

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: P388397

Luminaire Tested: **24CZ2-150VHE-SQR-UNV-L935-CD2-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: P388397
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-150VHE-SQR-UNV-L935-CD2-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12184.6 lumens
Efficiency: N/A
Efficacy: 116.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

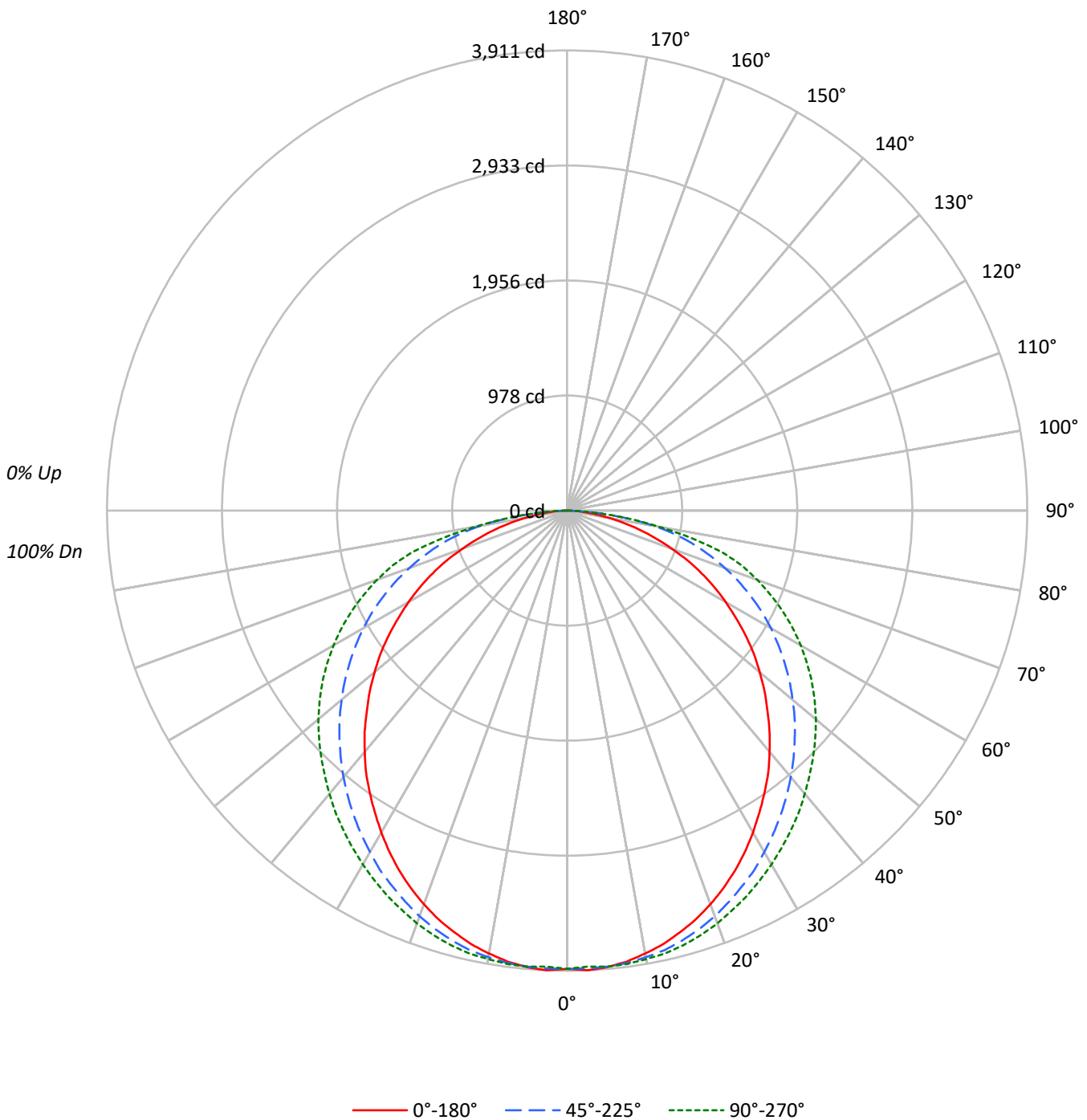
Input Watts (W): 104.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5240	5240	5240
5°	5260	5255	5255
10°	5222	5266	5288
15°	5167	5268	5324
20°	5098	5254	5346
25°	5012	5227	5364
30°	4907	5207	5395
35°	4805	5195	5446
40°	4700	5194	5519
45°	4578	5206	5627
50°	4472	5238	5778
55°	4342	5295	5956
60°	4190	5381	6171
65°	4010	5483	6430
70°	3720	5619	6759
75°	3368	5815	7070
80°	2837	5830	6079
85°	2174	4411	4411



