

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: P474204

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474204
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-150VHE-RDP-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP
INSERT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9716.5 lumens
Efficiency: N/A
Efficacy: 88.6 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

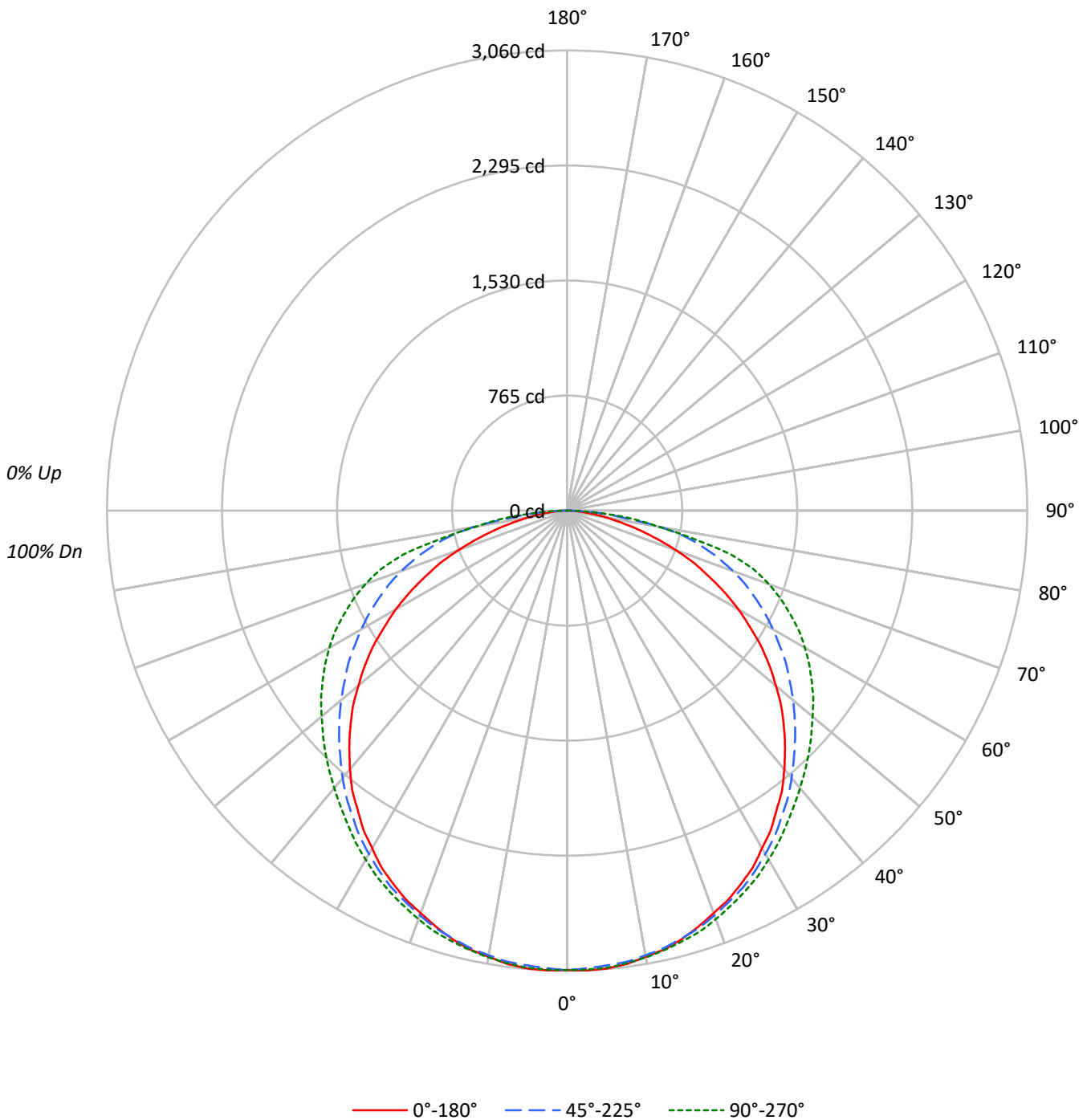
Input Watts (W): 109.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4111	4111	4111
5°	4127	4101	4121
10°	4116	4102	4122
15°	4109	4102	4129
20°	4078	4099	4141
25°	4064	4107	4150
30°	4028	4096	4163
35°	3989	4085	4180
40°	3945	4080	4232
45°	3879	4081	4328
50°	3793	4106	4459
55°	3696	4172	4658
60°	3541	4254	4915
65°	3315	4403	5216
70°	3014	4608	5611
75°	2555	4861	5863
80°	2018	4891	4741
85°	1488	3722	4168



