

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: P389024

Luminaire Tested: **24CZ2-85VHE-UNV-L950-CD1-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: P389024
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: 24CZ2-85VHE-UNV-L950-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7797.7 lumens
Efficiency: N/A
Efficacy: 134.7 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

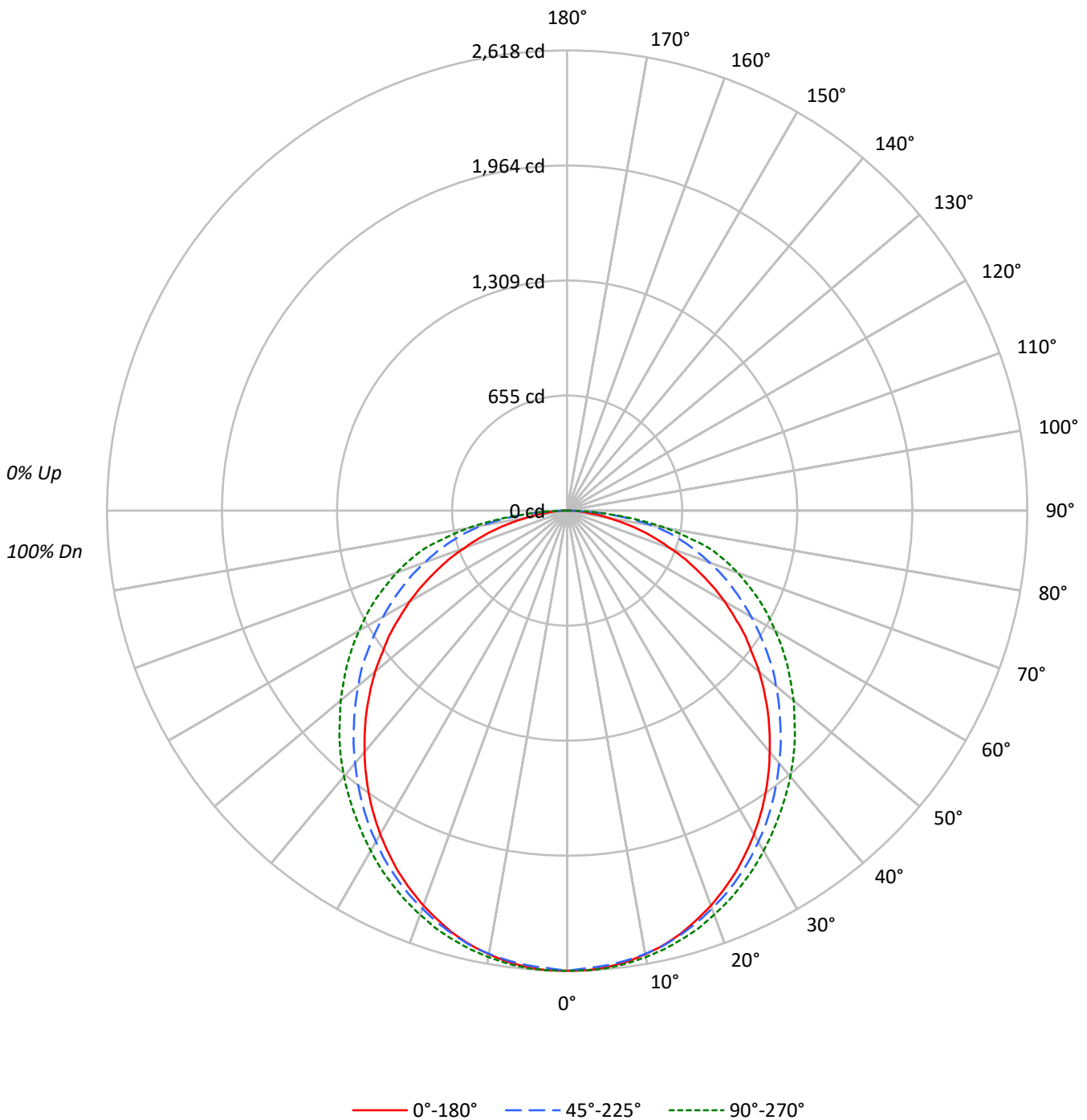
Input Watts (W): 57.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3523	3523	3523
5°	3522	3508	3529
10°	3502	3499	3524
15°	3473	3480	3516
20°	3424	3451	3503
25°	3369	3419	3489
30°	3303	3380	3473
35°	3232	3338	3462
40°	3149	3296	3469
45°	3070	3263	3486
50°	2985	3247	3519
55°	2894	3242	3583
60°	2780	3256	3677
65°	2635	3306	3836
70°	2447	3389	4054
75°	2232	3558	4397
80°	1835	3832	4396
85°	1406	3535	3776



