

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: P388895

Luminaire Tested: **24CZ2-60VHE-UNV-L930-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: P388895
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-L930-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

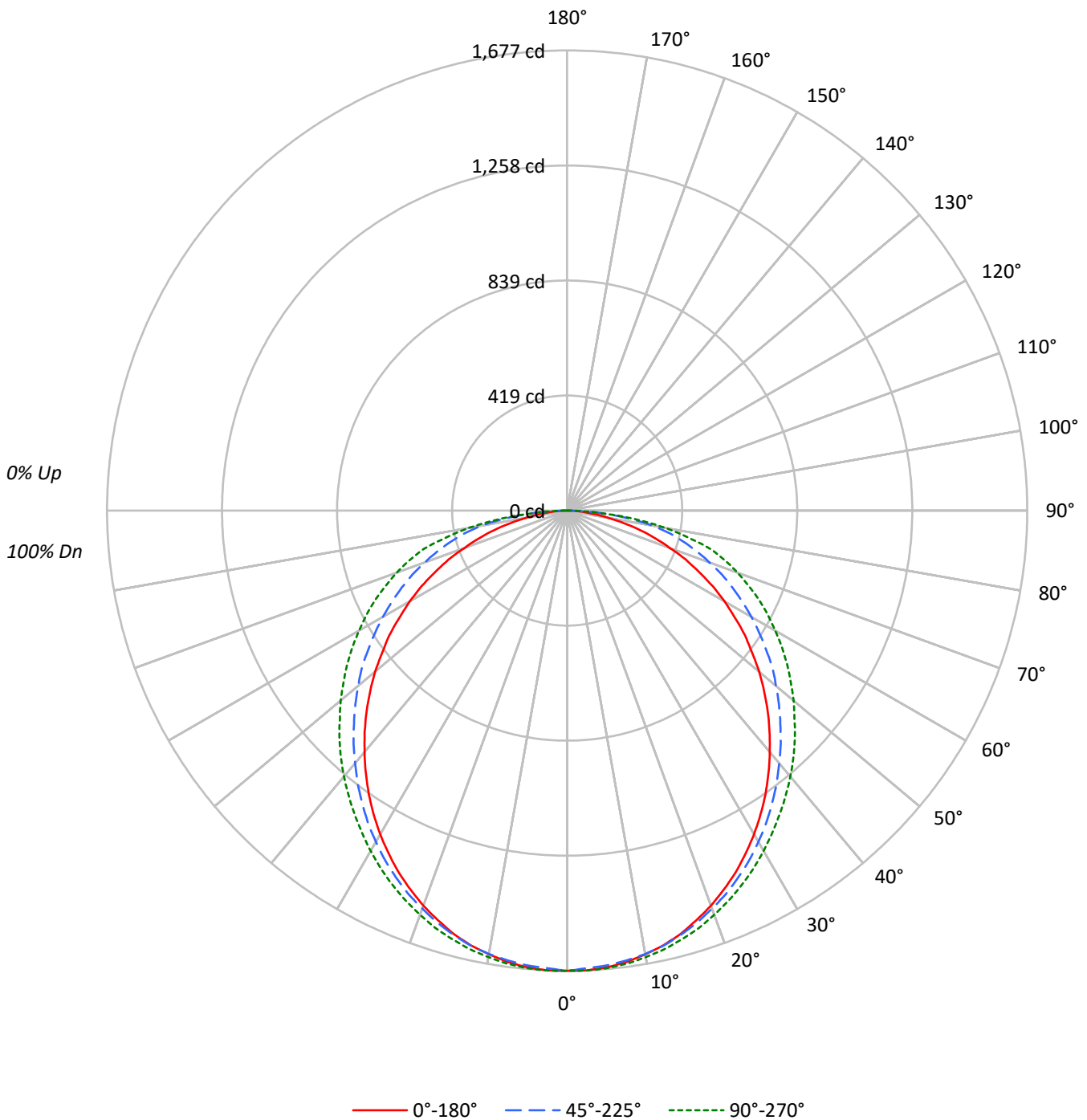
Lumens per Lamp: N/A
Luminaire Lumens: 4995.8 lumens
Efficiency: N/A
Efficacy: 129.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	2257	2257	2257
5°	2256	2247	2261
10°	2244	2241	2257
15°	2225	2230	2253
20°	2194	2211	2244
25°	2158	2191	2235
30°	2116	2166	2225
35°	2070	2139	2218
40°	2018	2111	2223
45°	1967	2091	2234
50°	1913	2080	2255
55°	1854	2077	2296
60°	1781	2086	2355
65°	1688	2118	2458
70°	1568	2171	2598
75°	1430	2280	2817
80°	1175	2455	2817
85°	902	2265	2419



