

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: P389766

Luminaire Tested: **24CZ2-45VHE-S-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: P389766
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-45VHE-S-UNV-L950-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4237.8 lumens
Efficiency: N/A
Efficacy: 143.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

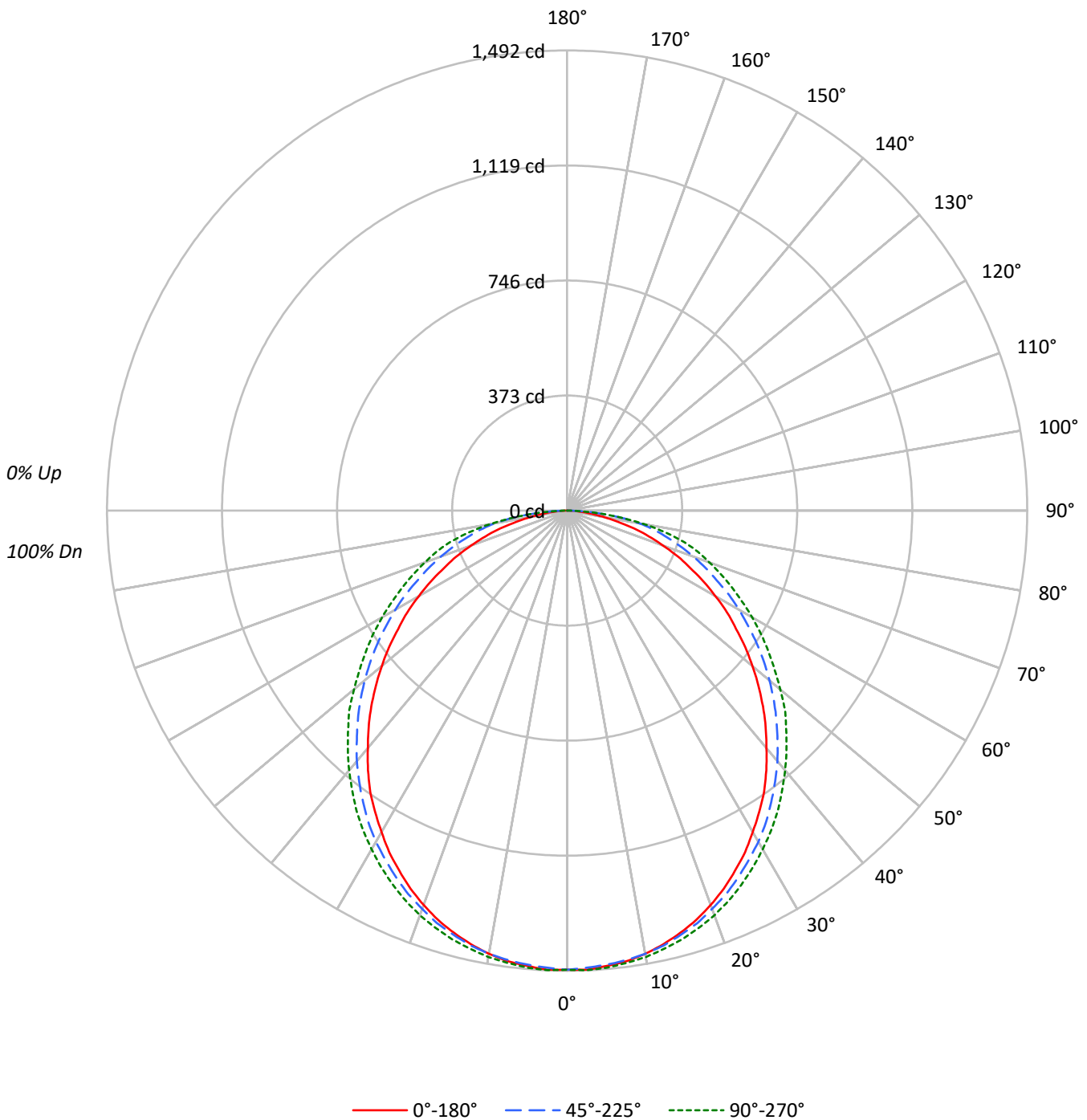
Input Watts (W): 29.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2003	2003	2003
5°	2002	1996	2009
10°	1994	1994	2008
15°	1974	1984	2004
20°	1949	1968	1999
25°	1912	1948	1986
30°	1870	1926	1970
35°	1828	1895	1954
40°	1766	1863	1932
45°	1708	1826	1911
50°	1643	1792	1888
55°	1569	1759	1869
60°	1496	1731	1865
65°	1401	1701	1877
70°	1297	1710	1928
75°	1161	1743	2036
80°	938	1846	1992
85°	707	1621	1579



