

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: P388826

Luminaire Tested: **24CZ2-45VHE-UNV-L935-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: P388826
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: 24CZ2-45VHE-UNV-L935-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

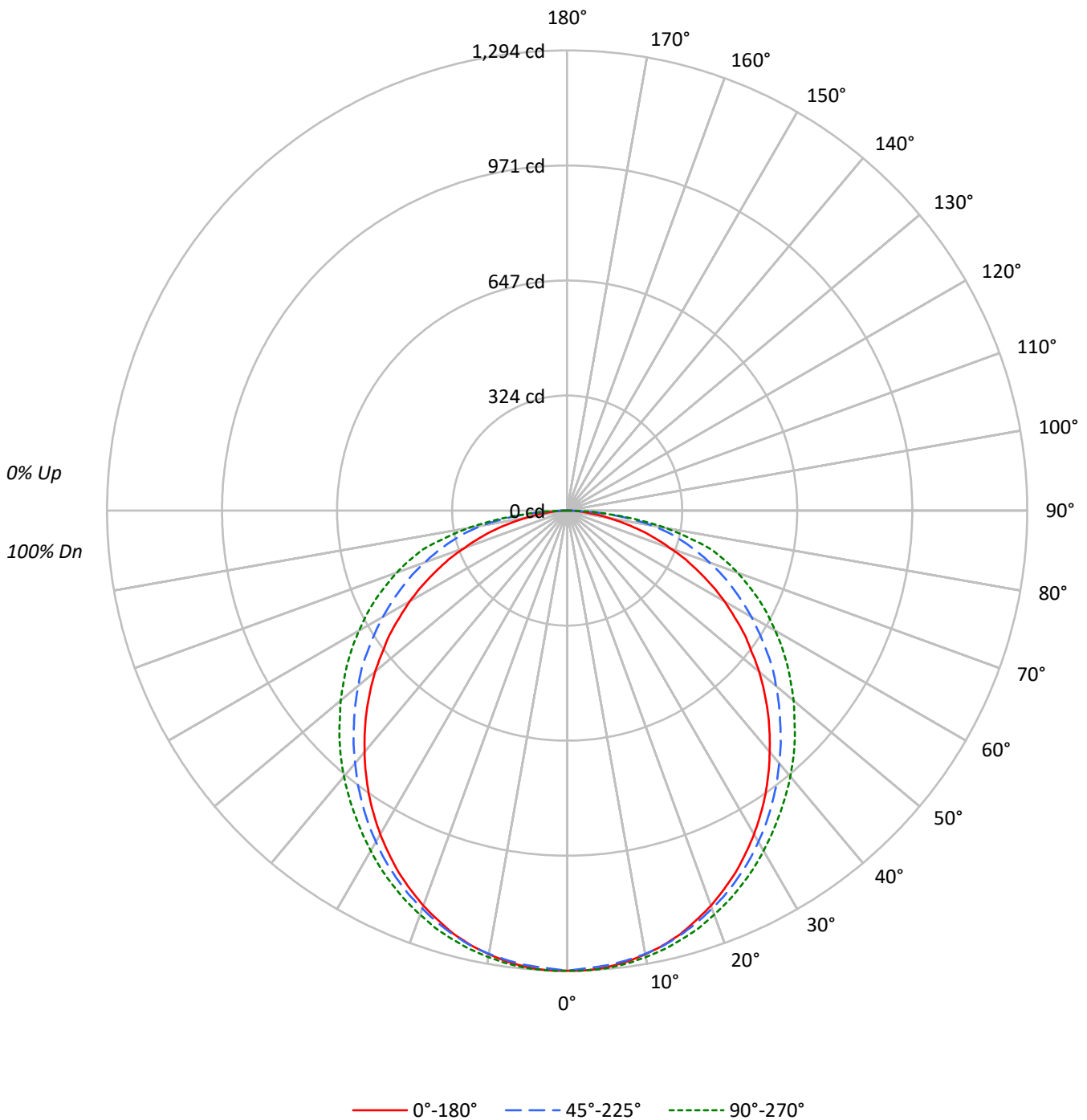
Lumens per Lamp: N/A
Luminaire Lumens: 3854.5 lumens
Efficiency: N/A
Efficacy: 130.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 29.6
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°	1741	1741	1741
5°	1741	1734	1744
10°	1731	1729	1742
15°	1717	1720	1738
20°	1693	1706	1731
25°	1665	1690	1724
30°	1633	1671	1717
35°	1597	1650	1712
40°	1557	1629	1715
45°	1518	1613	1723
50°	1476	1605	1739
55°	1430	1602	1771
60°	1374	1610	1817
65°	1302	1634	1896
70°	1210	1675	2004
75°	1104	1759	2174
80°	907	1894	2173
85°	695	1748	1866



