

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: P257858

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P257858
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-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 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: 13214.5 lumens
Efficiency: N/A
Efficacy: 82.1 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

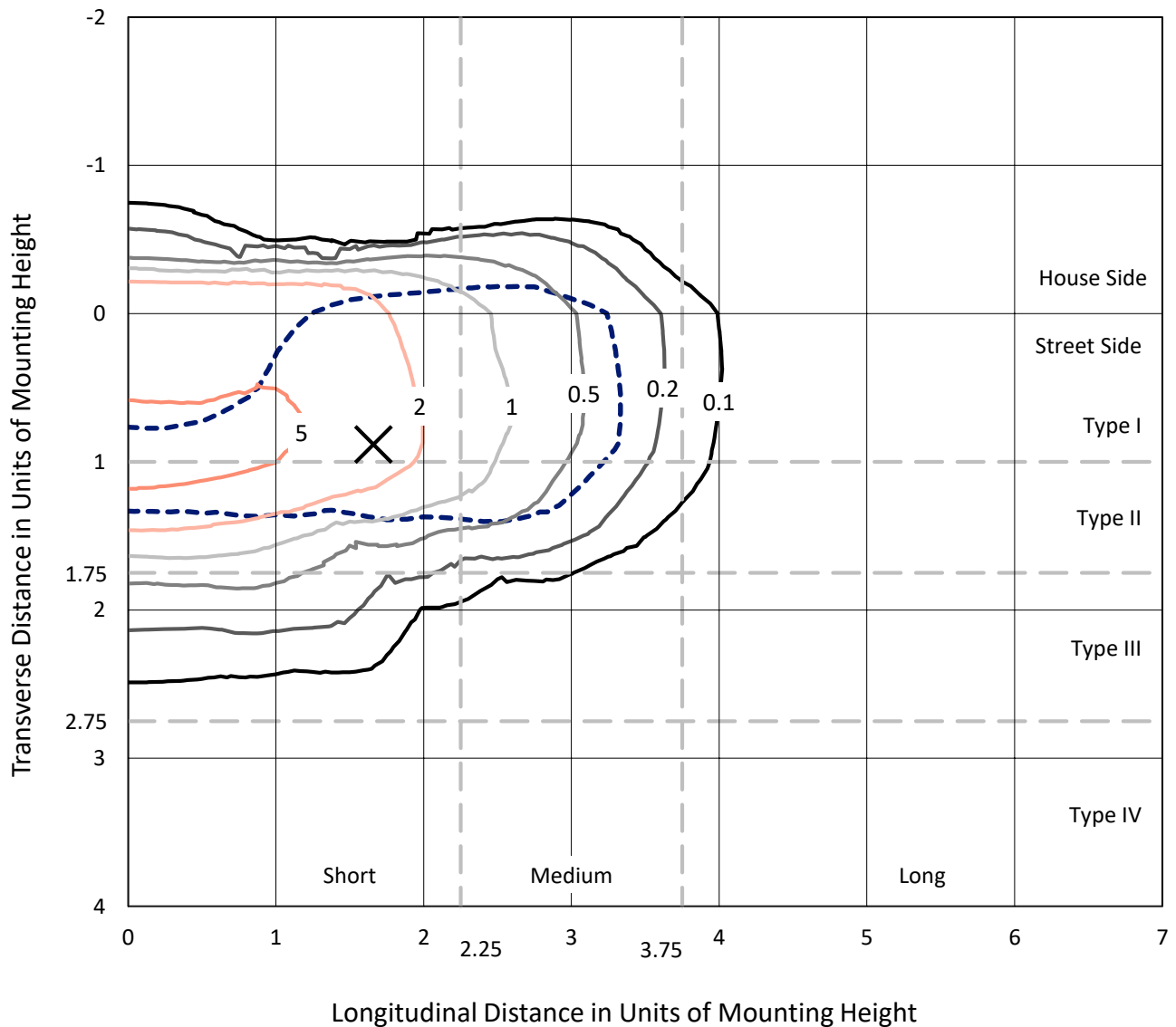


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

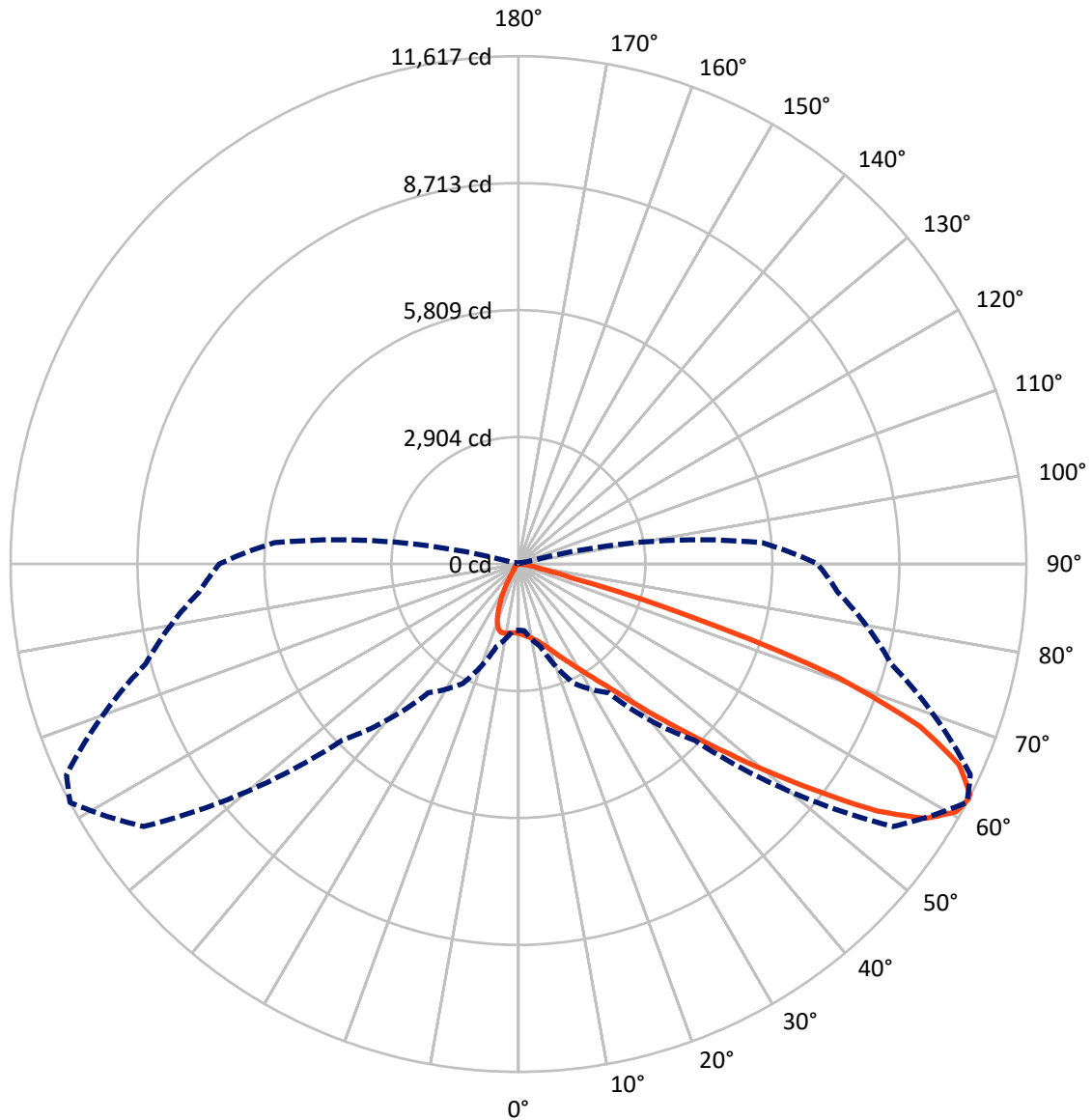


Based on 20 foot mounting height. Maximum calculated value = 7.6 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



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



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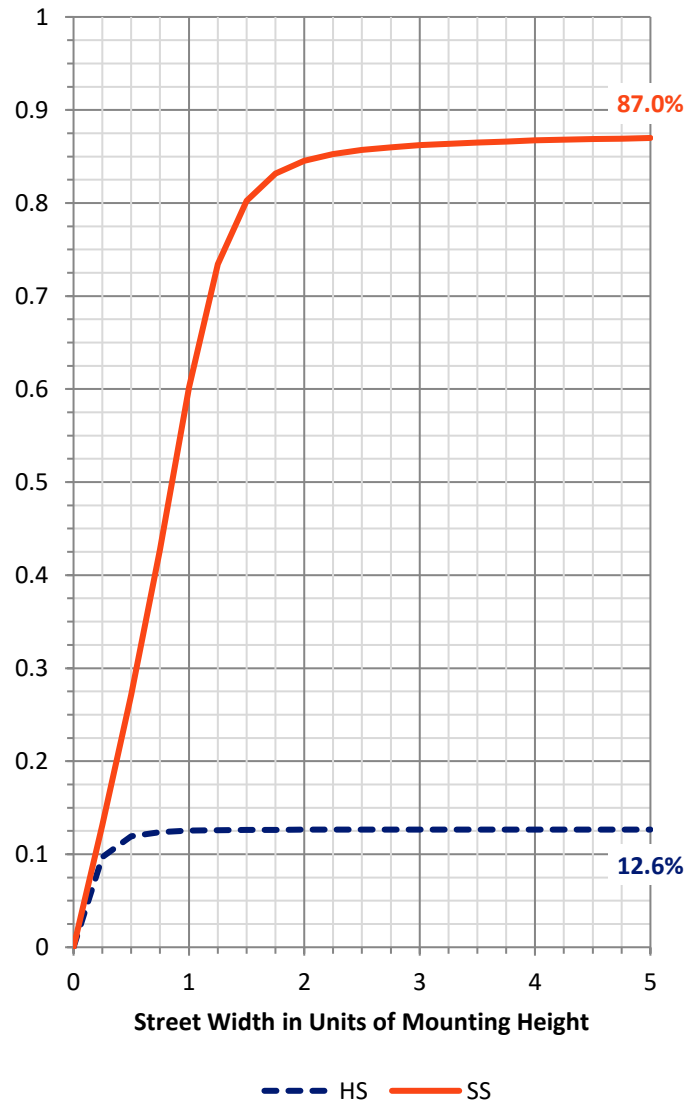
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1689.7	0.0	1689.7
	% Fixture	12.8	0.0	12.8
Street Side	Lumens	11524.8	0.0	11524.8
	% Fixture	87.2	0.0	87.2
Total	Lumens	13214.5	0.0	13214.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.2	1.2
10°-20°	427.8	3.2
20°-30°	718.5	5.4
30°-40°	1377.2	10.4
40°-50°	2813.0	21.3
50°-60°	3722.6	28.2
60°-70°	2891.8	21.9
70°-80°	1043.8	7.9
