

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: STREETWORKS

Report Number: P231148

Luminaire Tested: **ARCH-M-AF48-120-D-U-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231148
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-120-D-U-T3-7030
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 785mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13531 lumens
Efficiency: N/A
Efficacy: 110.9 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B2 - U0 - G3

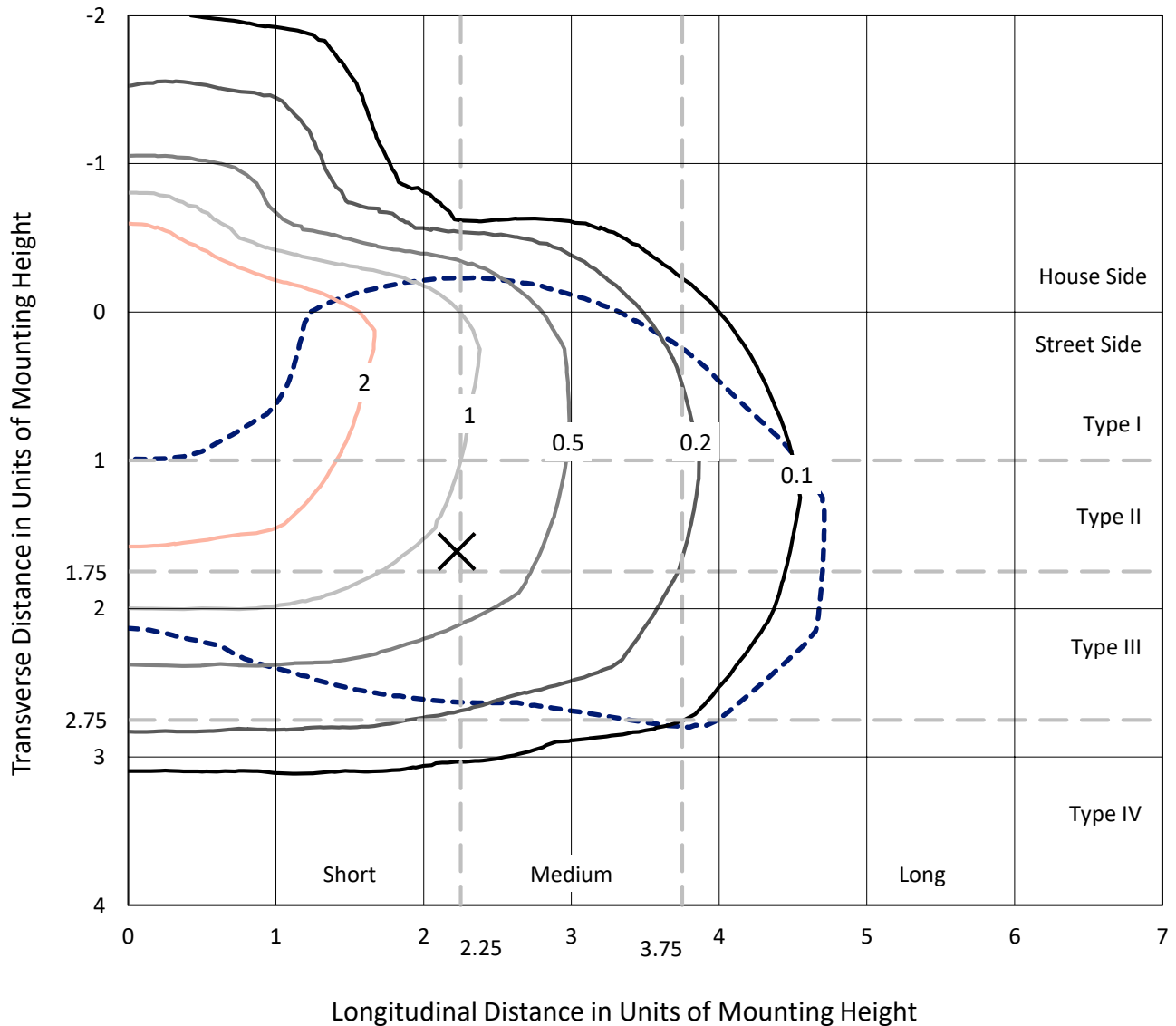
Input Watts (W): 122
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

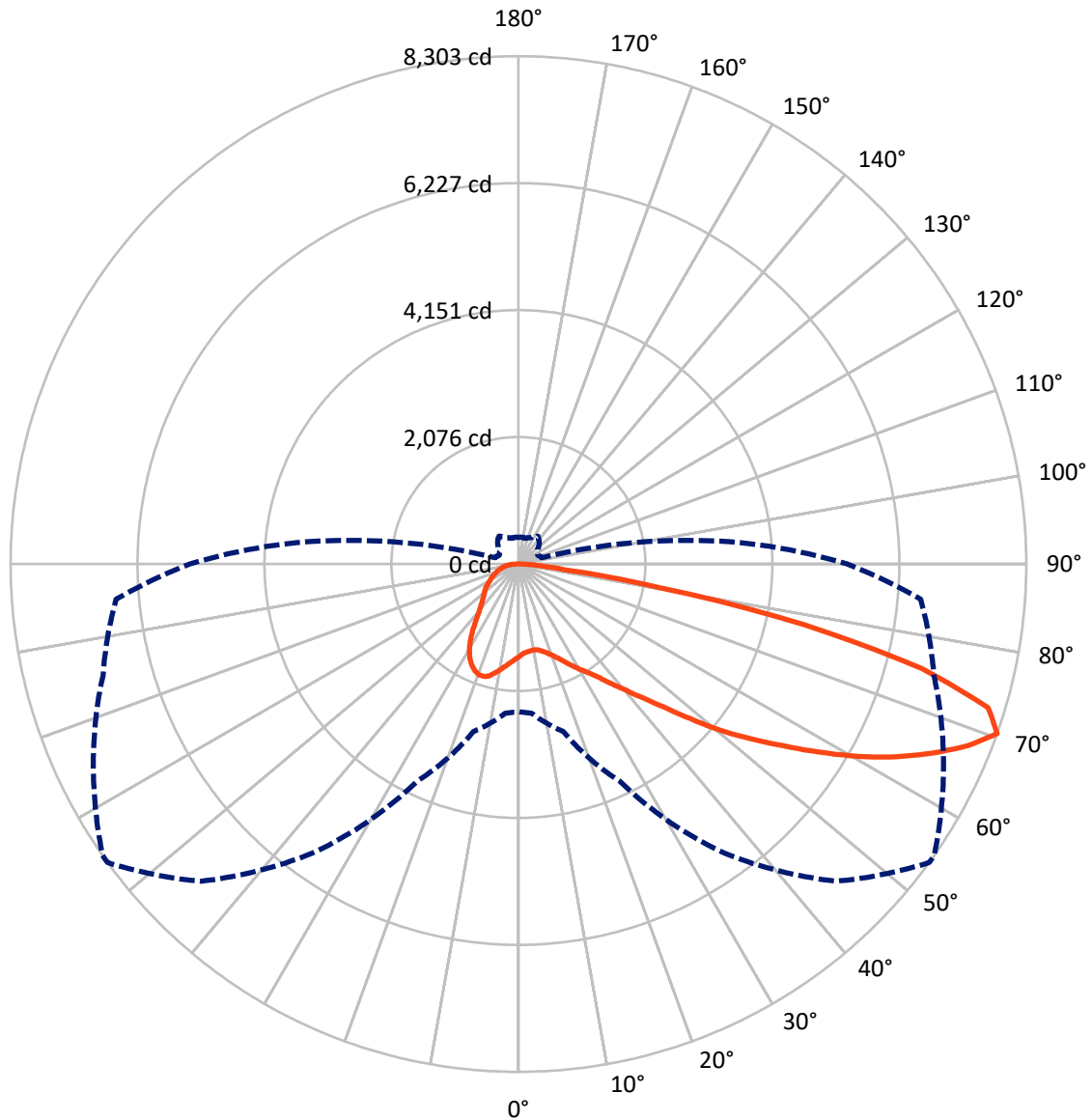
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.4 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3068.8	0.0	3068.8
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	10462.2	0.0	10462.2
	% Fixture	77.3	0.0	77.3
Total	Lumens	13531.0	0.0	13531.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.6	1.1
10°-20°	474.7	3.5
20°-30°	824.7	6.1
30°-40°	1205.2	8.9
40°-50°	1891.6	14.0
50°-60°	2908.8	21.5
60°-70°	3553.9	26.3
70°-80°	2203.4	16.3
80°-90°	320.1	2.4
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°-90°	13531.0	100.0
0°-180°	13531.0	100.0

Coefficient of Utilization



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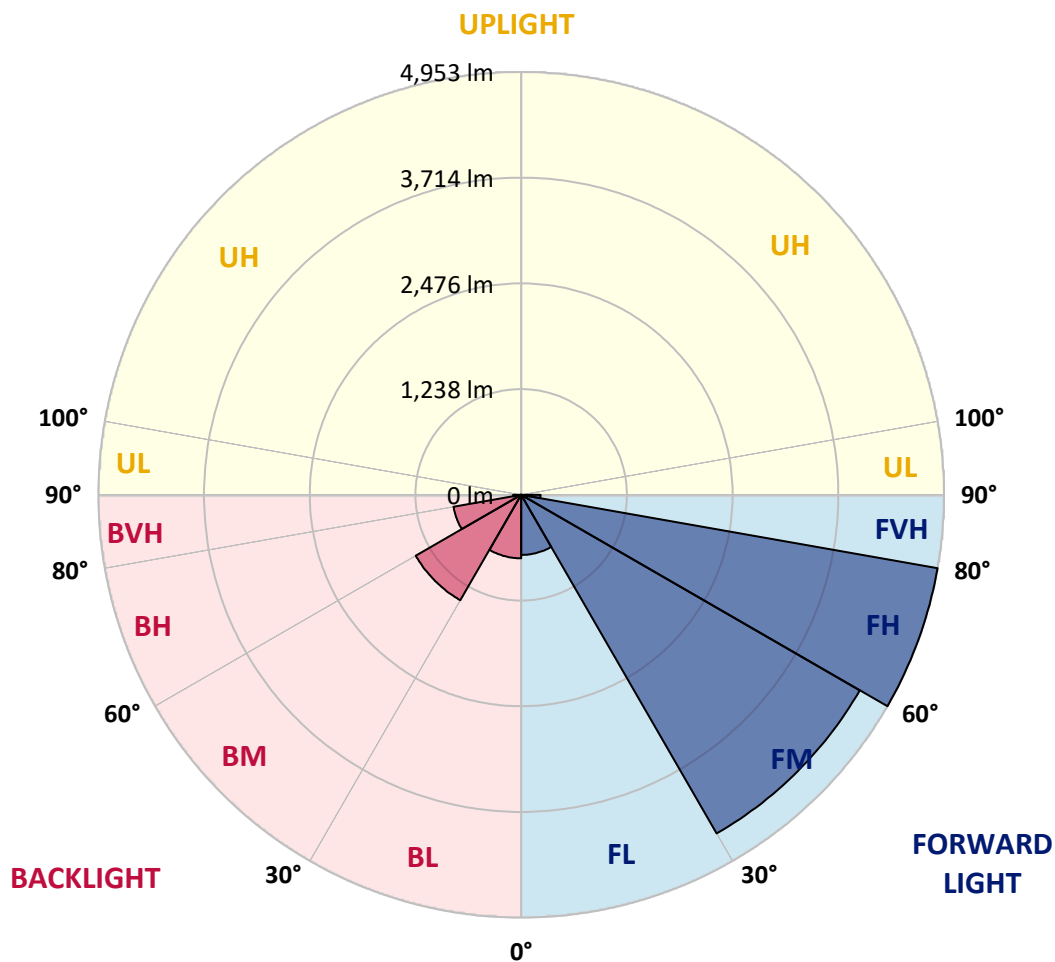
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	704.0	5.2			
FM	(30°-60°)	4579.6	33.8			
FH	(60°-80°)	4952.6	36.6			G2/5000
