

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: P258189

Luminaire Tested: **ARCH-M-AF48-160-D-U-T2U-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P258189
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1802-616-3)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-160-D-U-T2U-7030-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 1030mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12493.8 lumens
Efficiency: N/A
Efficacy: 77.6 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 161
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

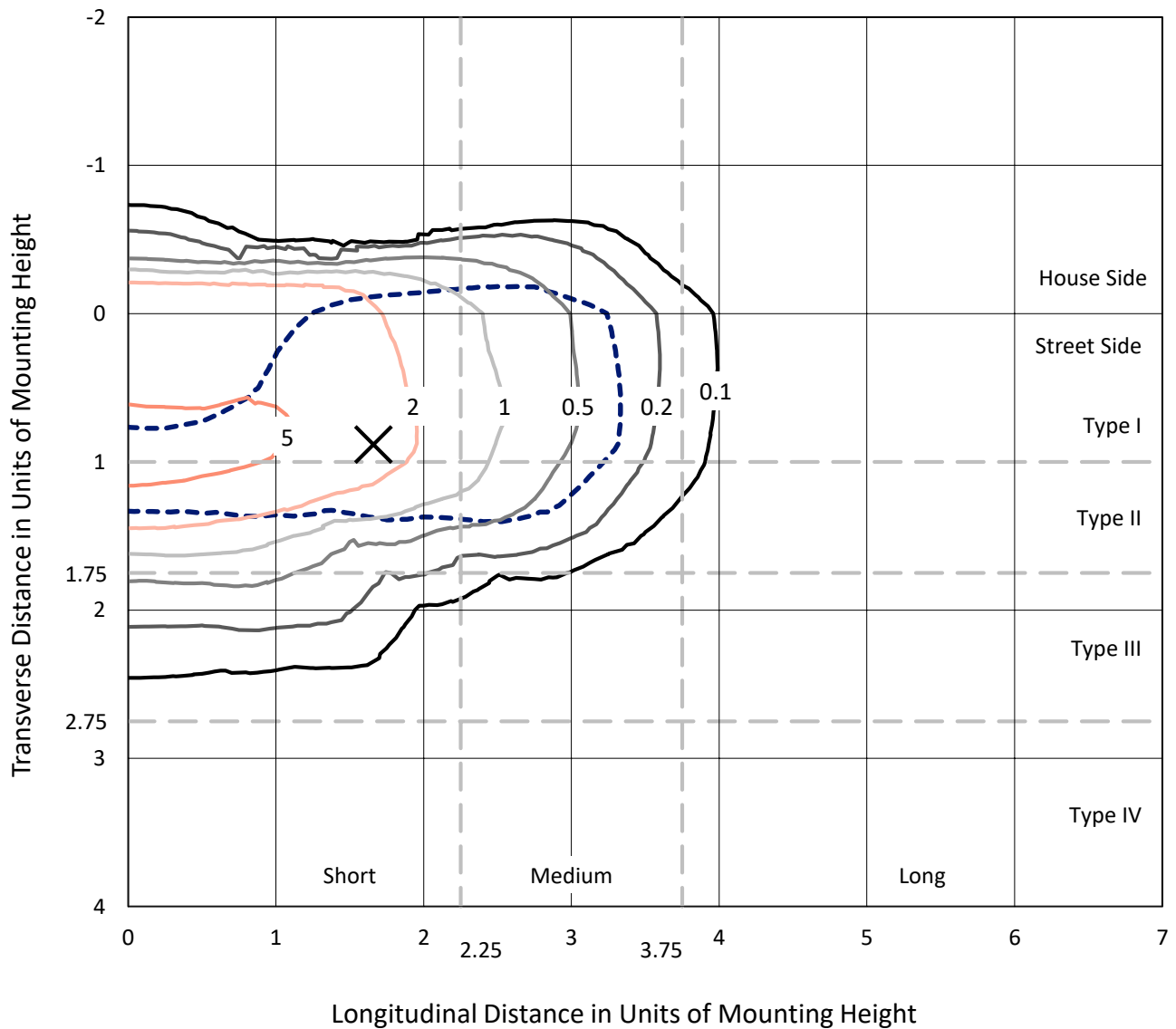


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

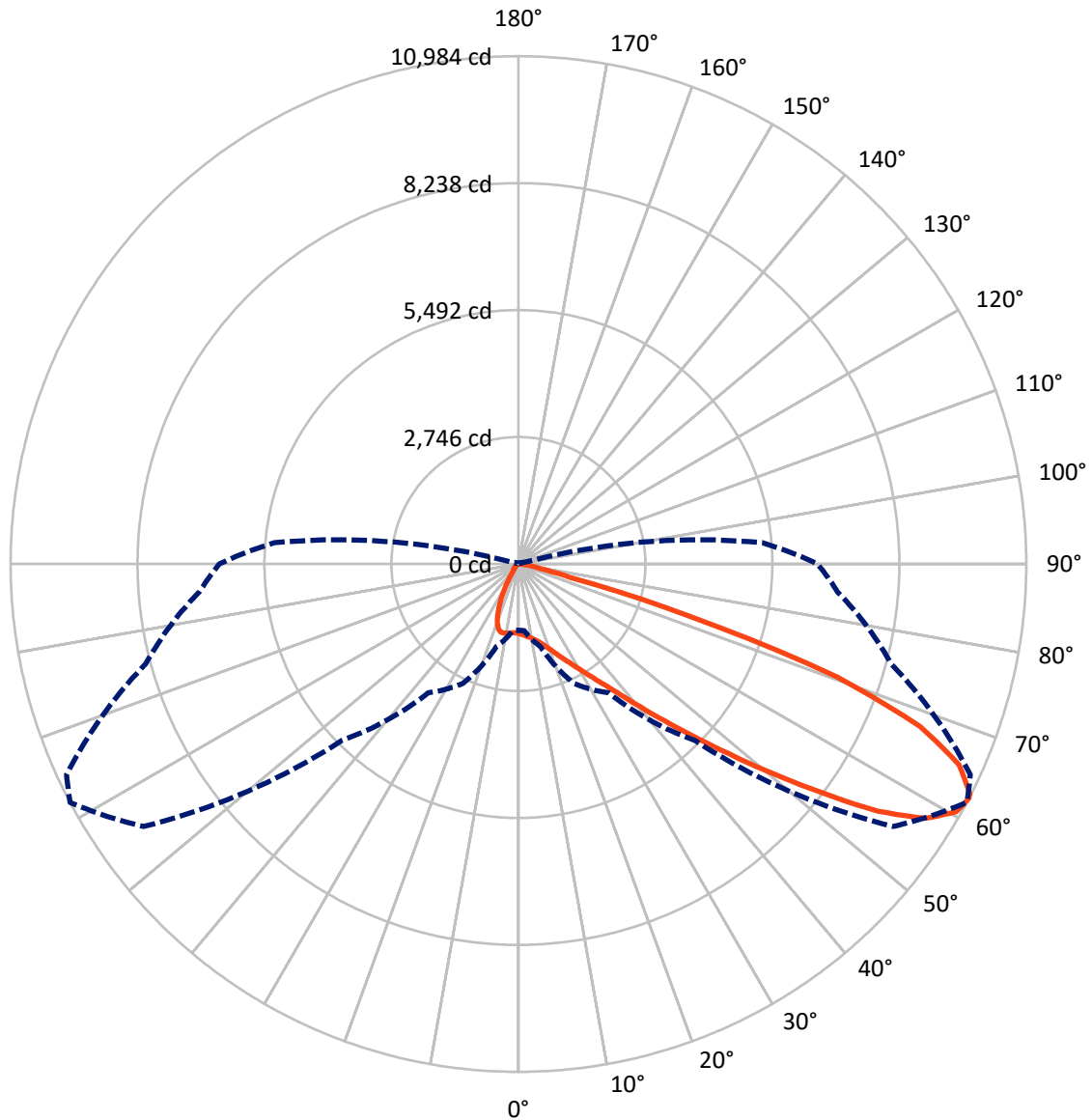


Based on 20 foot mounting height. Maximum calculated value = 7.2 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 62-Deg Lateral - - - Horizontal Cone Through 62-Deg Vertical

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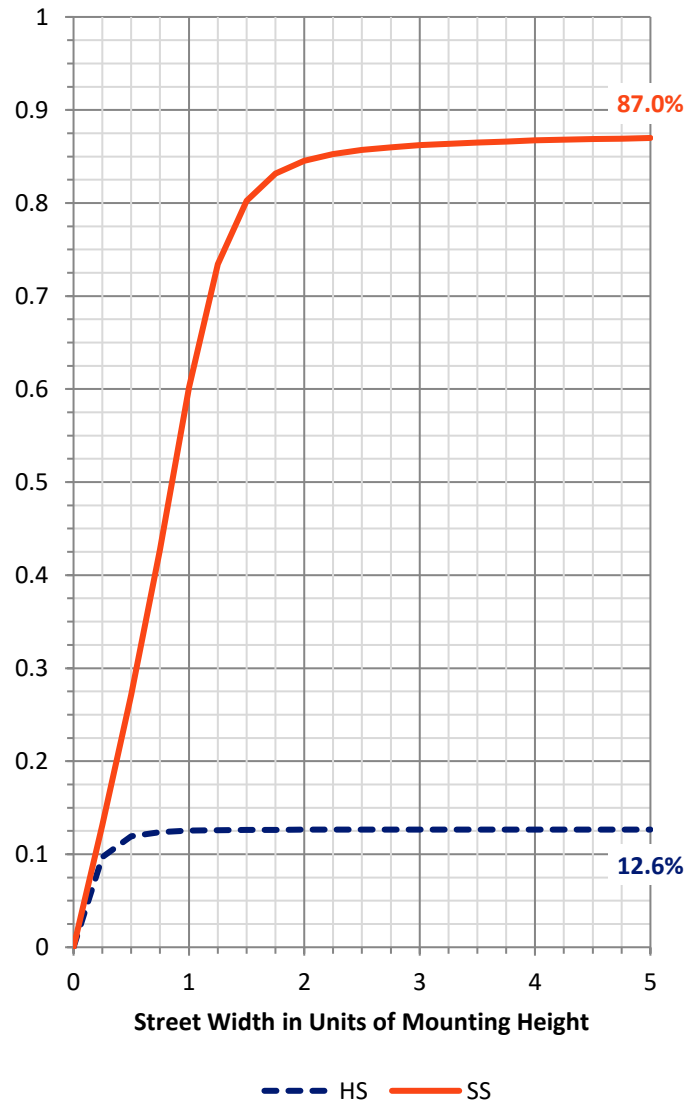
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1597.5	0.0	1597.5
	% Fixture	12.8	0.0	12.8
Street Side	Lumens	10896.3	0.0	10896.3
	% Fixture	87.2	0.0	87.2
Total	Lumens	12493.8	0.0	12493.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.8	1.2