80°-90°	66.5	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°	13214.5	100.0
0°-180°	13214.5	100.0

Coefficient of Utilization



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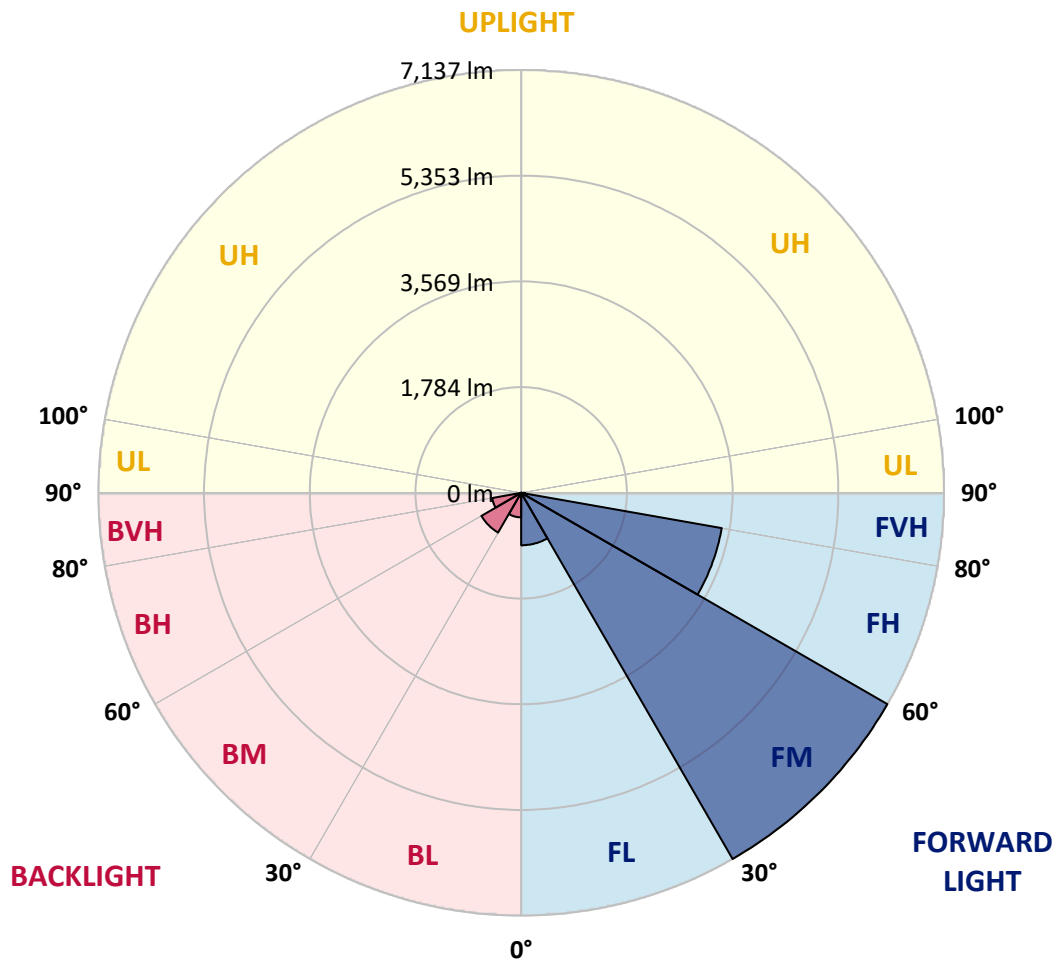
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	885.9	6.7			
FM	(30°-60°)	7137.2	54.0			
FH	(60°-80°)	3438.1	26.0			G2/5000
FVH	(80°-90°)	63.6	0.5			G1/100
BL	(0°-30°)	413.5	3.1	B1/500		
BM	(30°-60°)	775.7	5.9	B1/1000		
BH	(60°-80°)	497.5	3.8	B1/500		G1/500
BVH	(80°-90°)	2.9	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°	1591.8	1591.8	1591.8	1591.8	1591.8	1591.8	1591.8	1591.8	1591.8	1591.8	1591.8
2.5°	1634.1	1630.9	1627.6	1624.3	1624.3	1621.1	1617.8	1611.4	1604.8	1598.4	1595.1
5°	1663.3	1660.0	1656.9	1660.0	1656.9	1656.9	1653.6	1647.1	1640.6	1630.9	1621.1
7.5°	1686.0	1682.9	1679.6	1682.9	1686.0	1689.3	1692.6	1686.0	1682.9	1669.9	1660.0
10°	1715.3	1712.0	1708.8	1715.3	1715.3	1731.5	1734.8	1731.5	1728.3	1718.6	1702.3
12.5°	1757.5	1760.8	1760.8	1767.2	1773.8	1793.2	1799.8	1790.1	1790.1	1777.1	1757.5
15°	1835.5	1835.5	1835.5	1842.0	1845.3	1871.3	1877.7	1868.0	1874.5	1851.7	1832.3
17.5°	1910.3	1913.4	1920.0	1933.0	1933.0	1955.7	1968.7	1968.7	1981.7	1952.5	1926.4