FVH	(80°-90°)	226.0	1.7			G3/500
BL	(0°-30°)	744.0	5.5	B2/1000		
BM	(30°-60°)	1426.0	10.5	B2/2500		
BH	(60°-80°)	804.7	5.9	B2/1000		G2/1000
BVH	(80°-90°)	94.1	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8
2.5°	1454.4	1449.4	1449.4	1456.9	1459.3	1466.8	1466.8	1469.2	1476.7	1489.1	1503.9
5°	1409.8	1407.3	1409.8	1419.7	1424.7	1439.5	1444.5	1446.9	1461.8	1481.6	1503.9
7.5°	1365.2	1362.7	1367.7	1382.5	1397.4	1419.7	1432.1	1434.6	1456.9	1484.1	1513.8
10°	1350.3	1347.8	1355.3	1367.7	1382.5	1407.3	1427.1	1429.6	1461.8	1494.0	1536.1
12.5°	1370.1	1367.7	1375.1	1387.5	1402.4	1419.7	1442.0	1444.5	1486.6	1528.7	1573.3
15°	1419.7	1419.7	1422.2	1429.6	1444.5	1459.3	1479.2	1481.6	1526.2	1575.8	1620.4
17.5°	1496.5	1491.5	1491.5	1489.1	1499.0	1506.4	1531.2	1533.7	1580.7	1625.3	1669.9
20°	1590.7	1588.2	1578.3	1565.9	1563.4	1568.4	1593.1	1595.6	1642.7	1679.8	1722.0
22.5°	1704.6	1707.1	1684.8	1657.5	1645.2	1652.6	1674.9	1677.4	1712.1	1744.3	1781.4
25°	1855.8	1848.3	1816.1	1776.5	1751.7	1751.7	1774.0	1774.0	1806.2	1826.0	1850.8
27.5°	1999.5	1984.6	1954.9	1897.9	1858.2	1865.7	1888.0	1888.0	1917.7	1925.1	1937.5
30°	2155.6	2140.7	2103.5	2031.7	1979.6	1974.7	2001.9	1999.5	2039.1	2036.6	2026.7
32.5°	2346.3	2338.9	2277.0	2185.3	2115.9	2098.6	2123.3	2125.8	2150.6	2143.2	2111.0
35°	2613.9	2611.4	2554.5	2393.4	2301.7	2269.5	2284.4	2284.4	2301.7	2281.9	2227.4
37.5°	2950.9	2955.8	2906.3	2668.4	2539.6	2485.1	2487.6	2485.1	2490.0	2467.7	2410.8