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.6	3.2
10°-20°	452.9	9.1
20°-30°	681.5	13.6
30°-40°	816.7	16.3
40°-50°	851.1	17.0
50°-60°	791.9	15.9
60°-70°	652.2	13.1
70°-80°	444.2	8.9
80°-90°	146.6	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°	1293.0	25.9
0°-40°	2109.8	42.2
0°-60°	3752.8	75.1
0°-90°	4995.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4995.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1677	1677	1677	1677	1677	
5°	1671	1671	1664	1672	1674	159
15°	1597	1599	1601	1616	1617	450
25°	1454	1461	1476	1501	1506	669
35°	1260	1276	1302	1337	1350	788
45°	1034	1055	1099	1154	1174	797
55°	790	817	885	955	979	704
65°	530	575	665	744	772	526
75°	275	337	438	517	542	290
85°	58	113	147	157	157	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1677.3	1677.3	1677.3	1677.3	1677.3
2.5°	1677.3	1677.3	1669.0	1677.3	1677.3
5°	1670.7	1670.7	1664.0	1672.3	1674.0
7.5°	1659.0	1660.6	1654.0	1664.0	1665.7
10°	1642.3	1644.0	1640.6	1650.6	1652.3
12.5°	1622.3	1624.0	1624.0	1635.6	1637.3
15°	1597.3	1599.0	1600.6	1615.6	1617.3
17.5°	1565.6	1570.6	1573.9	1592.3	1595.6
20°	1532.3	1537.3	1543.9	1563.9	1567.3
22.5°	1493.9	1500.6	1512.3	1533.9	1538.9
25°	1453.9	1460.6	1475.6	1500.6	1505.6
27.5°	1408.9	1418.9	1437.2	1463.9	1470.6
30°	1362.2	1372.2	1393.9	1422.2	1432.2
32.5°	1312.2	1325.5	1350.5	1382.2	1392.2
35°	1260.5	1275.5	1302.2	1337.2	1350.5
37.5°	1205.5	1222.1	1253.8	1292.2	1308.8
40°	1148.8	1168.8	1202.1	1247.2	1265.5
42.5°	1092.1	1110.4	1152.1	1200.5	1220.5
45°	1033.7	1055.4	1098.8	1153.8	1173.8
47.5°	973.7	995.4	1047.1	1105.4	1123.8
50°	913.7	935.4	993.7	1055.4	1077.1
52.5°	848.7	877.0	943.7	1005.4	1027.1
55°	790.3	817.0	885.3	955.4	978.7
57.5°	723.6	755.3	830.3	903.7	928.7
60°	661.9	695.3	775.3	850.3	875.3
62.5°	598.6	635.2	720.3	797.0	825.3
65°	530.2	575.2	665.3	743.6	772.0
67.5°	468.5	515.2	610.2	690.3	715.3
70°	398.5	455.2	551.9	631.9	660.3
72.5°	338.5	395.2	496.9	575.2	603.6
75°	275.1	336.8	438.5	516.9	541.9
77.5°	211.7	280.1	381.8	441.8	450.2
80°	151.7	223.4	316.8	351.8	363.5
82.5°	106.7	171.7	233.4	256.8	263.4
85°	58.4	113.4	146.7	156.7	156.7
87.5°	25.0	48.4	58.4	60.0	61.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)