

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: P473797

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473797
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-115VHE-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: 11107.0 lumens
Efficiency: N/A
Efficacy: 137.8 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

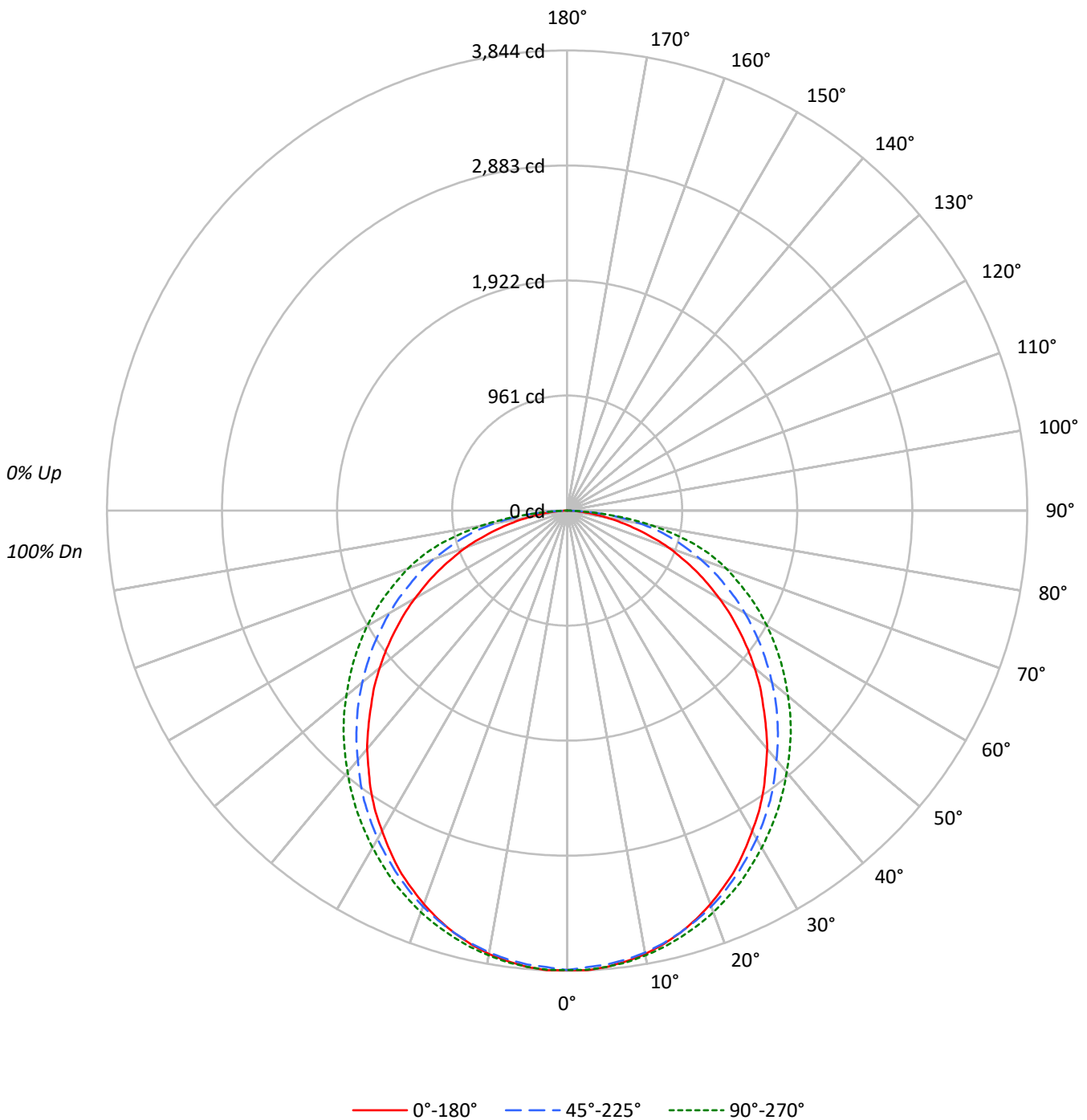
Input Watts (W): 80.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	5164	5164	5164
5°	5167	5140	5167
10°	5138	5121	5156
15°	5086	5084	5134
20°	5010	5041	5113
25°	4923	4979	5088
30°	4803	4921	5051
35°	4695	4857	5031
40°	4567	4778	5011
45°	4411	4729	5026
50°	4278	4676	5040
55°	4121	4643	5097
60°	3950	4621	5191
65°	3765	4605	5324
70°	3544	4652	5570
75°	3116	4748	5793
80°	2600	4783	5589
85°	1856	4100	4156