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	289.9	3.0
10°-20°	834.2	8.6
20°-30°	1275.6	13.1
30°-40°	1559.4	16.0
40°-50°	1662.1	17.1
50°-60°	1589.1	16.4
60°-70°	1346.2	13.9
70°-80°	904.7	9.3
80°-90°	255.3	2.6
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°	2399.7	24.7
0°-40°	3959.1	40.7
0°-60°	7210.3	74.2
0°-90°	9716.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9716.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3056	3056	3056	3056	3056	
5°	3056	3051	3036	3051	3051	290
15°	2950	2950	2945	2969	2964	832
25°	2738	2747	2766	2790	2795	1262
35°	2429	2448	2487	2535	2545	1522
45°	2039	2072	2145	2236	2274	1572
55°	1576	1634	1778	1918	1986	1404
65°	1041	1147	1383	1566	1638	1034
75°	491	670	935	1094	1128	526
85°	96	198	241	260	270	119
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3055.7	3055.7	3055.7	3055.7	3055.7
2.5°	3060.5	3060.5	3046.1	3055.7	3055.7
5°	3055.7	3050.9	3036.4	3050.9	3050.9
7.5°	3041.2	3036.4	3026.8	3041.2	3036.4
10°	3012.3	3012.3	3002.7	3017.1	3017.1
12.5°	2988.2	2983.4	2978.6	2997.8	2993.0
15°	2949.6	2949.6	2944.8	2968.9	2964.1
17.5°	2901.4	2906.2	2911.0	2930.3	2935.2
20°	2848.4	2858.0	2862.8	2891.8	2891.8
22.5°	2800.1	2805.0	2814.6	2843.5	2843.5
25°	2737.5	2747.1	2766.4	2790.5	2795.3
27.5°	2674.8	2679.6	2703.7	2737.5	2742.3
30°	2592.8	2607.3	2636.2	2674.8	2679.6
32.5°	2520.5	2534.9	2568.7	2607.3	2616.9
35°	2428.8	2448.1	2486.7	2534.9	2544.6
37.5°	2346.9	2361.3	2409.6	2462.6	2477.1
40°	2246.1	2274.5	2322.8	2385.4	2409.6
42.5°	2144.8	2173.8	2231.6	2313.1	2342.1
45°	2038.7	2072.5	2144.8	2236.4	2274.5
47.5°	1932.7	1971.2	2053.2	2159.3	2202.7
50°	1812.1	1860.3	1961.6	2082.1	2130.4
52.5°	1696.4	1754.2	1865.2	2000.2	2062.9
55°	1575.8	1633.7	1778.4	1918.2	1985.7
57.5°	1440.8	1518.0	1677.1	1836.2	1908.6
60°	1315.9	1387.8	1580.7	1754.2	1826.6
62.5°	1180.9	1277.4	1484.2	1667.5	1739.8
65°	1041.1	1147.2	1383.0	1566.2	1638.5
67.5°	915.7	1031.4	1282.2	1464.9	1537.3
70°	766.2	910.9	1171.3	1354.0	1426.4
72.5°	626.4	785.5	1055.5	1234.0	1301.5
75°	491.4	669.8	935.0	1094.1	1127.9
77.5°	366.5	554.0	809.6	877.1	853.0
80°	260.4	443.6	631.2	597.4	611.9
82.5°	168.8	337.5	390.6	443.6	457.6
85°	96.4	197.7	241.1	260.4	270.0
87.5°	43.4	72.3	96.4	96.4	91.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)