

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: P474604

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474604
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-150VHE-SQR-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SQUARE LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13777.7 lumens
Efficiency: N/A
Efficacy: 125.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

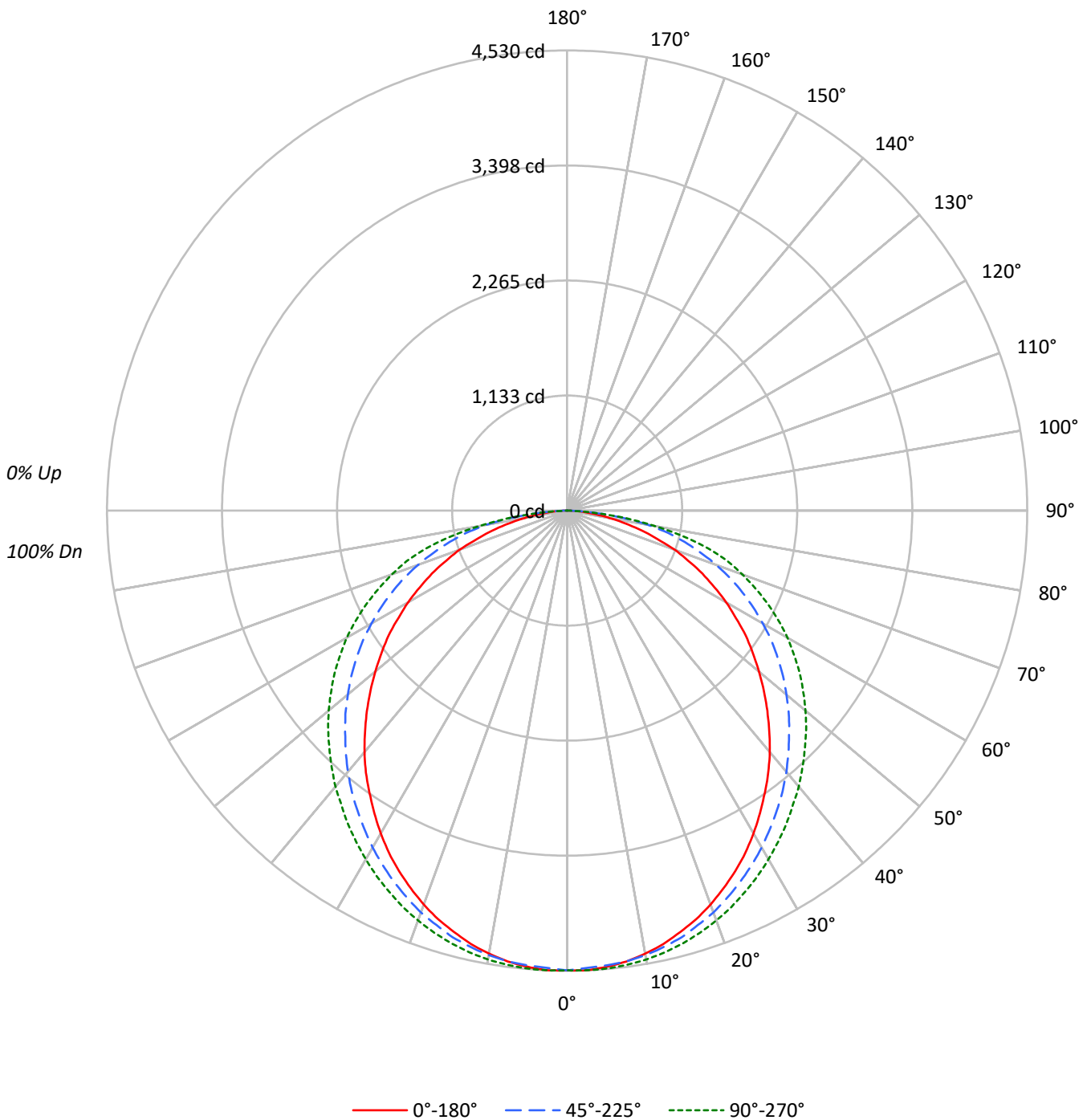
Input Watts (W): 109.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12178	12178	12178
5°	12177	12141	12225
10°	12101	12143	12264
15°	11970	12117	12283
20°	11819	12058	12298
25°	11627	11973	12300
30°	11402	11901	12318
35°	11143	11830	12365
40°	10902	11791	12464
45°	10605	11761	12599
50°	10321	11795	12827
55°	10079	11876	13115
60°	9738	11965	13481
65°	9349	12110	13889
70°	8867	12279	14443
75°	7941	12450	14921
80°	6685	12484	13543
85°	4962	9448	8901



