

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: P473997

Luminaire Tested: **24CZ2-115VHE-S-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473997
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-115VHE-S-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11329.4 lumens
Efficiency: N/A
Efficacy: 140.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

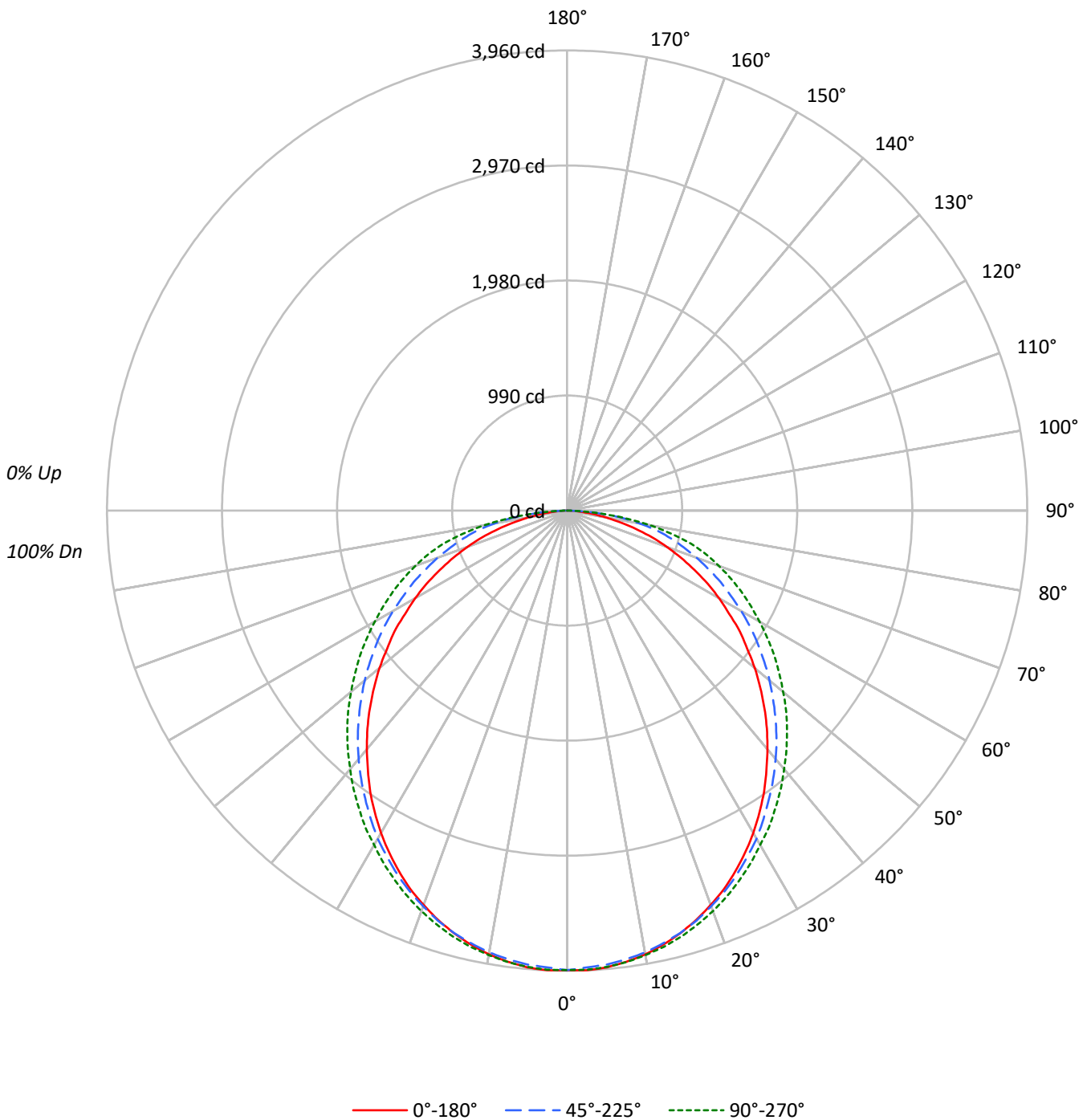
Input Watts (W): 80.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	38	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5321	5321	5321
5°	5329	5296	5323
10°	5299	5276	5306
15°	5244	5241	5285
20°	5172	5188	5252
25°	5086	5130	5210
30°	4979	5065	5161
35°	4854	4976	5132
40°	4710	4903	5102
45°	4568	4826	5092
50°	4413	4760	5079
55°	4256	4701	5107
60°	4061	4657	5143
65°	3845	4639	5267
70°	3587	4663	5454
75°	3192	4798	5747
80°	2610	4902	5609
85°	1839	4281	4367