10°-20°	404.5	3.2
20°-30°	679.3	5.4
30°-40°	1302.1	10.4
40°-50°	2659.6	21.3
50°-60°	3519.6	28.2
60°-70°	2734.1	21.9
70°-80°	986.9	7.9
80°-90°	62.9	0.5
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°-90°	12493.8	100.0
0°-180°	12493.8	100.0



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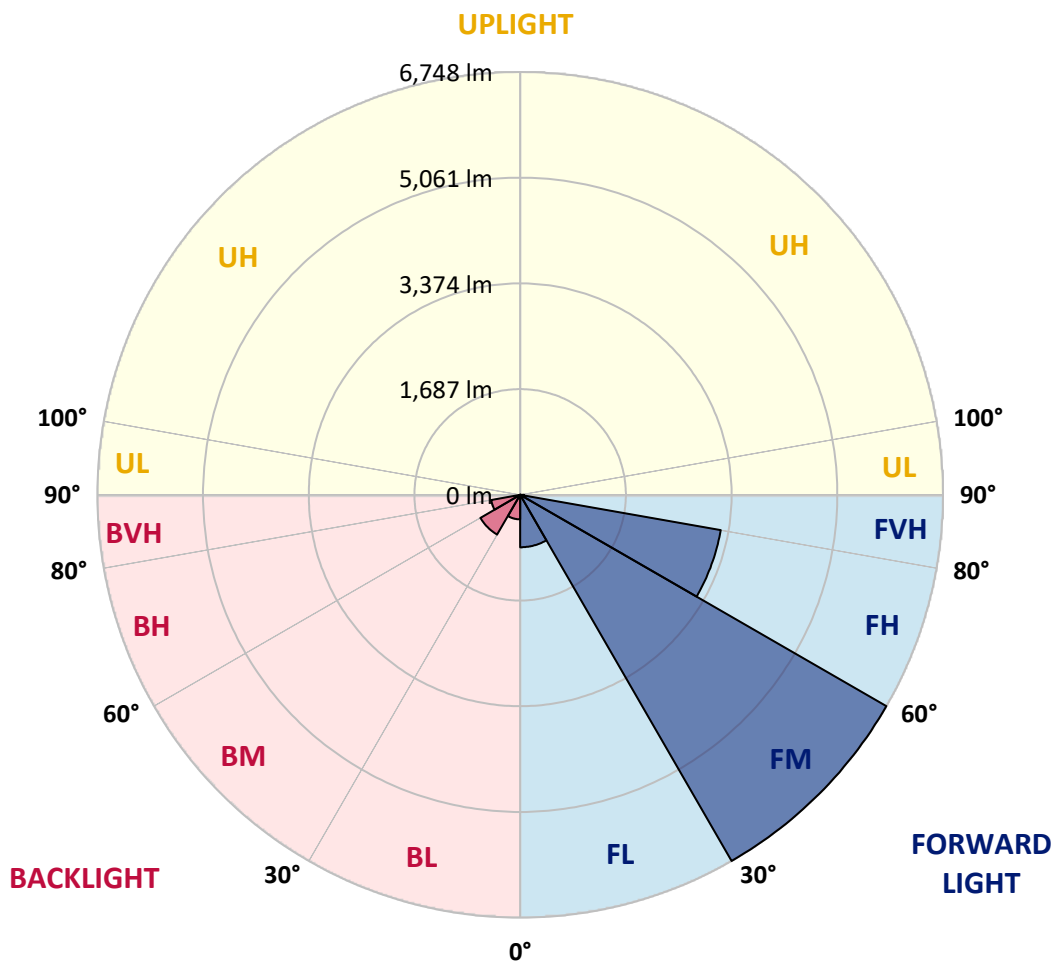
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	837.6	6.7			
FM (30°-60°)	6747.9	54.0			
FH (60°-80°)	3250.6	26.0			G2/5000
FVH (80°-90°)	60.2	0.5			G1/100
BL (0°-30°)	391.0	3.1	B1/500		
BM (30°-60°)	733.4	5.9	B1/1000		
BH (60°-80°)	470.4	3.8	B1/500		G1/500
BVH (80°-90°)	2.7	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	62°	65°	75°	85°
0°	1505.0	1505.0	1505.0	1505.0	1505.0	1505.0	1505.0	1505.0	1505.0	1505.0	1505.0
2.5°	1544.9	1541.8	1538.8	1535.7	1535.7	1532.7	1529.6	1523.5	1517.3	1511.2	1508.1
5°	1572.6	1569.5	1566.4	1569.5	1566.4	1566.4	1563.4	1557.3	1551.2	1541.8	1532.7
7.5°	1594.1	1591.1	1588.0	1591.1	1594.1	1597.2	1600.2	1594.1	1591.1	1578.8	1569.5
10°	1621.7	1618.6	1615.6	1621.7	1621.7	1637.1	1640.2	1637.1	1634.1	1624.8	1609.5
12.5°	1661.8	1664.8	1664.8	1670.9	1677.0	1695.4	1701.6	1692.4	1692.4	1680.1	1661.8
15°	1735.4	1735.4	1735.4	1741.6	1744.7	1769.2	1775.4	1766.0	1772.3	1750.8	1732.3
