

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: P473804

Luminaire Tested: **24CZ2-150VHE-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473804
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-150VHE-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: 14501.8 lumens
Efficiency: N/A
Efficacy: 132.2 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

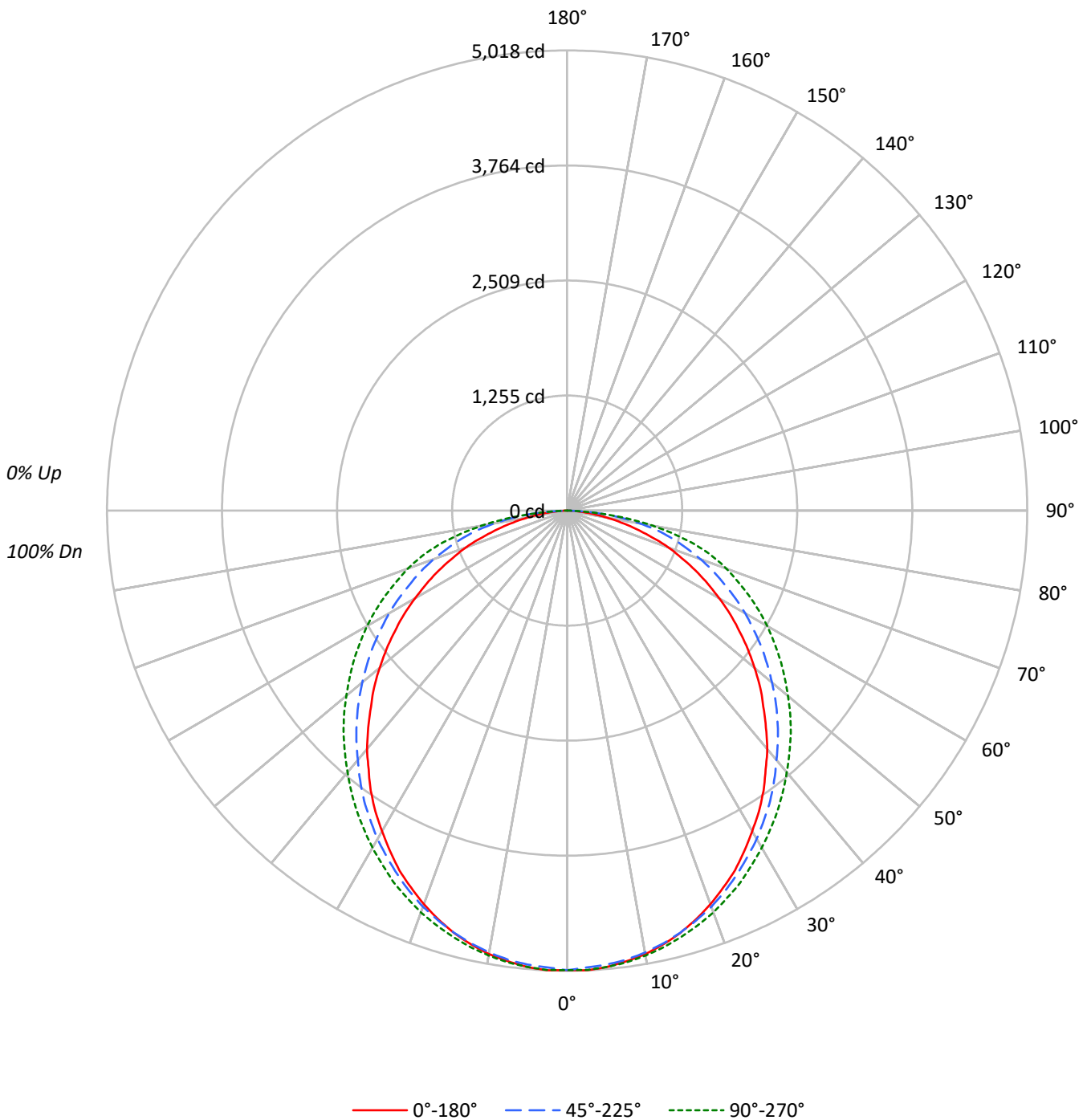
Input Watts (W): 109.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6743	6743	6743
5°	6746	6711	6746
10°	6709	6687	6731
15°	6641	6638	6703
20°	6541	6582	6676
25°	6428	6501	6643
30°	6272	6424	6596
35°	6130	6342	6569
40°	5962	6238	6543
45°	5760	6174	6562
50°	5586	6105	6581
55°	5380	6062	6655
60°	5157	6033	6777
65°	4915	6012	6952
70°	4627	6074	7272
75°	4068	6199	7563
80°	3395	6244	7297
85°	2424	5352	5425