40°	3287.8	3300.2	3297.8	3010.3	2846.8	2752.7	2718.0	2713.0	2725.4	2715.5	2661.0
42.5°	3731.3	3761.1	3691.7	3431.5	3248.2	3089.6	2995.5	2983.1	3010.3	3022.7	2970.7
45°	4192.2	4182.3	4073.3	3885.0	3719.0	3515.8	3337.4	3317.6	3337.4	3374.6	3320.1
47.5°	4432.5	4425.1	4397.8	4303.7	4278.9	4046.0	3775.9	3758.6	3721.4	3773.5	3709.0
50°	4828.9	4836.4	4724.9	4715.0	4819.0	4690.2	4271.5	4231.8	4164.9	4207.1	4152.5
52.5°	5116.4	5084.1	5014.8	5101.5	5426.1	5356.7	4737.3	4719.9	4658.0	4648.1	4623.3
55°	5232.8	5232.8	5245.2	5445.9	5909.2	5817.5	5242.7	5260.1	5175.8	5106.4	5138.7
57.5°	5267.5	5282.4	5388.9	5720.9	6476.6	6176.8	5800.2	5825.0	5703.6	5564.8	5666.4
60°	5096.5	5141.1	5396.3	5877.0	6796.2	6558.3	6387.4	6394.8	6218.9	6015.7	6194.1
62.5°	4658.0	4712.5	5168.4	5941.4	6744.2	6949.8	6942.4	6959.7	6719.4	6466.7	6689.7
65°	4120.3	4174.8	4660.5	5760.5	6704.5	7229.8	7450.3	7497.4	7187.7	6848.2	6999.4
67.5°	3330.0	3401.8	3862.7	5151.0	6511.3	7460.2	7926.0	7975.6	7549.4	7046.4	6972.1
70°	2413.2	2447.9	2834.4	3914.7	5723.4	7333.9	8302.6	8300.1	7668.3	7031.6	6600.5
72.5°	1162.0	1189.3	1523.8	2430.6	4093.1	6223.9	8030.1	8077.1	7504.8	6816.0	5750.6
75°	478.2	505.4	616.9	1025.7	2148.1	4112.9	6806.1	6917.6	6816.0	6117.3	4499.4
77.5°	297.3	307.2	361.7	530.2	981.2	1920.2	4764.5	4915.7	5401.3	4900.8	2970.7
80°	223.0	230.4	270.1	371.6	619.4	708.6	2366.2	2556.9	3273.0	2812.1	1345.4
82.5°	185.8	188.3	215.6	270.1	421.2	406.3	758.2	844.9	1526.2	1072.8	463.3