17.5°	1806.0	1809.2	1815.3	1827.6	1827.6	1849.1	1861.3	1861.3	1873.6	1845.9	1821.4
20°	1876.7	1879.8	1889.0	1916.6	1916.6	1944.3	1965.8	1975.0	1987.3	1959.7	1916.6
22.5°	1953.4	1953.4	1968.9	2011.8	2002.6	2057.9	2097.9	2113.2	2125.5	2088.6	2021.1
25°	2070.3	2057.9	2070.3	2110.2	2104.0	2180.9	2254.4	2269.9	2285.1	2242.2	2140.8
27.5°	2291.3	2272.9	2229.9	2233.0	2233.0	2322.1	2426.5	2448.0	2457.2	2420.3	2294.5
30°	2733.6	2733.6	2573.9	2466.4	2395.7	2475.6	2623.1	2659.9	2672.3	2617.0	2451.0
32.5°	3504.6	3504.6	3209.7	2936.4	2669.1	2669.1	2838.1	2905.6	2918.0	2853.5	2659.9
35°	4487.5	4481.4	4039.0	3664.3	3142.2	2945.6	3090.0	3203.6	3240.4	3154.5	2930.3
37.5°	5531.8	5491.9	5015.8	4585.7	3870.1	3387.9	3430.8	3581.4	3615.2	3544.5	3280.4
40°	6379.5	6333.4	5949.5	5590.1	4810.0	4094.3	3922.3	4060.5	4100.5	4002.1	3698.1
42.5°	7147.4	7033.8	6769.6	6511.7	5891.2	5316.8	4576.6	4631.8	4674.8	4570.5	4168.0
45°	7703.4	7528.3	7393.1	7313.3	6984.6	6659.1	5424.2	5313.8	5329.1	5200.0	4681.0
47.5°	7718.7	7595.8	7608.2	7817.0	7952.1	7939.9	6526.9	6133.9	6075.5	5860.4	5227.7
50°	6981.5	7052.1	7276.4	7872.2	8603.3	9045.6	7838.5	7104.4	6929.3	6542.3	5771.4
52.5°	5752.9	5863.5	6284.3	7288.6	8698.5	9773.6	9199.2	8213.2	7899.9	7218.1	6189.1
