

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: P473847

Luminaire Tested: **24CZ2-115VHE-UNV-L835-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P473847  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-115VHE-UNV-L835-CD1-U  
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11509.8 lumens  
Efficiency: N/A  
Efficacy: 142.8 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

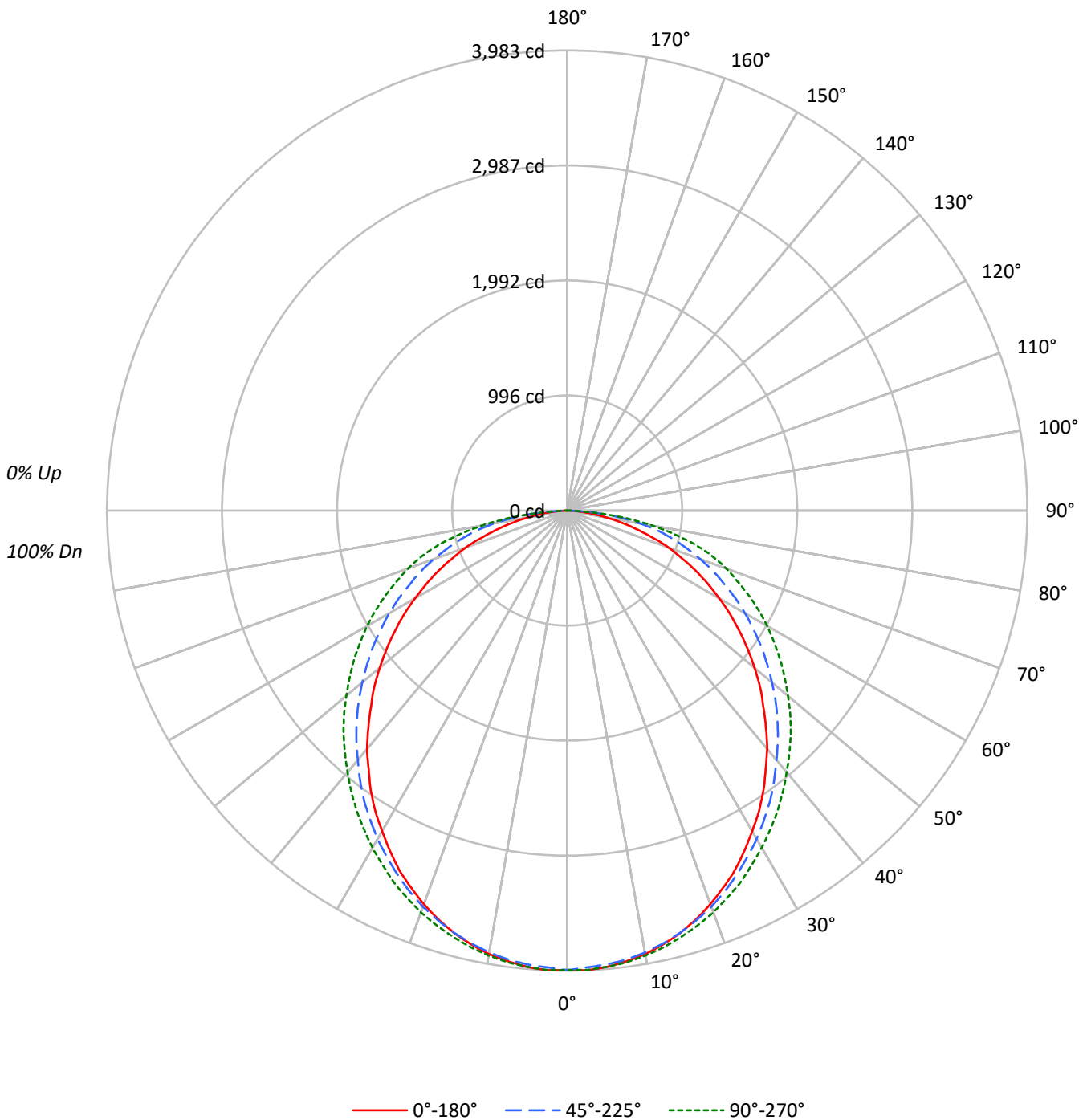
Input Watts (W): 80.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	5352	5352	5352
5°	5354	5327	5354
10°	5325	5307	5343
15°	5271	5268	5320
20°	5192	5224	5298
25°	5101	5159	5273
30°	4978	5099	5235
35°	4865	5033	5214
40°	4732	4951	5193
45°	4571	4900	5208
50°	4433	4846	5223
55°	4270	4811	5282
60°	4093	4789	5379
65°	3901	4771	5517
70°	3672	4821	5771
75°	3229	4920	6003
80°	2694	4957	5792
85°	1924	4248	4306