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	373.9	3.3
10°-20°	1064.8	9.4
20°-30°	1596.1	14.1
30°-40°	1901.0	16.8
40°-50°	1960.1	17.3
50°-60°	1788.6	15.8
60°-70°	1430.2	12.6
70°-80°	934.2	8.2
80°-90°	280.5	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°	3034.7	26.8
0°-40°	4935.7	43.6
0°-60°	8684.4	76.7
0°-90°	11329.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11329.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3954	3954	3954	3954	3954	
5°	3945	3938	3921	3945	3941	374
15°	3765	3766	3763	3794	3794	1061
25°	3426	3432	3456	3506	3510	1577
35°	2955	2976	3030	3106	3124	1846
45°	2401	2443	2536	2642	2676	1851
55°	1814	1866	2004	2136	2177	1616
65°	1208	1290	1457	1600	1654	1198
75°	614	716	923	1072	1105	653
85°	119	214	277	283	283	151
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3954.5	3954.5	3954.5	3954.5	3954.5
2.5°	3960.0	3954.5	3934.0	3958.2	3954.5
5°	3945.2	3937.7	3921.0	3945.2	3941.4
7.5°	3915.4	3911.7	3894.9	3922.8	3919.1
10°	3878.2	3874.4	3861.4	3889.3	3883.7
12.5°	3826.1	3824.2	3814.9	3848.4	3844.7
15°	3764.6	3766.5	3762.8	3794.4	3794.4
17.5°	3693.9	3692.1	3699.5	3738.6	3734.9
20°	3612.0	3613.9	3623.2	3667.9	3667.9
22.5°	3526.4	3524.6	3545.1	3589.7	3593.4
25°	3426.0	3431.5	3455.7	3506.0	3509.7
27.5°	3318.0	3327.3	3357.1	3414.8	3420.4
30°	3204.5	3215.7	3260.3	3314.3	3321.7
32.5°	3079.8	3104.0	3145.0	3213.8	3232.4
35°	2955.1	2975.6	3029.6	3105.9	3124.5
37.5°	2817.4	2850.9	2912.3	2996.1	3020.3
40°	2681.6	2715.1	2791.4	2878.8	2904.9
42.5°	2543.9	2579.2	2666.7	2765.3	2793.2
45°	2400.6	2443.4	2536.4	2642.5	2676.0
47.5°	2253.6	2303.8	2404.3	2519.7	2556.9
50°	2108.4	2158.7	2274.0	2393.1	2426.6
52.5°	1952.1	2015.4	2138.2	2266.6	2300.1
55°	1814.4	1866.5	2004.2	2136.3	2177.3
57.5°	1652.5	1723.2	1870.2	2004.2	2043.3
60°	1509.2	1574.3	1730.7	1866.5	1911.2
62.5°	1364.1	1431.0	1587.4	1741.8	1782.8
65°	1207.7	1289.6	1457.1	1600.4	1654.4
67.5°	1058.9	1144.5	1315.7	1468.3	1524.1
70°	911.9	999.3	1185.4	1341.7	1386.4
72.5°	766.7	857.9	1051.4	1204.0	1256.1
75°	614.1	716.5	923.0	1071.9	1105.4
77.5°	470.8	584.3	792.8	893.2	917.4
80°	336.8	461.5	632.7	705.3	723.9
82.5°	221.4	342.4	472.7	511.8	506.2
85°	119.1	214.0	277.3	282.9	282.9
87.5°	46.5	85.6	87.5	67.0	63.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)