55°	4506.0	4512.1	4954.4	5977.1	8062.7	9905.7	10286.5	9432.6	8953.5	7730.9	6465.5
57.5°	3099.1	3268.1	3830.2	4518.2	6628.3	9248.4	10695.0	10378.6	9761.2	8047.4	6659.1
60°	2030.2	2039.5	2693.7	3489.2	4512.1	7525.2	10446.2	10879.3	10415.4	8234.8	6791.1
62°	1431.3	1446.7	1852.2	2850.3	3400.1	5393.6	9896.3	10983.8	10784.1	8345.3	6929.3
62.5°	1326.9	1339.2	1680.1	2690.6	3194.4	4837.7	9699.8	10959.1	10839.4	8382.2	6978.5
65°	973.7	973.7	1099.5	1849.1	2340.5	2613.8	8219.3	10470.8	10765.7	8677.1	7162.8
67.5°	752.5	758.7	801.6	1139.6	1766.0	1585.0	5246.2	9371.1	9997.8	9113.2	7267.2
70°	648.1	645.0	675.8	755.6	1274.7	1053.5	2309.7	7313.3	8373.0	9002.6	7172.0
72.5°	479.1	482.3	552.9	663.4	887.6	684.9	1044.3	3882.4	5430.4	7046.0	6146.1
75°	307.1	310.2	390.0	522.1	638.8	448.4	602.0	1157.9	2223.8	3907.0	3759.5
77.5°	205.9	212.0	254.9	365.5	559.0	279.4	377.8	485.3	669.5	1465.0	1348.4
80°	138.2	138.2	162.8	245.8	353.2	233.5	202.6	322.6	347.1	454.6	227.3
82.5°	92.1	92.1	107.5	162.8	230.3	208.9	122.8	175.1	202.6	227.3	79.9
85°	55.2	55.2	73.8	101.4	150.4	116.7	79.9	98.4	104.5	144.3	43.0
87.5°	33.8	30.7	49.1	70.7	79.9	70.7	52.2	52.2	55.2	79.9	21.6
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°	1505.0	1505.0	1505.0	1505.0	1505.0	1505.0	1505.0	1505.0	1505.0	1505.0	1505.0
