

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: P388680

Luminaire Tested: **24CZ2-150VHE-UNV-L935-CD2-SDWPD1-U**

Issue Date: 2/28/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P388680
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-150VHE-UNV-L935-CD2-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12378.8 lumens
Efficiency: N/A
Efficacy: 118.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

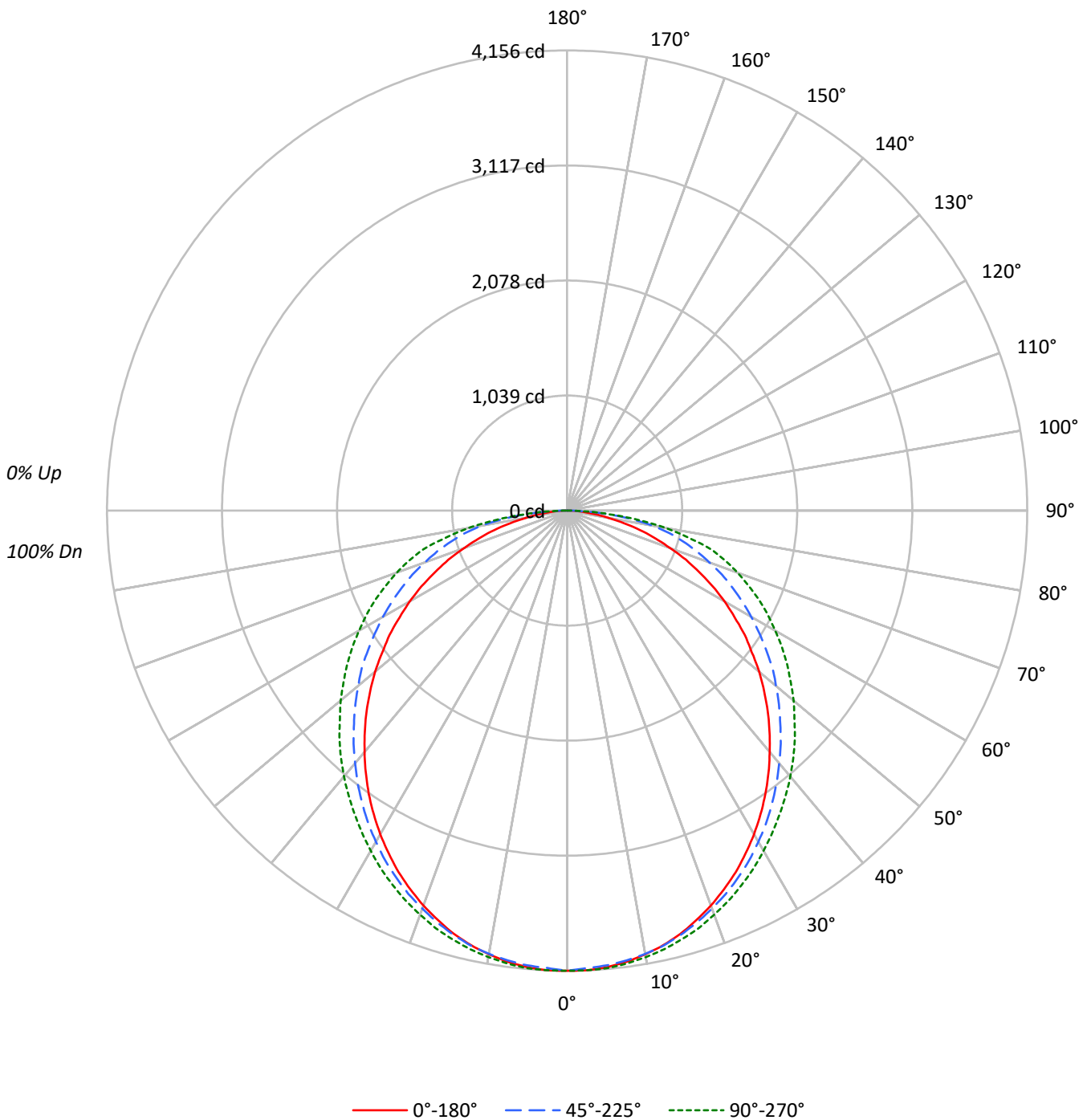
Input Watts (W): 104.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	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	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
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	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5592	5592	5592
5°	5591	5569	5602
10°	5560	5554	5594
15°	5513	5525	5582
20°	5436	5478	5561
25°	5348	5428	5538
30°	5244	5366	5514
35°	5130	5300	5497
40°	5000	5232	5508
45°	4874	5181	5534
50°	4739	5154	5587
55°	4594	5146	5689
60°	4413	5170	5837
65°	4183	5248	6090
70°	3884	5380	6436
75°	3544	5648	6980
80°	2913	6082	6978
85°	2232	5613	5994



