

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: P474704

Luminaire Tested: **24CZ2-150VHE-SQR-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474704
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-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SQUARE LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14548.7 lumens
Efficiency: N/A
Efficacy: 132.6 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

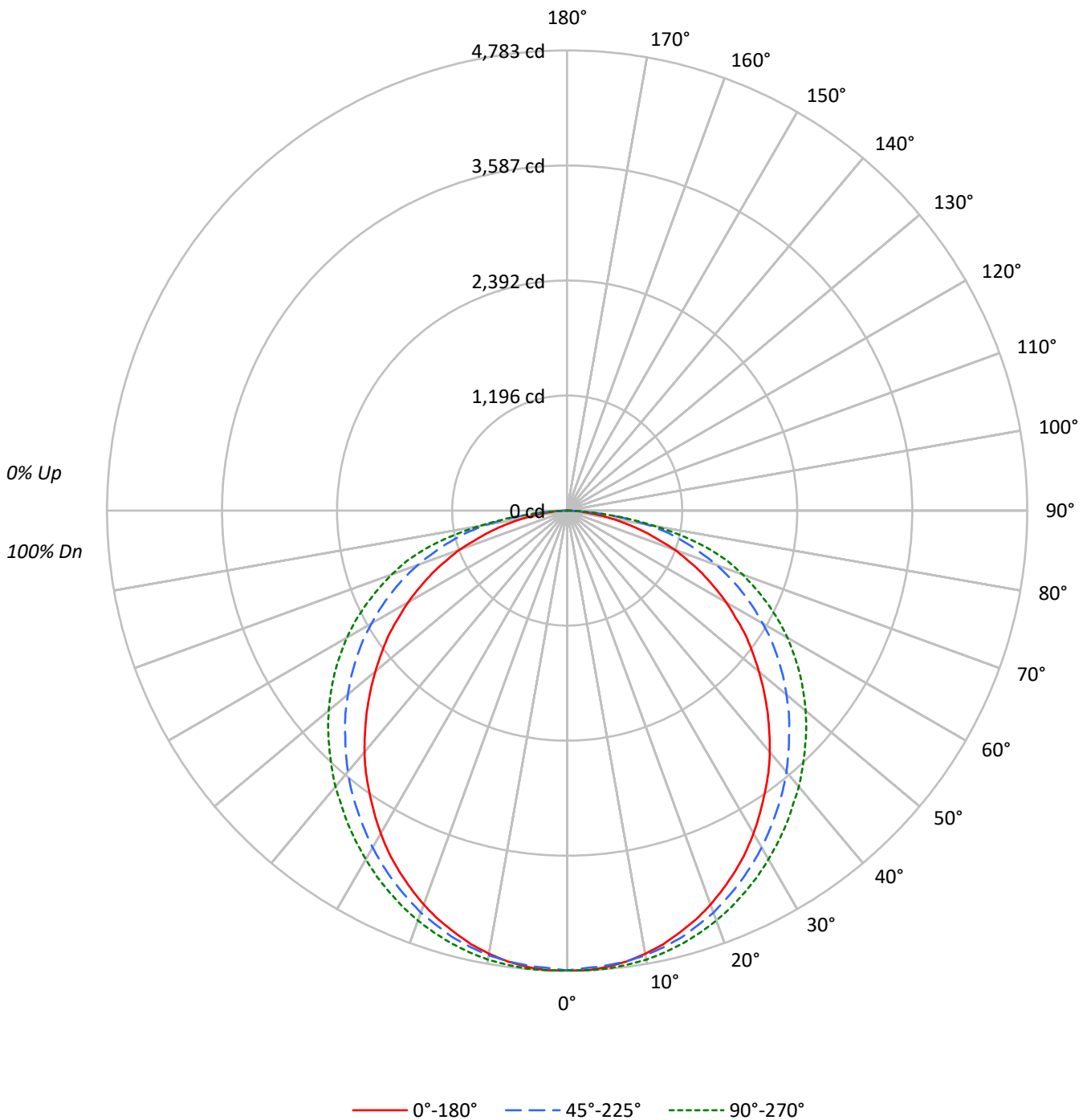
Input Watts (W): 109.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	12860	12860	12860
5°	12859	12821	12909
10°	12778	12823	12950
15°	12640	12795	12970
20°	12480	12733	12986
25°	12277	12643	12988
30°	12039	12567	13007
35°	11766	12492	13057
40°	11513	12452	13162
45°	11198	12419	13304
50°	10898	12455	13545
55°	10643	12541	13849
60°	10283	12635	14236
65°	9871	12787	14667
70°	9363	12966	15252
75°	8385	13146	15757
80°	7060	13183	14300
85°	5240	9976	9402