2.5°	1502.0	1498.9	1495.9	1489.6	1480.5	1474.4	1468.2	1462.0	1455.9	1455.9	1465.0
5°	1529.6	1520.5	1508.1	1495.9	1477.4	1465.0	1455.9	1443.7	1437.5	1437.5	1440.6
7.5°	1563.4	1554.2	1532.7	1511.2	1483.5	1462.0	1440.6	1412.9	1391.4	1382.1	1391.4
10°	1600.2	1588.0	1557.3	1523.5	1492.7	1437.5	1366.9	1280.8	1207.1	1173.3	1188.6
12.5°	1646.3	1631.0	1594.1	1548.1	1477.4	1342.2	1167.2	967.5	841.7	783.3	795.5
15°	1714.0	1692.4	1640.2	1569.5	1412.9	1121.1	835.5	605.1	488.4	439.2	445.3
17.5°	1793.7	1766.0	1695.4	1563.4	1247.0	807.8	497.5	353.2	304.1	291.8	291.8
20°	1879.8	1842.8	1750.8	1517.3	995.2	506.9	310.2	270.3	251.9	242.7	242.7
22.5°	1968.9	1919.6	1796.9	1409.8	709.5	316.5	254.9	227.3	205.9	196.5	196.5
25°	2076.4	2011.8	1842.8	1222.5	451.5	254.9	218.1	190.4	169.0	156.7	159.7
27.5°	2202.2	2119.3	1882.9	989.1	291.8	221.1	181.3	153.6	135.2	129.0	129.0
30°	2334.4	2236.1	1892.1	740.2	236.5	190.4	150.4	125.9	113.6	107.5	107.5
32.5°	2515.5	2386.5	1864.4	491.4	199.6	159.7	125.9	104.5	95.2	92.1	92.1
35°	2755.2	2583.1	1799.9	304.1	169.0	132.1	104.5	92.1	82.9	79.9	79.9
37.5°	3059.3	2856.5	1686.3	208.9	144.3	107.5	89.0	79.9	73.8	70.7	70.7
40°	3464.6	3188.1	1538.8	181.3	122.8	92.1	76.8	70.7	64.5	64.5	64.5