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	473.7	3.3
10°-20°	1349.3	9.3
20°-30°	2024.3	14.0
30°-40°	2416.8	16.7
40°-50°	2503.3	17.3
50°-60°	2304.6	15.9
60°-70°	1859.0	12.8
70°-80°	1214.6	8.4
80°-90°	356.1	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°	3847.3	26.5
0°-40°	6264.1	43.2
0°-60°	11072.0	76.3
0°-90°	14501.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14501.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5011	5011	5011	5011	5011	
5°	4995	4990	4969	4997	4995	474
15°	4768	4768	4765	4812	4812	1343
25°	4330	4339	4379	4458	4475	1991
35°	3732	3765	3861	3966	3999	2331
45°	3027	3102	3245	3390	3449	2340
55°	2294	2392	2584	2774	2837	2053
65°	1544	1649	1888	2104	2184	1527
75°	782	930	1192	1399	1455	835
85°	157	272	347	368	351	195
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5011.3	5011.3	5011.3	5011.3	5011.3
2.5°	5018.3	5011.3	4985.5	5016.0	5013.6
5°	4994.9	4990.2	4969.1	4997.2	4994.9
7.5°	4957.4	4955.1	4938.7	4969.1	4969.1
10°	4910.5	4905.9	4894.1	4929.3	4926.9
12.5°	4844.9	4842.6	4835.6	4877.7	4875.4
15°	4767.6	4767.6	4765.3	4812.1	4812.1
17.5°	4673.9	4676.3	4685.6	4739.5	4741.9
20°	4568.5	4577.9	4596.6	4657.5	4662.2
22.5°	4449.0	4467.7	4493.5	4561.5	4568.5
25°	4329.5	4338.9	4378.7	4458.4	4474.8
27.5°	4184.3	4207.7	4259.2	4341.2	4357.6
30°	4036.7	4069.5	4135.1	4219.4	4245.2
32.5°	3891.4	3919.5	3996.8	4092.9	4123.4
35°	3732.1	3764.9	3861.0	3966.4	3999.2
37.5°	3556.4	3607.9	3708.7	3830.5	3865.6
40°	3394.7	3441.6	3551.7	3687.6	3725.1
42.5°	3209.7	3268.2	3401.8	3540.0	3586.8
45°	3026.9	3101.9	3244.8	3390.1	3448.6
47.5°	2855.9	2916.8	3085.5	3249.5	3301.0
50°	2668.5	2738.7	2916.8	3090.2	3144.1
52.5°	2483.4	2567.7	2748.1	2930.9	2989.4
55°	2293.6	2392.0	2584.1	2773.9	2837.1
57.5°	2110.9	2209.3	2408.4	2609.9	2675.5
60°	1916.4	2021.8	2242.1	2436.5	2518.5
62.5°	1729.0	1834.4	2066.4	2277.2	2354.5
65°	1543.9	1649.3	1888.3	2103.8	2183.5
67.5°	1351.8	1466.6	1722.0	1930.5	2007.8
70°	1176.1	1286.2	1543.9	1766.5	1848.5
72.5°	974.6	1105.8	1368.2	1588.4	1665.7
75°	782.5	930.1	1192.5	1398.7	1454.9
77.5°	604.4	752.0	1014.4	1169.1	1204.2
80°	438.1	588.0	805.9	913.7	941.8
82.5°	283.5	438.1	583.4	656.0	665.4
85°	157.0	271.8	346.7	367.8	351.4
87.5°	56.2	103.1	100.7	82.0	65.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)