

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: P388902

Luminaire Tested: **24CZ2-60VHE-UNV-L950-CD1-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: P388902
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: 24CZ2-60VHE-UNV-L950-CD1-SDWPD1-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: 5356.6 lumens
Efficiency: N/A
Efficacy: 138.4 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

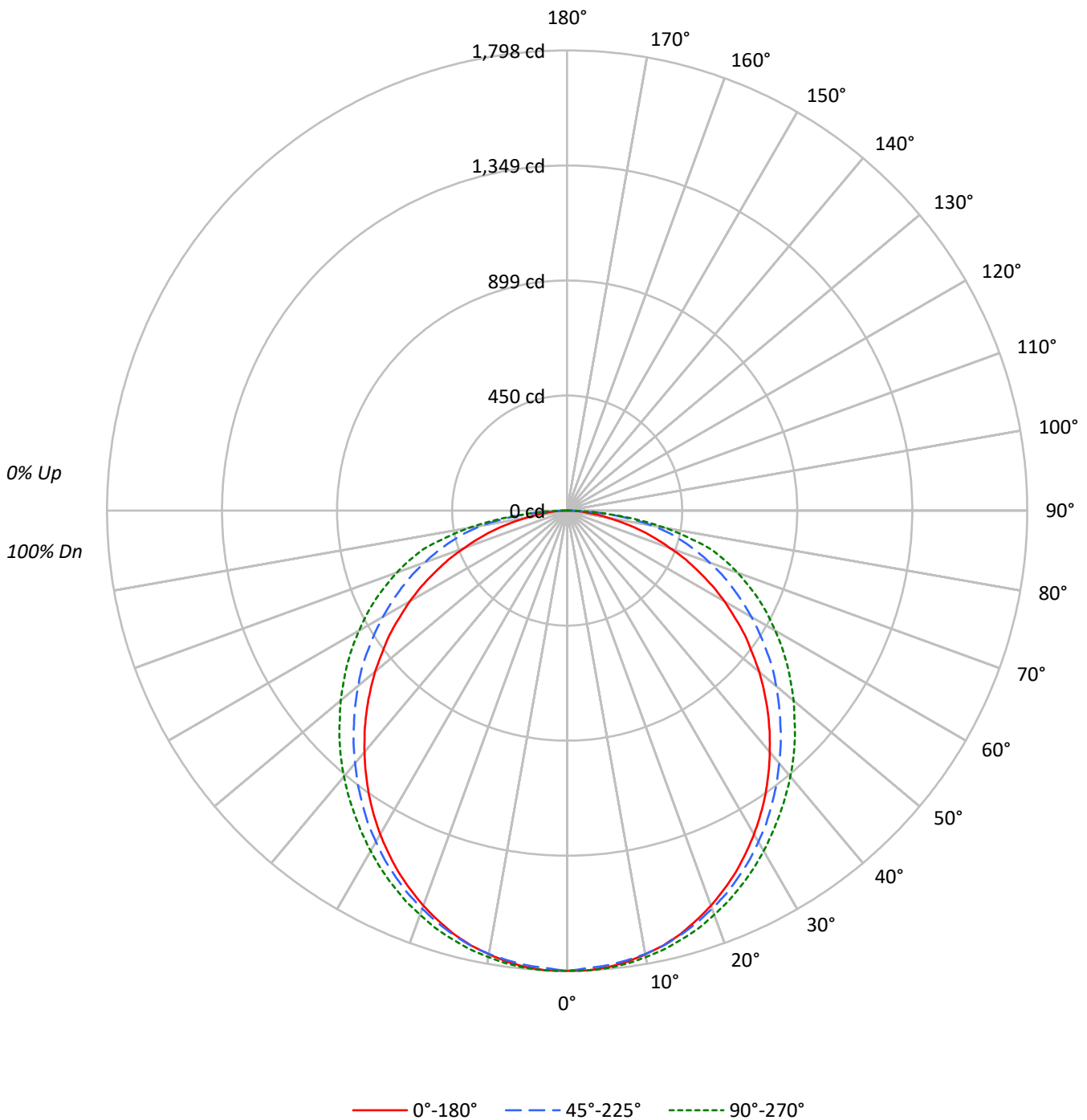
Input Watts (W): 38.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2420	2420	2420
5°	2419	2410	2424
10°	2406	2403	2420
15°	2386	2391	2416
20°	2352	2370	2406
25°	2314	2349	2397
30°	2269	2322	2386
35°	2220	2293	2379
40°	2163	2264	2383
45°	2109	2242	2395
50°	2051	2230	2417
55°	1988	2227	2462
60°	1910	2237	2526
65°	1810	2271	2635
70°	1681	2328	2785
75°	1534	2444	3020
80°	1261	2632	3020
85°	966	2428	2594



