

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: P389744

Luminaire Tested: **24CZ2-40VHE-S-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: P389744
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: 24CZ2-40VHE-S-UNV-L950-CD1-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: 3850.8 lumens
Efficiency: N/A
Efficacy: 147.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.27 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

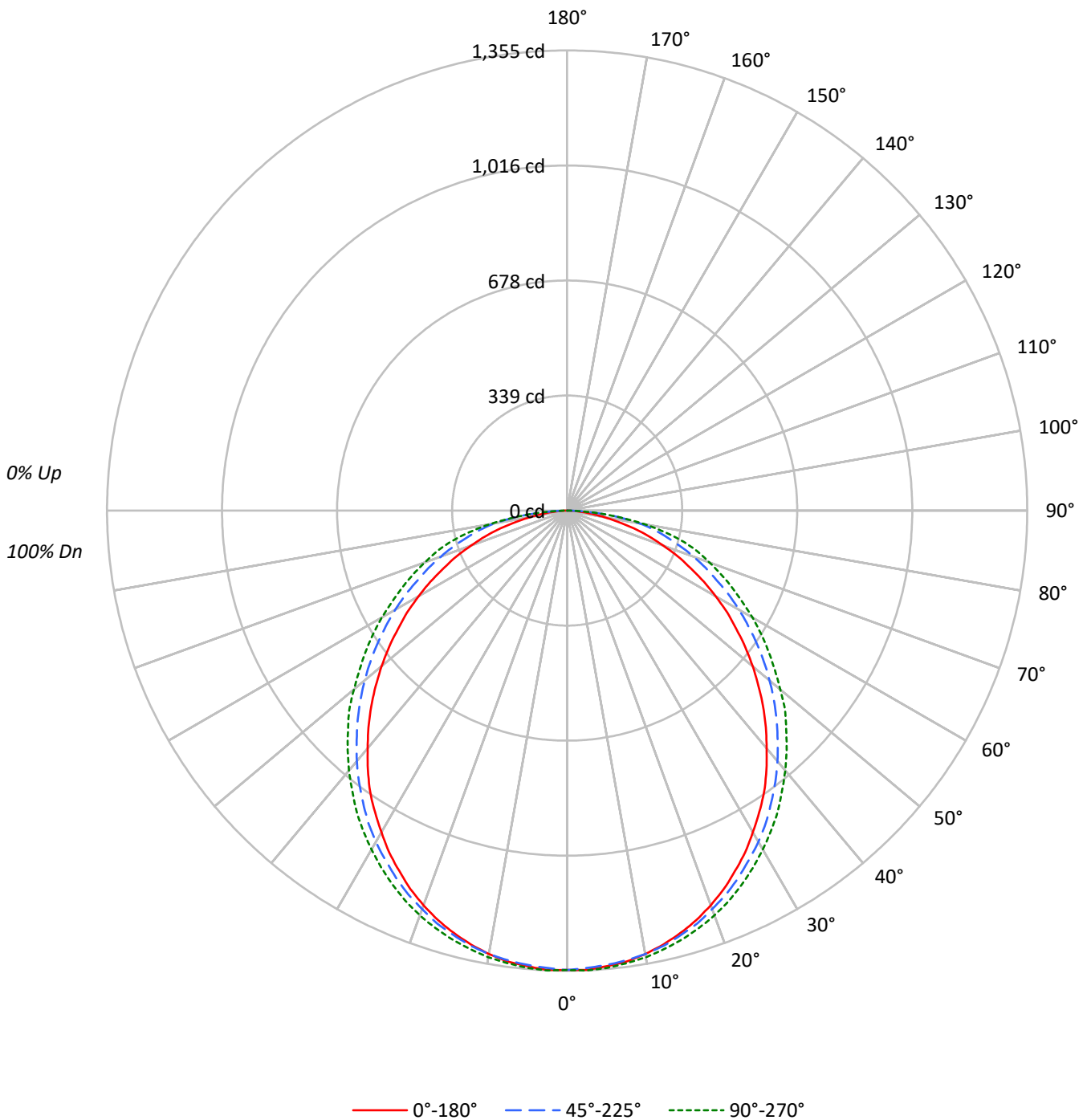
Input Watts (W): 26.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1820	1820	1820
5°	1819	1814	1826
10°	1812	1812	1825
15°	1794	1803	1821
20°	1771	1788	1816
25°	1738	1771	1805
30°	1699	1750	1790
35°	1662	1722	1776
40°	1605	1693	1755
45°	1552	1659	1736
50°	1493	1628	1715
55°	1426	1598	1699
60°	1359	1573	1695
65°	1273	1546	1706
70°	1179	1554	1751
75°	1055	1583	1850
80°	853	1678	1810
85°	642	1473	1436