85°	173.4	178.4	193.3	193.3	267.6	255.2	314.7	329.5	443.5	366.7	161.0
87.5°	89.2	84.2	171.0	151.1	138.7	123.9	133.8	143.7	166.0	175.9	71.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8
2.5°	1508.9	1516.3	1528.7	1541.1	1556.0	1573.3	1583.2	1595.6	1605.5	1600.6	1598.1
5°	1516.3	1528.7	1556.0	1580.7	1610.5	1645.2	1667.5	1692.2	1712.1	1717.0	1709.6
7.5°	1528.7	1551.0	1588.2	1632.8	1672.4	1717.0	1751.7	1786.4	1811.2	1816.1	1816.1
10°	1558.4	1583.2	1632.8	1692.2	1739.3	1786.4	1826.0	1853.3	1875.6	1885.5	1885.5
12.5°	1600.6	1630.3	1689.8	1761.6	1813.6	1858.2	1880.5	1892.9	1902.8	1912.7	1915.2
15°	1650.1	1682.3	1754.2	1831.0	1885.5	1907.8	1907.8	1905.3	1905.3	1910.3	1915.2
17.5°	1699.7	1734.4	1808.7	1890.4	1925.1	1912.7	1895.4	1888.0	1883.0	1880.5	1888.0
20°	1751.7	1786.4	1860.7	1937.5	1927.6	1875.6	1850.8	1833.5	1818.6	1811.2	1821.1
22.5°	1808.7	1840.9	1917.7	1969.7	1895.4	1816.1	1769.0	1741.8	1717.0	1702.1	1712.1
25°	1875.6	1907.8	1982.1	1979.6	1838.4	1726.9	1652.6	1608.0	1580.7	1565.9	1565.9
27.5°	1954.9	1982.1	2054.0	1954.9	1759.1	1608.0	1499.0	1456.9	1449.4	1437.0	1437.0
30°	2036.6	2058.9	2120.9	1897.9	1650.1	1451.9	1333.0	1313.2	1315.6	1303.2	1305.7
32.5°	2120.9	2143.2	2160.5	1813.6	1508.9	1276.0	1196.7	1181.8	1179.4	1169.5	1159.5
35°	2239.8	2272.0	2165.5	1699.7	1337.9	1129.8	1072.8	1058.0	1043.1	1008.4	1008.4
37.5°	2420.7	2455.4	2153.1	1558.4	1162.0	1015.8	963.8	944.0	919.2	884.5	872.1
40°	2668.4	2668.4	2125.8	1399.9	1020.8	924.2	874.6	849.8	822.6	787.9	780.5