20°	1984.9	1988.2	1997.9	2027.2	2027.2	2056.4	2079.1	2088.9	2101.9	2072.7	2027.2
22.5°	2066.2	2066.2	2082.4	2127.8	2118.1	2176.6	2218.9	2235.0	2248.1	2209.1	2137.7
25°	2189.6	2176.6	2189.6	2231.9	2225.3	2306.5	2384.5	2400.8	2417.0	2371.5	2264.3
27.5°	2423.5	2404.0	2358.5	2361.8	2361.8	2456.0	2566.5	2589.2	2598.9	2559.9	2426.7
30°	2891.4	2891.4	2722.4	2608.7	2534.0	2618.4	2774.3	2813.3	2826.3	2767.9	2592.5
32.5°	3706.8	3706.8	3394.9	3105.8	2823.1	2823.1	3001.7	3073.3	3086.2	3018.0	2813.3
35°	4746.3	4739.8	4272.0	3875.7	3323.4	3115.5	3268.2	3388.4	3427.4	3336.4	3099.2
37.5°	5850.9	5808.6	5305.1	4850.3	4093.3	3583.3	3628.8	3788.0	3823.7	3749.0	3469.6
40°	6747.5	6698.8	6292.7	5912.7	5087.4	4330.5	4148.6	4294.8	4337.0	4233.1	3911.5
42.5°	7559.7	7439.5	7160.1	6887.2	6231.0	5623.5	4840.5	4899.0	4944.5	4834.1	4408.5
45°	8147.7	7962.5	7819.5	7735.1	7387.5	7043.1	5737.2	5620.2	5636.5	5500.0	4951.0
47.5°	8164.0	8034.1	8047.0	8267.9	8410.8	8397.8	6903.5	6487.7	6425.9	6198.5	5529.3
50°	7384.3	7458.9	7696.2	8326.4	9099.6	9567.4	8290.6	7514.2	7329.0	6919.8	6104.3
52.5°	6084.8	6201.7	6646.8	7709.2	9200.3	10337.3	9729.8	8687.0	8355.7	7634.4	6546.1
55°	4765.8	4772.3	5240.2	6321.9	8527.8	10477.1	10879.9	9976.7	9470.0	8177.0	6838.5