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	376.0	3.3
10°-20°	1071.0	9.3
20°-30°	1606.6	14.0
30°-40°	1918.2	16.7
40°-50°	1986.8	17.3
50°-60°	1829.1	15.9
60°-70°	1475.5	12.8
70°-80°	964.0	8.4
80°-90°	282.6	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°	3053.6	26.5
0°-40°	4971.7	43.2
0°-60°	8787.7	76.3
0°-90°	11509.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11509.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3977	3977	3977	3977	3977	
5°	3964	3961	3944	3966	3964	376
15°	3784	3784	3782	3819	3819	1066
25°	3436	3444	3475	3538	3552	1580
35°	2962	2988	3064	3148	3174	1850
45°	2402	2462	2575	2691	2737	1857
55°	1820	1898	2051	2202	2252	1629
65°	1225	1309	1499	1670	1733	1212
75°	621	738	946	1110	1155	663
85°	125	216	275	292	279	154
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3977.4	3977.4	3977.4	3977.4	3977.4
2.5°	3982.9	3977.4	3956.9	3981.1	3979.2
5°	3964.3	3960.6	3943.9	3966.2	3964.3
7.5°	3934.6	3932.7	3919.7	3943.9	3943.9
10°	3897.4	3893.7	3884.4	3912.3	3910.4
12.5°	3845.3	3843.5	3837.9	3871.4	3869.5
15°	3784.0	3784.0	3782.1	3819.3	3819.3
17.5°	3709.6	3711.5	3718.9	3761.7	3763.5
20°	3625.9	3633.4	3648.2	3696.6	3700.3
22.5°	3531.1	3546.0	3566.4	3620.4	3625.9
25°	3436.3	3443.7	3475.3	3538.5	3551.6
27.5°	3321.0	3339.6	3380.5	3445.6	3458.6
30°	3203.8	3229.9	3281.9	3348.9	3369.3
32.5°	3088.5	3110.9	3172.2	3248.5	3272.6
35°	2962.1	2988.1	3064.4	3148.1	3174.1
37.5°	2822.6	2863.6	2943.5	3040.2	3068.1
40°	2694.3	2731.5	2818.9	2926.8	2956.5
42.5°	2547.4	2593.9	2699.9	2809.6	2846.8
45°	2402.4	2461.9	2575.3	2690.6	2737.1
47.5°	2266.7	2315.0	2448.9	2579.1	2620.0
50°	2117.9	2173.7	2315.0	2452.6	2495.4
52.5°	1971.0	2038.0	2181.1	2326.2	2372.7
55°	1820.4	1898.5	2051.0	2201.6	2251.8
57.5°	1675.4	1753.5	1911.5	2071.4	2123.5
60°	1521.0	1604.7	1779.5	1933.8	1998.9
62.5°	1372.3	1455.9	1640.0	1807.4	1868.7
65°	1225.4	1309.1	1498.7	1669.8	1733.0
67.5°	1072.9	1164.0	1366.7	1532.2	1593.5
70°	933.4	1020.8	1225.4	1402.0	1467.1
72.5°	773.5	877.7	1085.9	1260.7	1322.1
75°	621.1	738.2	946.5	1110.1	1154.7
77.5°	479.7	596.9	805.1	927.9	955.8
80°	347.7	466.7	639.7	725.2	747.5
82.5°	225.0	347.7	463.0	520.6	528.1
85°	124.6	215.7	275.2	291.9	278.9
87.5°	44.6	81.8	80.0	65.1	52.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)