42.5°	2960.8	2891.4	2083.7	1238.8	916.7	862.2	817.6	790.4	758.2	718.5	713.6
45°	3302.7	3114.4	2024.2	1095.1	839.9	825.1	797.8	750.7	696.2	654.1	646.7
47.5°	3634.7	3315.1	1967.3	993.5	775.5	810.2	787.9	708.6	634.3	574.8	567.4
50°	3998.9	3493.5	1900.4	909.3	726.0	800.3	775.5	646.7	564.9	522.8	517.8
52.5°	4363.1	3674.4	1828.5	820.1	683.8	780.5	745.8	602.1	562.4	505.4	498.0
55°	4747.2	3885.0	1744.3	721.0	634.3	740.8	706.1	599.6	579.8	505.4	488.1
57.5°	5121.3	4117.9	1608.0	624.4	579.8	681.4	691.3	584.7	542.6	500.5	480.7
60°	5535.1	4365.6	1382.5	542.6	532.7	631.8	671.4	552.5	500.5	485.6	475.7
62.5°	5867.1	4588.6	1080.3	485.6	493.1	592.2	646.7	532.7	483.1	470.8	468.3
65°	6010.8	4593.6	775.5	436.1	453.4	555.0	621.9	515.4	468.3	463.3	460.8
67.5°	5859.6	4340.8	545.1	389.0	411.3	520.3	589.7	498.0	453.4	455.9	450.9
70°	5371.6	3808.2	398.9	344.4	371.6	483.1	555.0	475.7	436.1	441.0	433.6
72.5°	4494.5	2968.2	319.6	307.2	339.4	443.5	520.3	450.9	408.8	411.3	396.4
75°	3320.1	1967.3	267.6	275.0	302.3	406.3	475.7	418.7	379.1	369.2	359.3
77.5°	1974.7	1010.9	220.5	240.3	270.1	361.7	426.2	379.1	346.9	329.5	322.1
80°	815.1	408.8	180.9	203.2	235.4	322.1	376.6	332.0	309.7	292.4	282.5
82.5°	324.6	200.7	143.7	166.0	198.2	280.0	329.5	292.4	270.1	257.7	230.4
85°	123.9	99.1	96.6	116.4	148.7	215.6	272.5	245.3	227.9	195.7	188.3
87.5°	49.6	44.6	44.6	57.0	84.2	136.3	195.7	171.0	178.4	141.2	143.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)