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	362.8	3.3
10°-20°	1033.5	9.3
20°-30°	1550.4	14.0
30°-40°	1851.0	16.7
40°-50°	1917.3	17.3
50°-60°	1765.1	15.9
60°-70°	1423.8	12.8
70°-80°	930.3	8.4
80°-90°	272.7	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°	2946.7	26.5
0°-40°	4797.7	43.2
0°-60°	8480.1	76.3
0°-90°	11107.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11107.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3838	3838	3838	3838	3838	
5°	3826	3822	3806	3827	3826	363
15°	3652	3652	3650	3686	3686	1029
25°	3316	3323	3354	3415	3427	1525
35°	2858	2884	2957	3038	3063	1786
45°	2318	2376	2485	2596	2641	1792
55°	1757	1832	1979	2124	2173	1572
65°	1182	1263	1446	1611	1672	1169
75°	599	712	913	1071	1114	640
85°	120	208	266	282	269	149
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3838.2	3838.2	3838.2	3838.2	3838.2
2.5°	3843.5	3838.2	3818.4	3841.7	3840.0
5°	3825.6	3822.0	3805.9	3827.4	3825.6
7.5°	3796.9	3795.1	3782.5	3805.9	3805.9
10°	3761.0	3757.4	3748.4	3775.4	3773.6
12.5°	3710.8	3709.0	3703.6	3735.9	3734.1
15°	3651.5	3651.5	3649.7	3685.6	3685.6
17.5°	3579.8	3581.6	3588.7	3630.0	3631.8
20°	3499.0	3506.2	3520.6	3567.2	3570.8
22.5°	3407.5	3421.9	3441.6	3493.6	3499.0
25°	3316.0	3323.2	3353.7	3414.7	3427.2
27.5°	3204.7	3222.7	3262.2	3325.0	3337.5
30°	3091.7	3116.8	3167.1	3231.7	3251.4
32.5°	2980.4	3002.0	3061.2	3134.8	3158.1
35°	2858.4	2883.6	2957.1	3037.9	3063.0
37.5°	2723.9	2763.3	2840.5	2933.8	2960.7
40°	2600.0	2635.9	2720.3	2824.3	2853.0
42.5°	2458.3	2503.1	2605.4	2711.3	2747.2
45°	2318.3	2375.7	2485.2	2596.5	2641.3
47.5°	2187.3	2234.0	2363.2	2488.8	2528.3
50°	2043.8	2097.6	2234.0	2366.8	2408.0
52.5°	1902.0	1966.6	2104.8	2244.8	2289.6
55°	1756.7	1832.1	1979.2	2124.5	2173.0
57.5°	1616.7	1692.1	1844.6	1998.9	2049.2
60°	1467.8	1548.5	1717.2	1866.1	1928.9
62.5°	1324.2	1405.0	1582.6	1744.1	1803.3
65°	1182.5	1263.2	1446.3	1611.3	1672.4
67.5°	1035.4	1123.3	1318.9	1478.6	1537.8
70°	900.8	985.1	1182.5	1353.0	1415.8
72.5°	746.5	846.9	1047.9	1216.6	1275.8
75°	599.3	712.4	913.3	1071.2	1114.3
77.5°	462.9	576.0	777.0	895.4	922.3
80°	335.5	450.4	617.3	699.8	721.3
82.5°	217.1	335.5	446.8	502.4	509.6
85°	120.2	208.1	265.6	281.7	269.2
87.5°	43.1	79.0	77.2	62.8	50.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)