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	393.1	3.2
10°-20°	1122.2	9.1
20°-30°	1688.7	13.6
30°-40°	2023.7	16.3
40°-50°	2108.9	17.0
50°-60°	1962.1	15.9
60°-70°	1616.1	13.1
70°-80°	1100.6	8.9
80°-90°	363.4	2.9
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°	3204.0	25.9
0°-40°	5227.7	42.2
0°-60°	9298.8	75.1
0°-90°	12378.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12378.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4156	4156	4156	4156	4156	
5°	4140	4140	4123	4144	4148	393
15°	3958	3962	3966	4003	4007	1115
25°	3602	3619	3656	3718	3731	1658
35°	3123	3160	3227	3313	3346	1952
45°	2561	2615	2723	2859	2908	1976
55°	1958	2024	2194	2367	2425	1746
65°	1314	1425	1648	1843	1913	1304
75°	682	834	1086	1281	1343	719
85°	145	281	364	388	388	179
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4156.1	4156.1	4156.1	4156.1	4156.1
2.5°	4156.1	4156.1	4135.5	4156.1	4156.1
5°	4139.6	4139.6	4123.1	4143.7	4147.9
7.5°	4110.7	4114.8	4098.3	4123.1	4127.2
10°	4069.4	4073.5	4065.2	4090.0	4094.2
12.5°	4019.8	4023.9	4023.9	4052.9	4057.0
15°	3957.8	3962.0	3966.1	4003.3	4007.4
17.5°	3879.3	3891.7	3900.0	3945.4	3953.7
20°	3796.7	3809.1	3825.6	3875.2	3883.5
22.5°	3701.7	3718.2	3747.1	3800.8	3813.2
25°	3602.5	3619.1	3656.2	3718.2	3730.6
27.5°	3491.0	3515.8	3561.2	3627.3	3643.9
30°	3375.3	3400.1	3453.8	3524.0	3548.8
32.5°	3251.4	3284.4	3346.4	3424.9	3449.7
35°	3123.3	3160.5	3226.6	3313.3	3346.4
37.5°	2987.0	3028.3	3106.8	3201.8	3243.1
40°	2846.5	2896.1	2978.7	3090.3	3135.7
42.5°	2706.0	2751.5	2854.8	2974.6	3024.1
45°	2561.4	2615.1	2722.6	2858.9	2908.5
47.5°	2412.7	2466.4	2594.5	2739.1	2784.5
50°	2264.0	2317.7	2462.3	2615.1	2668.9
52.5°	2102.9	2173.1	2338.3	2491.2	2544.9
55°	1958.3	2024.4	2193.7	2367.3	2425.1
57.5°	1793.0	1871.5	2057.4	2239.2	2301.2
60°	1640.1	1722.8	1921.1	2107.0	2169.0
62.5°	1483.2	1574.0	1784.7	1974.8	2045.0
65°	1313.8	1425.3	1648.4	1842.6	1912.8
67.5°	1160.9	1276.6	1512.1	1710.4	1772.3
70°	987.4	1127.9	1367.5	1565.8	1636.0
72.5°	838.7	979.1	1231.1	1425.3	1495.5
75°	681.7	834.5	1086.5	1280.7	1342.7
77.5°	524.7	694.1	946.1	1094.8	1115.5
80°	376.0	553.6	785.0	871.7	900.6
82.5°	264.4	425.5	578.4	636.2	652.8
85°	144.6	280.9	363.6	388.3	388.3
87.5°	62.0	119.8	144.6	148.7	152.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)