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.1	3.3
10°-20°	365.9	9.5
20°-30°	550.1	14.3
30°-40°	655.3	17.0
40°-50°	670.6	17.4
50°-60°	603.8	15.7
60°-70°	474.1	12.3
70°-80°	307.7	8.0
80°-90°	95.2	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°	1044.1	27.1
0°-40°	1699.4	44.1
0°-60°	2973.7	77.2
0°-90°	3850.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3850.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1353	1353	1353	1353	1353	
5°	1347	1349	1343	1350	1352	128
15°	1288	1292	1294	1305	1308	363
25°	1171	1180	1193	1212	1216	539
35°	1012	1024	1048	1074	1081	631
45°	816	835	872	905	912	629
55°	608	635	681	717	724	545
65°	400	431	486	526	536	398
75°	203	242	305	346	356	215
85°	42	77	95	93	93	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1352.8	1352.8	1352.8	1352.8	1352.8
2.5°	1354.0	1354.0	1347.9	1354.0	1355.3
5°	1346.7	1349.1	1343.0	1350.4	1351.6
7.5°	1339.4	1339.4	1335.7	1343.0	1344.2
10°	1325.9	1327.1	1325.9	1334.5	1335.7
12.5°	1308.8	1311.2	1312.4	1321.0	1322.2
15°	1288.0	1291.7	1294.1	1305.1	1307.6
17.5°	1264.7	1268.4	1274.5	1286.8	1289.2
20°	1236.6	1241.5	1248.8	1264.7	1268.4
22.5°	1206.0	1210.9	1223.2	1237.8	1244.0
25°	1170.6	1180.3	1192.6	1212.1	1215.8
27.5°	1135.1	1143.7	1159.6	1180.3	1185.2
30°	1093.5	1107.0	1126.5	1147.3	1152.2
32.5°	1053.1	1066.6	1089.8	1111.8	1118.0
35°	1011.6	1023.8	1048.2	1073.9	1081.3
37.5°	963.8	979.7	1006.7	1032.3	1039.7
40°	913.7	933.3	963.8	990.8	999.3
42.5°	866.0	886.8	917.4	946.7	956.5
45°	815.8	835.4	872.1	905.1	912.5
47.5°	764.5	786.5	825.6	858.7	870.9
50°	713.1	736.3	777.9	812.2	819.5
52.5°	661.7	686.2	730.2	766.9	770.6
55°	607.9	634.8	681.3	716.8	724.1
57.5°	559.0	582.2	632.4	669.1	677.6
60°	505.2	530.8	584.7	618.9	629.9
62.5°	453.8	480.7	537.0	571.2	581.0
65°	400.0	430.6	485.6	526.0	535.7
67.5°	353.5	382.8	441.6	480.7	490.5
70°	299.7	332.7	395.1	435.4	445.2
72.5°	253.2	287.4	349.8	389.0	403.6
75°	203.0	242.2	304.6	346.2	355.9
77.5°	154.1	199.4	263.0	294.8	294.8
80°	110.1	157.8	216.5	231.2	233.6
82.5°	72.2	118.6	160.2	159.0	159.0
85°	41.6	77.1	95.4	93.0	93.0
87.5°	15.9	31.8	34.2	34.2	33.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)