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.4	3.2
10°-20°	349.4	9.1
20°-30°	525.8	13.6
30°-40°	630.1	16.3
40°-50°	656.7	17.0
50°-60°	611.0	15.9
60°-70°	503.2	13.1
70°-80°	342.7	8.9
80°-90°	113.1	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°	997.6	25.9
0°-40°	1627.8	42.2
0°-60°	2895.4	75.1
0°-90°	3854.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3854.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1294	1294	1294	1294	1294	
5°	1289	1289	1284	1290	1292	122
15°	1232	1234	1235	1246	1248	347
25°	1122	1127	1138	1158	1162	516
35°	972	984	1005	1032	1042	608
45°	798	814	848	890	906	615
55°	610	630	683	737	755	544
65°	409	444	513	574	596	406
75°	212	260	338	399	418	224
85°	45	88	113	121	121	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1294.1	1294.1	1294.1	1294.1	1294.1
2.5°	1294.1	1294.1	1287.7	1294.1	1294.1
5°	1289.0	1289.0	1283.8	1290.3	1291.6
7.5°	1280.0	1281.3	1276.1	1283.8	1285.1
10°	1267.1	1268.4	1265.8	1273.6	1274.8
12.5°	1251.7	1253.0	1253.0	1262.0	1263.3
15°	1232.4	1233.7	1235.0	1246.5	1247.8
17.5°	1207.9	1211.8	1214.4	1228.5	1231.1
20°	1182.2	1186.1	1191.2	1206.7	1209.2
22.5°	1152.6	1157.8	1166.8	1183.5	1187.4
25°	1121.8	1126.9	1138.5	1157.8	1161.6
27.5°	1087.0	1094.7	1108.9	1129.5	1134.6
30°	1051.0	1058.7	1075.4	1097.3	1105.0
32.5°	1012.4	1022.7	1042.0	1066.4	1074.2
35°	972.5	984.1	1004.7	1031.7	1042.0
37.5°	930.1	942.9	967.4	997.0	1009.8
40°	886.3	901.8	927.5	962.2	976.4
42.5°	842.6	856.8	888.9	926.2	941.7
45°	797.6	814.3	847.7	890.2	905.6
47.5°	751.3	768.0	807.9	852.9	867.0
50°	705.0	721.7	766.7	814.3	831.0
52.5°	654.8	676.7	728.1	775.7	792.4
55°	609.8	630.3	683.1	737.1	755.1
57.5°	558.3	582.7	640.6	697.2	716.5
60°	510.7	536.4	598.2	656.1	675.4
62.5°	461.8	490.1	555.7	614.9	636.8
65°	409.1	443.8	513.3	573.7	595.6
67.5°	361.5	397.5	470.8	532.6	551.9
70°	307.5	351.2	425.8	487.6	509.4
72.5°	261.1	304.9	383.4	443.8	465.7
75°	212.3	259.9	338.3	398.8	418.1
77.5°	163.4	216.1	294.6	340.9	347.3
80°	117.1	172.4	244.4	271.4	280.4
82.5°	82.3	132.5	180.1	198.1	203.3
85°	45.0	87.5	113.2	120.9	120.9
87.5°	19.3	37.3	45.0	46.3	47.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)