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	247.6	3.2
10°-20°	706.9	9.1
20°-30°	1063.8	13.6
30°-40°	1274.8	16.3
40°-50°	1328.5	17.0
50°-60°	1236.0	15.9
60°-70°	1018.0	13.1
70°-80°	693.3	8.9
80°-90°	228.9	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°	2018.3	25.9
0°-40°	3293.1	42.2
0°-60°	5857.5	75.1
0°-90°	7797.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7797.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2618	2618	2618	2618	2618	
5°	2608	2608	2597	2610	2613	247
15°	2493	2496	2498	2522	2524	702
25°	2269	2280	2303	2342	2350	1045
35°	1967	1991	2032	2087	2108	1230
45°	1614	1647	1715	1801	1832	1244
55°	1234	1275	1382	1491	1528	1100
65°	828	898	1038	1161	1205	821
75°	429	526	684	807	846	453
85°	91	177	229	245	245	113
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2618.1	2618.1	2618.1	2618.1	2618.1
2.5°	2618.1	2618.1	2605.0	2618.1	2618.1
5°	2607.6	2607.6	2597.2	2610.2	2612.8
7.5°	2589.4	2592.0	2581.6	2597.2	2599.8
10°	2563.4	2566.0	2560.8	2576.4	2579.0
12.5°	2532.2	2534.8	2534.8	2553.0	2555.6
15°	2493.1	2495.7	2498.3	2521.8	2524.4
17.5°	2443.7	2451.5	2456.7	2485.3	2490.5
20°	2391.6	2399.4	2409.9	2441.1	2446.3
22.5°	2331.8	2342.2	2360.4	2394.2	2402.0
25°	2269.3	2279.7	2303.2	2342.2	2350.0
27.5°	2199.1	2214.7	2243.3	2284.9	2295.3
30°	2126.2	2141.8	2175.6	2219.9	2235.5
32.5°	2048.1	2068.9	2108.0	2157.4	2173.0
35°	1967.4	1990.9	2032.5	2087.2	2108.0
37.5°	1881.6	1907.6	1957.0	2016.9	2042.9
40°	1793.1	1824.3	1876.4	1946.6	1975.2
42.5°	1704.6	1733.2	1798.3	1873.8	1905.0
45°	1613.5	1647.3	1715.0	1800.9	1832.1
47.5°	1519.8	1553.7	1634.3	1725.4	1754.0
50°	1426.1	1460.0	1551.1	1647.3	1681.2
52.5°	1324.6	1368.9	1473.0	1569.3	1603.1
55°	1233.6	1275.2	1381.9	1491.2	1527.6
57.5°	1129.5	1178.9	1296.0	1410.5	1449.6
60°	1033.2	1085.2	1210.1	1327.2	1366.3
62.5°	934.3	991.5	1124.3	1244.0	1288.2
65°	827.6	897.8	1038.4	1160.7	1204.9
67.5°	731.3	804.2	952.5	1077.4	1116.4
70°	622.0	710.5	861.4	986.3	1030.6
72.5°	528.3	616.8	775.5	897.8	942.1
75°	429.4	525.7	684.4	806.8	845.8
77.5°	330.5	437.2	596.0	689.6	702.7
80°	236.8	348.7	494.5	549.1	567.3
82.5°	166.6	268.1	364.3	400.8	411.2
85°	91.1	177.0	229.0	244.6	244.6
87.5°	39.0	75.5	91.1	93.7	96.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)