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	369.7	3.0
10°-20°	1063.7	8.7
20°-30°	1615.7	13.3
30°-40°	1965.2	16.1
40°-50°	2092.3	17.2
50°-60°	1992.8	16.4
60°-70°	1666.6	13.7
70°-80°	1111.1	9.1
80°-90°	307.4	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°	3049.0	25.0
0°-40°	5014.3	41.2
0°-60°	9099.4	74.7
0°-90°	12184.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12184.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3895	3895	3895	3895	3895	
5°	3895	3871	3891	3891	3891	369
15°	3710	3718	3782	3810	3822	1046
25°	3376	3420	3521	3581	3613	1554
35°	2925	3010	3162	3267	3315	1830
45°	2406	2535	2736	2889	2957	1860
55°	1851	2012	2257	2454	2539	1655
65°	1259	1444	1722	1935	2020	1244
75°	648	853	1118	1308	1360	686
85°	141	262	286	282	286	170
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3894.8	3894.8	3894.8	3894.8	3894.8
2.5°	3910.9	3882.7	3894.8	3894.8	3878.7
5°	3894.8	3870.6	3890.8	3890.8	3890.8
7.5°	3866.6	3846.5	3878.7	3886.7	3886.7
10°	3822.4	3814.3	3854.6	3866.6	3870.6
12.5°	3774.1	3770.1	3826.4	3842.5	3854.6
15°	3709.7	3717.8	3782.1	3810.3	3822.4
17.5°	3641.3	3657.4	3729.8	3770.1	3782.1
20°	3560.8	3585.0	3669.5	3709.7	3733.8
22.5°	3472.3	3508.5	3597.0	3645.3	3673.5
25°	3375.8	3420.0	3520.6	3581.0	3613.1
27.5°	3271.1	3327.5	3444.2	3512.6	3544.7
30°	3158.5	3222.9	3351.6	3432.1	3472.3
32.5°	3041.8	3118.2	3259.1	3347.6	3395.9
35°	2925.1	3009.6	3162.5	3267.1	3315.4
37.5°	2808.4	2892.9	3061.9	3174.6	3234.9
40°	2675.7	2776.2	2957.3	3082.0	3142.4
42.5°	2546.9	2655.5	2848.7	2985.5	3049.8
45°	2406.1	2534.8	2736.0	2888.9	2957.3
47.5°	2277.3	2406.1	2623.4	2784.3	2860.7
50°	2136.5	2273.3	2502.6	2679.7	2760.2
52.5°	1999.7	2140.5	2381.9	2571.0	2651.5
55°	1850.8	2011.8	2257.2	2454.4	2538.9
57.5°	1702.0	1875.0	2128.5	2333.7	2418.2
60°	1557.1	1734.1	1999.7	2204.9	2293.4
62.5°	1412.3	1589.3	1866.9	2076.1	2160.6
65°	1259.4	1444.5	1722.1	1935.3	2019.8
67.5°	1106.5	1299.6	1577.2	1790.5	1870.9
70°	945.5	1150.7	1428.4	1637.6	1718.1
72.5°	796.7	1001.9	1275.5	1480.7	1557.1
75°	647.8	853.0	1118.5	1307.7	1360.0
77.5°	502.9	708.1	945.5	1070.3	1082.3
80°	366.1	559.3	752.4	788.6	784.6
82.5°	245.4	418.4	519.0	523.1	535.1
85°	140.8	261.5	285.7	281.6	285.7
87.5°	56.3	92.5	80.5	60.4	60.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)