57.5°	3277.9	3456.7	4051.1	4778.8	7010.7	9781.8	11311.9	10977.3	10324.3	8511.6	7043.1
60°	2147.4	2157.1	2849.1	3690.5	4772.3	7959.3	11048.8	11506.9	11016.3	8709.7	7182.9
62°	1513.9	1530.1	1959.0	3014.7	3596.3	5704.7	10467.2	11617.3	11406.1	8826.6	7329.0
62.5°	1403.4	1416.4	1777.1	2845.8	3378.6	5116.7	10259.4	11591.4	11464.6	8865.7	7381.0
65°	1029.8	1029.8	1163.0	1955.7	2475.5	2764.6	8693.4	11074.8	11386.7	9177.5	7576.0
67.5°	796.0	802.4	847.9	1205.2	1868.0	1676.3	5548.8	9911.8	10574.4	9638.9	7686.4
70°	685.5	682.2	714.7	799.1	1348.2	1114.3	2443.0	7735.1	8855.9	9521.9	7585.7
72.5°	506.8	510.0	584.7	701.7	938.9	724.5	1104.6	4106.3	5743.7	7452.5	6500.6
75°	324.9	328.2	412.6	552.3	675.8	474.3	636.8	1224.8	2352.1	4132.3	3976.4
77.5°	217.7	224.1	269.6	386.6	591.3	295.6	399.6	513.3	708.2	1549.7	1426.2
80°	146.2	146.2	172.2	259.9	373.6	246.9	214.4	341.2	367.1	480.8	240.4
82.5°	97.5	97.5	113.8	172.2	243.7	221.0	129.9	185.2	214.4	240.4	84.5
85°	58.5	58.5	77.9	107.2	159.2	123.5	84.5	103.9	110.5	152.7	45.5
87.5°	35.7	32.5	52.0	74.7	84.5	74.7	55.2	55.2	58.5	84.5	22.7
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°	1591.8	1591.8	1591.8	1591.8	1591.8	1591.8	1591.8	1591.8	1591.8	1591.8	1591.8
