

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: P389782

Luminaire Tested: **24CZ2-50VHE-S-UNV-L930-CD1-SWPD1-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: P389782
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: 24CZ2-50VHE-S-UNV-L930-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4335.7 lumens
Efficiency: N/A
Efficacy: 132.6 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

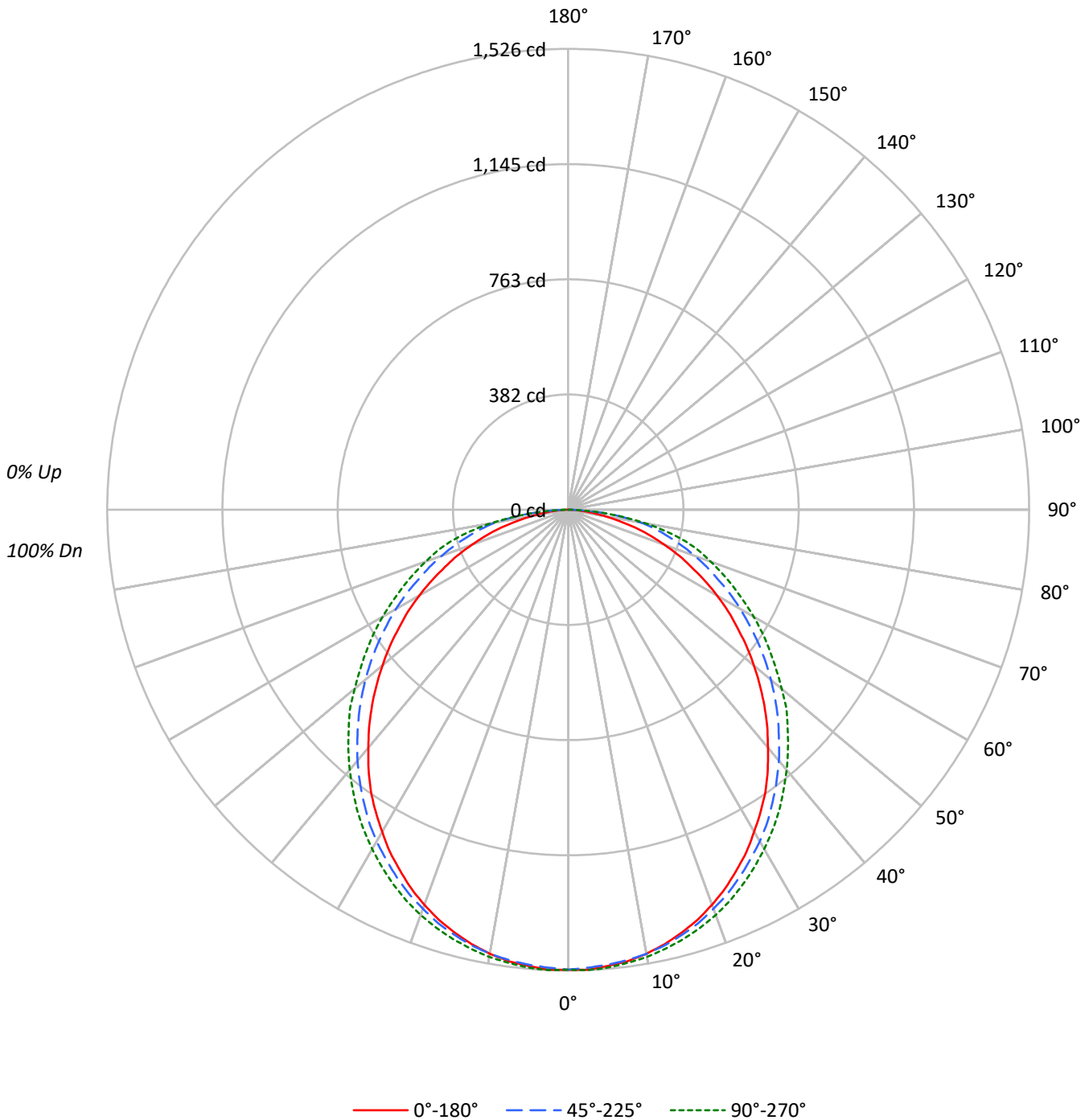
Input Watts (W): 32.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2049	2049	2049
5°	2048	2042	2055
10°	2040	2040	2055
15°	2020	2030	2051
20°	1994	2013	2045
25°	1957	1993	2032
30°	1913	1971	2016
35°	1871	1939	2000
40°	1807	1906	1976
45°	1748	1868	1955
50°	1681	1833	1931
55°	1606	1799	1913
60°	1531	1771	1908
65°	1434	1741	1920
70°	1327	1750	1972
75°	1188	1783	2084
80°	960	1889	2038
85°	722	1658	1616