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.9	3.3
10°-20°	402.7	9.5
20°-30°	605.4	14.3
30°-40°	721.1	17.0
40°-50°	738.0	17.4
50°-60°	664.4	15.7
60°-70°	521.8	12.3
70°-80°	338.6	8.0
80°-90°	104.7	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°	1149.1	27.1
0°-40°	1870.2	44.1
0°-60°	3272.6	77.2
0°-90°	4237.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4237.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1489	1489	1489	1489	1489	
5°	1482	1485	1478	1486	1487	141
15°	1417	1422	1424	1436	1439	400
25°	1288	1299	1312	1334	1338	593
35°	1113	1127	1154	1182	1190	694
45°	898	919	960	996	1004	692
55°	669	699	750	789	797	600
65°	440	474	534	579	590	438
75°	223	266	335	381	392	236
85°	46	85	105	102	102	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1488.8	1488.8	1488.8	1488.8	1488.8
2.5°	1490.1	1490.1	1483.4	1490.1	1491.5
5°	1482.0	1484.7	1478.0	1486.1	1487.4
7.5°	1474.0	1474.0	1469.9	1478.0	1479.3
10°	1459.2	1460.5	1459.2	1468.6	1469.9
12.5°	1440.3	1443.0	1444.3	1453.8	1455.1
15°	1417.4	1421.5	1424.2	1436.3	1439.0
17.5°	1391.8	1395.9	1402.6	1416.1	1418.8
20°	1360.9	1366.3	1374.3	1391.8	1395.9
22.5°	1327.2	1332.6	1346.1	1362.2	1369.0
25°	1288.2	1299.0	1312.4	1334.0	1338.0
27.5°	1249.2	1258.6	1276.1	1299.0	1304.4
30°	1203.4	1218.2	1239.7	1262.6	1268.0
32.5°	1159.0	1173.8	1199.4	1223.6	1230.3
35°	1113.2	1126.7	1153.6	1181.9	1189.9
37.5°	1060.7	1078.2	1107.8	1136.1	1144.2
40°	1005.5	1027.1	1060.7	1090.3	1099.7
42.5°	953.0	975.9	1009.6	1041.9	1052.6
45°	897.8	919.4	959.8	996.1	1004.2
47.5°	841.3	865.5	908.6	944.9	958.4
50°	784.8	810.3	856.1	893.8	901.9
52.5°	728.2	755.2	803.6	844.0	848.0
55°	669.0	698.6	749.8	788.8	796.9
57.5°	615.2	640.7	695.9	736.3	745.7
60°	555.9	584.2	643.4	681.1	693.2
62.5°	499.4	529.0	590.9	628.6	639.4
65°	440.2	473.8	534.4	578.8	589.6
67.5°	389.0	421.3	485.9	529.0	539.8
70°	329.8	366.1	434.8	479.2	490.0
72.5°	278.6	316.3	385.0	428.1	444.2
75°	223.4	266.5	335.2	380.9	391.7
77.5°	169.6	219.4	289.4	324.4	324.4
80°	121.1	173.6	238.3	254.4	257.1
82.5°	79.4	130.6	176.3	175.0	175.0
85°	45.8	84.8	105.0	102.3	102.3
87.5°	17.5	35.0	37.7	37.7	36.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)