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	452.9	3.1
10°-20°	1297.9	8.9
20°-30°	1964.7	13.5
30°-40°	2376.7	16.3
40°-50°	2508.8	17.2
50°-60°	2365.8	16.3
60°-70°	1950.5	13.4
70°-80°	1279.6	8.8
80°-90°	351.8	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°	3715.5	25.5
0°-40°	6092.2	41.9
0°-60°	10966.9	75.4
0°-90°	14548.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14548.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4779	4779	4779	4779	4779	
5°	4760	4760	4746	4779	4779	452
15°	4537	4563	4593	4646	4656	1280
25°	4135	4186	4258	4346	4374	1904
35°	3582	3675	3803	3933	3975	2242
45°	2943	3075	3263	3438	3496	2271
55°	2268	2429	2673	2873	2952	2021
65°	1550	1736	2008	2222	2303	1531
75°	806	1013	1264	1464	1516	852
85°	170	293	323	314	304	211
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4778.8	4778.8	4778.8	4778.8	4778.8
2.5°	4783.4	4778.8	4757.9	4785.8	4783.4
5°	4760.2	4760.2	4746.2	4778.8	4778.8
7.5°	4727.6	4730.0	4725.3	4762.5	4762.5
10°	4676.5	4685.8	4692.8	4734.6	4739.3
12.5°	4616.1	4632.3	4646.3	4697.4	4702.1
15°	4537.1	4562.6	4592.8	4646.3	4655.6
17.5°	4455.7	4485.9	4518.5	4588.2	4599.8
20°	4358.1	4392.9	4446.4	4516.1	4534.7
22.5°	4248.8	4297.6	4353.4	4437.1	4460.4
25°	4134.9	4186.1	4258.1	4346.5	4374.4
27.5°	4011.8	4072.2	4153.5	4255.8	4286.0
30°	3874.6	3944.4	4044.3	4153.5	4186.1
32.5°	3730.5	3811.9	3923.4	4044.3	4081.5
35°	3581.8	3674.7	3802.6	3932.7	3974.6
37.5°	3435.3	3528.3	3679.4	3816.5	3856.0
40°	3277.3	3379.5	3544.6	3691.0	3746.8
42.5°	3109.9	3230.8	3405.1	3567.8	3621.3
45°	2942.6	3075.1	3263.3	3437.7	3495.8
47.5°	2772.9	2919.3	3126.2	3302.8	3370.2
50°	2603.2	2759.0	2975.1	3165.7	3235.4
52.5°	2431.2	2593.9	2828.7	3030.9	3093.7
55°	2268.5	2428.9	2673.0	2872.8	2951.9
57.5°	2080.3	2261.6	2519.6	2721.8	2798.5
60°	1910.6	2087.2	2347.6	2561.4	2645.1
62.5°	1727.0	1908.3	2182.5	2396.4	2477.7
65°	1550.3	1736.3	2008.2	2222.0	2303.4
67.5°	1359.7	1555.0	1833.9	2040.7	2119.8
70°	1190.0	1373.7	1647.9	1859.4	1938.5
72.5°	983.2	1192.4	1455.0	1664.2	1750.2
75°	806.5	1013.4	1264.4	1464.3	1515.5
77.5°	620.6	827.5	1076.2	1206.3	1241.2
80°	455.6	650.8	850.7	920.4	922.8
82.5°	306.8	478.8	592.7	627.6	622.9
85°	169.7	292.9	323.1	313.8	304.5
87.5°	69.7	97.6	79.0	55.8	44.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)