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.1	3.2
10°-20°	485.6	9.1
20°-30°	730.7	13.6
30°-40°	875.7	16.3
40°-50°	912.6	17.0
50°-60°	849.1	15.9
60°-70°	699.3	13.1
70°-80°	476.3	8.9
80°-90°	157.2	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°	1386.4	25.9
0°-40°	2262.2	42.2
0°-60°	4023.8	75.1
0°-90°	5356.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5356.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1798	1798	1798	1798	1798	
5°	1791	1791	1784	1793	1795	170
15°	1713	1714	1716	1732	1734	482
25°	1559	1566	1582	1609	1614	718
35°	1352	1368	1396	1434	1448	845
45°	1108	1132	1178	1237	1259	855
55°	847	876	949	1024	1049	755
65°	568	617	713	797	828	564
75°	295	361	470	554	581	311
85°	63	122	157	168	168	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1798.5	1798.5	1798.5	1798.5	1798.5
2.5°	1798.5	1798.5	1789.5	1798.5	1798.5
5°	1791.3	1791.3	1784.2	1793.1	1794.9
7.5°	1778.8	1780.6	1773.4	1784.2	1785.9
10°	1760.9	1762.7	1759.1	1769.9	1771.6
12.5°	1739.5	1741.3	1741.3	1753.8	1755.6
15°	1712.6	1714.4	1716.2	1732.3	1734.1
17.5°	1678.7	1684.0	1687.6	1707.3	1710.9
20°	1642.9	1648.3	1655.4	1676.9	1680.5
22.5°	1601.8	1609.0	1621.5	1644.7	1650.1
25°	1558.9	1566.1	1582.1	1609.0	1614.3
27.5°	1510.6	1521.4	1541.0	1569.6	1576.8
30°	1460.6	1471.3	1494.5	1524.9	1535.7
32.5°	1406.9	1421.2	1448.1	1482.0	1492.8
35°	1351.5	1367.6	1396.2	1433.8	1448.1
37.5°	1292.5	1310.4	1344.4	1385.5	1403.4
40°	1231.7	1253.2	1289.0	1337.2	1356.9
42.5°	1171.0	1190.6	1235.3	1287.2	1308.6
45°	1108.4	1131.6	1178.1	1237.1	1258.6
47.5°	1044.0	1067.3	1122.7	1185.3	1204.9
50°	979.7	1002.9	1065.5	1131.6	1154.9
52.5°	910.0	940.3	1011.9	1078.0	1101.2
55°	847.4	876.0	949.3	1024.4	1049.4
57.5°	775.9	809.8	890.3	969.0	995.8
60°	709.7	745.5	831.3	911.7	938.6
62.5°	641.8	681.1	772.3	854.5	884.9
65°	568.5	616.8	713.3	797.3	827.7
67.5°	502.4	552.4	654.3	740.1	766.9
70°	427.3	488.1	591.7	677.6	707.9
72.5°	362.9	423.7	532.7	616.8	647.2
75°	295.0	361.1	470.2	554.2	581.0
77.5°	227.0	300.3	409.4	473.7	482.7
80°	162.7	239.6	339.7	377.2	389.7
82.5°	114.4	184.1	250.3	275.3	282.5
85°	62.6	121.6	157.3	168.0	168.0
87.5°	26.8	51.8	62.6	64.4	66.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)