2.5°	1588.6	1585.4	1582.1	1575.7	1565.8	1559.4	1552.8	1546.4	1539.8	1539.8	1549.7
5°	1617.8	1608.1	1595.1	1582.1	1562.7	1549.7	1539.8	1526.9	1520.4	1520.4	1523.6
7.5°	1653.6	1643.9	1621.1	1598.4	1569.1	1546.4	1523.6	1494.4	1471.6	1461.9	1471.6
10°	1692.6	1679.6	1647.1	1611.4	1578.8	1520.4	1445.6	1354.7	1276.7	1241.0	1257.2
12.5°	1741.3	1725.0	1686.0	1637.3	1562.7	1419.7	1234.5	1023.4	890.2	828.4	841.4
15°	1812.8	1790.1	1734.8	1660.0	1494.4	1185.8	883.6	640.0	516.6	464.5	471.1
17.5°	1897.3	1868.0	1793.2	1653.6	1319.0	854.4	526.3	373.6	321.6	308.6	308.6
20°	1988.2	1949.2	1851.7	1604.8	1052.6	536.0	328.2	285.9	266.4	256.7	256.7
22.5°	2082.4	2030.5	1900.4	1491.2	750.4	334.6	269.6	240.4	217.7	208.0	208.0
25°	2196.1	2127.8	1949.2	1293.0	477.5	269.6	230.7	201.4	178.7	165.7	168.9
27.5°	2329.3	2241.6	1991.5	1046.1	308.6	233.9	191.7	162.4	142.9	136.5	136.5
30°	2469.0	2365.1	2001.2	783.0	250.1	201.4	159.2	133.2	120.2	113.8	113.8
32.5°	2660.7	2524.2	1971.9	519.8	211.1	168.9	133.2	110.5	100.7	97.5	97.5
35°	2914.1	2732.1	1903.7	321.6	178.7	139.7	110.5	97.5	87.7	84.5	84.5
37.5°	3235.7	3021.3	1783.5	221.0	152.7	113.8	94.2	84.5	77.9	74.7	74.7
40°	3664.5	3372.2	1627.6	191.7	129.9	97.5	81.2	74.7	68.2	68.2	68.2
