851	459
15°	4606	4632	4662	4716	4726	1299
25°	4197	4249	4322	4412	4440	1933
35°	3636	3730	3860	3992	4035	2276
45°	2987	3122	3313	3490	3549	2305
55°	2303	2466	2713	2916	2996	2051
65°	1574	1762	2039	2256	2338	1554
75°	819	1029	1284	1486	1538	865
85°	172	297	328	318	309	214
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4851.0	4851.0	4851.0	4851.0	4851.0
2.5°	4855.7	4851.0	4829.8	4858.1	4855.7
5°	4832.1	4832.1	4818.0	4851.0	4851.0
7.5°	4799.1	4801.5	4796.7	4834.5	4834.5
10°	4747.2	4756.6	4763.7	4806.2	4810.9
12.5°	4685.9	4702.4	4716.5	4768.4	4773.2
15°	4605.6	4631.6	4662.3	4716.5	4726.0
17.5°	4523.1	4553.7	4586.8	4657.5	4669.3
20°	4424.0	4459.3	4513.6	4584.4	4603.3
22.5°	4313.1	4362.6	4419.2	4504.2	4527.8
25°	4197.4	4249.4	4322.5	4412.2	4440.5
27.5°	4072.4	4133.7	4216.3	4320.1	4350.8
30°	3933.2	4004.0	4105.4	4216.3	4249.4
32.5°	3786.9	3869.5	3982.7	4105.4	4143.2
35°	3635.9	3730.3	3860.0	3992.2	4034.6
37.5°	3487.3	3581.6	3735.0	3874.2	3914.3
40°	3326.8	3430.6	3598.1	3746.8	3803.4
42.5°	3156.9	3279.6	3456.6	3621.7	3676.0
45°	2987.1	3121.5	3312.7	3489.6	3548.6
47.5°	2814.8	2963.5	3173.5	3352.8	3421.2
50°	2642.6	2800.7	3020.1	3213.6	3284.3
52.5°	2468.0	2633.1	2871.4	3076.7	3140.4
55°	2302.8	2465.6	2713.4	2916.3	2996.5
57.5°	2111.7	2295.7	2557.6	2762.9	2840.8
60°	1939.5	2118.8	2383.0	2600.1	2685.0
62.5°	1753.1	1937.1	2215.5	2432.6	2515.2
65°	1573.7	1762.5	2038.6	2255.6	2338.2
67.5°	1380.3	1578.5	1861.6	2071.6	2151.8
70°	1208.0	1394.4	1672.8	1887.6	1967.8
72.5°	998.0	1210.4	1477.0	1689.4	1776.7
75°	818.7	1028.7	1283.5	1486.4	1538.4
77.5°	630.0	840.0	1092.4	1224.6	1259.9
80°	462.5	660.6	863.6	934.3	936.7
82.5°	311.4	486.0	601.7	637.0	632.3
85°	172.2	297.3	328.0	318.5	309.1
87.5°	70.8	99.1	80.2	56.6	44.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)