42.5°	3894.6	3590.6	1348.4	159.7	104.5	79.9	67.5	61.4	58.4	55.2	55.2
45°	4364.6	4002.1	1111.9	141.3	89.0	70.7	61.4	52.2	49.1	49.1	49.1
47.5°	4831.5	4426.1	853.9	122.8	76.8	61.4	52.2	46.1	43.0	39.9	39.9
50°	5310.6	4810.0	626.6	107.5	67.5	55.2	46.1	39.9	33.8	30.7	30.7
52.5°	5657.8	5040.3	457.7	92.1	58.4	46.1	36.8	30.7	24.6	21.6	21.6
55°	5912.7	5181.6	334.8	76.8	52.2	39.9	30.7	24.6	18.5	18.5	15.4
57.5°	6112.3	5249.3	251.9	67.5	46.1	33.8	24.6	18.5	15.4	12.2	12.2
60°	6265.9	5252.3	187.4	55.2	39.9	27.7	18.5	12.2	9.2	9.2	9.2
62°	6468.5	5292.2	153.6	46.1	36.8	24.6	15.4	9.2	6.1	3.1	3.1
62.5°	6526.9	5307.6	147.4	46.1	33.8	21.6	12.2	9.2	6.1	3.1	3.1
65°	6797.2	5335.2	113.6	36.8	27.7	18.5	9.2	6.1	0.0	0.0	0.0
67.5°	7043.0	5292.2	82.9	27.7	21.6	12.2	9.2	3.1	0.0	0.0	0.0
70°	7018.4	4997.3	58.4	18.5	15.4	9.2	6.1	0.0	0.0	0.0	0.0
72.5°	5783.6	3741.1	39.9	15.4	9.2	6.1	3.1	0.0	0.0	0.0	0.0
75°	3492.4	1637.1	27.7	9.2	9.2	6.1	3.1	0.0	0.0	0.0	0.0
77.5°	1145.7	592.8	18.5	6.1	6.1	3.1	3.1	0.0	0.0	0.0	0.0
80°	187.4	98.4	9.2	6.1	6.1	3.1	3.1	0.0	0.0	0.0	0.0
82.5°	58.4	24.6	6.1	6.1	3.1	3.1	0.0	0.0	0.0	0.0	0.0
85°	21.6	9.2	6.1	6.1	3.1	3.1	0.0	0.0	0.0	0.0	0.0
87.5°	9.2	6.1	6.1	6.1	3.1	3.1	0.0	0.0	0.0	0.0	0.0
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)