42.5°	4119.3	3797.7	1426.2	168.9	110.5	84.5	71.5	65.0	61.7	58.5	58.5
45°	4616.4	4233.1	1176.0	149.5	94.2	74.7	65.0	55.2	52.0	52.0	52.0
47.5°	5110.2	4681.3	903.2	129.9	81.2	65.0	55.2	48.7	45.5	42.2	42.2
50°	5617.0	5087.4	662.8	113.8	71.5	58.5	48.7	42.2	35.7	32.5	32.5
52.5°	5984.1	5331.1	484.1	97.5	61.7	48.7	39.0	32.5	26.0	22.7	22.7
55°	6253.7	5480.6	354.1	81.2	55.2	42.2	32.5	26.0	19.5	19.5	16.3
57.5°	6464.8	5552.0	266.4	71.5	48.7	35.7	26.0	19.5	16.3	13.0	13.0
60°	6627.3	5555.2	198.1	58.5	42.2	29.3	19.5	13.0	9.7	9.7	9.7
62°	6841.7	5597.5	162.4	48.7	39.0	26.0	16.3	9.7	6.5	3.3	3.3
62.5°	6903.5	5613.7	155.9	48.7	35.7	22.7	13.0	9.7	6.5	3.3	3.3
65°	7189.3	5643.0	120.2	39.0	29.3	19.5	9.7	6.5	0.0	0.0	0.0
67.5°	7449.2	5597.5	87.7	29.3	22.7	13.0	9.7	3.3	0.0	0.0	0.0
70°	7423.2	5285.6	61.7	19.5	16.3	9.7	6.5	0.0	0.0	0.0	0.0
72.5°	6117.2	3956.9	42.2	16.3	9.7	6.5	3.3	0.0	0.0	0.0	0.0
75°	3693.8	1731.5	29.3	9.7	9.7	6.5	3.3	0.0	0.0	0.0	0.0
77.5°	1211.8	627.0	19.5	6.5	6.5	3.3	3.3	0.0	0.0	0.0	0.0
80°	198.1	103.9	9.7	6.5	6.5	3.3	3.3	0.0	0.0	0.0	0.0
82.5°	61.7	26.0	6.5	6.5	3.3	3.3	0.0	0.0	0.0	0.0	0.0
85°	22.7	9.7	6.5	6.5	3.3	3.3	0.0	0.0	0.0	0.0	0.0
87.5°	9.7	6.5	6.5	6.5	3.3	3.3	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)