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.2	3.3
10°-20°	412.0	9.5
20°-30°	619.4	14.3
30°-40°	737.8	17.0
40°-50°	755.1	17.4
50°-60°	679.8	15.7
60°-70°	533.8	12.3
70°-80°	346.5	8.0
80°-90°	107.2	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°	1175.6	27.1
0°-40°	1913.4	44.1
0°-60°	3348.2	77.2
0°-90°	4335.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4335.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1523	1523	1523	1523	1523	
5°	1516	1519	1512	1520	1522	144
15°	1450	1454	1457	1469	1472	409
25°	1318	1329	1343	1365	1369	607
35°	1139	1153	1180	1209	1217	711
45°	919	941	982	1019	1027	708
55°	684	715	767	807	815	614
65°	450	485	547	592	603	448
75°	229	273	343	390	401	242
85°	47	87	107	105	105	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1523.2	1523.2	1523.2	1523.2	1523.2
2.5°	1524.5	1524.5	1517.7	1524.5	1525.9
5°	1516.3	1519.0	1512.1	1520.4	1521.8
7.5°	1508.0	1508.0	1503.9	1512.1	1513.5
10°	1492.9	1494.2	1492.9	1502.5	1503.9
12.5°	1473.6	1476.3	1477.7	1487.4	1488.7
15°	1450.2	1454.3	1457.1	1469.4	1472.2
17.5°	1424.0	1428.1	1435.0	1448.8	1451.5
20°	1392.3	1397.8	1406.1	1424.0	1428.1
22.5°	1357.9	1363.4	1377.2	1393.7	1400.6
25°	1318.0	1329.0	1342.7	1364.8	1368.9
27.5°	1278.0	1287.7	1305.6	1329.0	1334.5
30°	1231.2	1246.3	1268.4	1291.8	1297.3
32.5°	1185.8	1200.9	1227.1	1251.9	1258.7
35°	1138.9	1152.7	1180.2	1209.2	1217.4
37.5°	1085.2	1103.1	1133.4	1162.3	1170.6
40°	1028.8	1050.8	1085.2	1115.5	1125.2
42.5°	975.0	998.5	1032.9	1065.9	1077.0
45°	918.6	940.6	981.9	1019.1	1027.4
47.5°	860.7	885.5	929.6	966.8	980.6
50°	802.9	829.1	875.9	914.4	922.7
52.5°	745.1	772.6	822.2	863.5	867.6
55°	684.5	714.8	767.1	807.0	815.3
57.5°	629.4	655.5	712.0	753.3	763.0
60°	568.8	597.7	658.3	696.9	709.2
62.5°	510.9	541.2	604.6	643.1	654.2
65°	450.3	484.8	546.7	592.2	603.2
67.5°	398.0	431.1	497.2	541.2	552.2
70°	337.4	374.6	444.8	490.3	501.3
72.5°	285.1	323.6	393.9	437.9	454.5
75°	228.6	272.7	342.9	389.7	400.8
77.5°	173.5	224.5	296.1	331.9	331.9
80°	123.9	177.7	243.8	260.3	263.0
82.5°	81.3	133.6	180.4	179.0	179.0
85°	46.8	86.8	107.4	104.7	104.7
87.5°	17.9	35.8	38.6	38.6	37.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)