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	428.9	3.1
10°-20°	1229.1	8.9
20°-30°	1860.6	13.5
30°-40°	2250.8	16.3
40°-50°	2375.9	17.2
50°-60°	2240.5	16.3
60°-70°	1847.1	13.4
70°-80°	1211.7	8.8
80°-90°	333.2	2.4
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°	3518.6	25.5
0°-40°	5769.4	41.9
0°-60°	10385.7	75.4
0°-90°	13777.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13777.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4526	4526	4526	4526	4526	
5°	4508	4508	4495	4526	4526	428
15°	4297	4321	4349	4400	4409	1212
25°	3916	3964	4032	4116	4142	1803
35°	3392	3480	3601	3724	3764	2123
45°	2787	2912	3090	3256	3310	2151
55°	2148	2300	2531	2721	2795	1914
65°	1468	1644	1902	2104	2181	1450
75°	764	960	1197	1387	1435	807
85°	161	277	306	297	288	199
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4525.5	4525.5	4525.5	4525.5	4525.5
2.5°	4529.9	4525.5	4505.7	4532.1	4529.9
5°	4507.9	4507.9	4494.7	4525.5	4525.5
7.5°	4477.1	4479.3	4474.9	4510.1	4510.1
10°	4428.7	4437.5	4444.1	4483.7	4488.1
12.5°	4371.5	4386.9	4400.1	4448.5	4452.9
15°	4296.6	4320.8	4349.4	4400.1	4408.9
17.5°	4219.6	4248.2	4279.0	4345.0	4356.1
20°	4127.1	4160.1	4210.8	4276.8	4294.4
22.5°	4023.7	4069.9	4122.7	4202.0	4224.0
25°	3915.8	3964.2	4032.5	4116.1	4142.5
27.5°	3799.2	3856.4	3933.4	4030.3	4058.9
30°	3669.3	3735.3	3830.0	3933.4	3964.2
32.5°	3532.8	3609.9	3715.5	3830.0	3865.2
35°	3392.0	3480.0	3601.1	3724.3	3763.9
37.5°	3253.3	3341.3	3484.4	3614.3	3651.7
40°	3103.6	3200.5	3356.7	3495.4	3548.2
42.5°	2945.1	3059.6	3224.7	3378.7	3429.4
45°	2786.6	2912.1	3090.4	3255.5	3310.5
47.5°	2626.0	2764.6	2960.5	3127.8	3191.6
50°	2465.3	2612.8	2817.5	2997.9	3064.0
52.5°	2302.4	2456.5	2678.8	2870.3	2929.7
55°	2148.3	2300.2	2531.3	2720.6	2795.4
57.5°	1970.0	2141.7	2386.0	2577.5	2650.2
60°	1809.3	1976.6	2223.1	2425.7	2504.9
62.5°	1635.4	1807.1	2066.9	2269.4	2346.4
65°	1468.2	1644.2	1901.8	2104.3	2181.3
67.5°	1287.7	1472.6	1736.7	1932.6	2007.4
70°	1127.0	1300.9	1560.6	1760.9	1835.7
72.5°	931.1	1129.2	1377.9	1576.0	1657.5
75°	763.8	959.7	1197.4	1386.7	1435.1
77.5°	587.7	783.6	1019.1	1142.4	1175.4
80°	431.4	616.3	805.6	871.7	873.9
82.5°	290.6	453.4	561.3	594.3	589.9
85°	160.7	277.3	306.0	297.2	288.3
87.5°	66.0	92.4	74.8	52.8	41.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)