

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: P257856

Luminaire Tested: **ARCH-M-AF48-140-D-U-T2U-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P257856
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-AF48-140-D-U-T2U-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 905mA 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: 12100.5 lumens
Efficiency: N/A
Efficacy: 85.8 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): 141
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

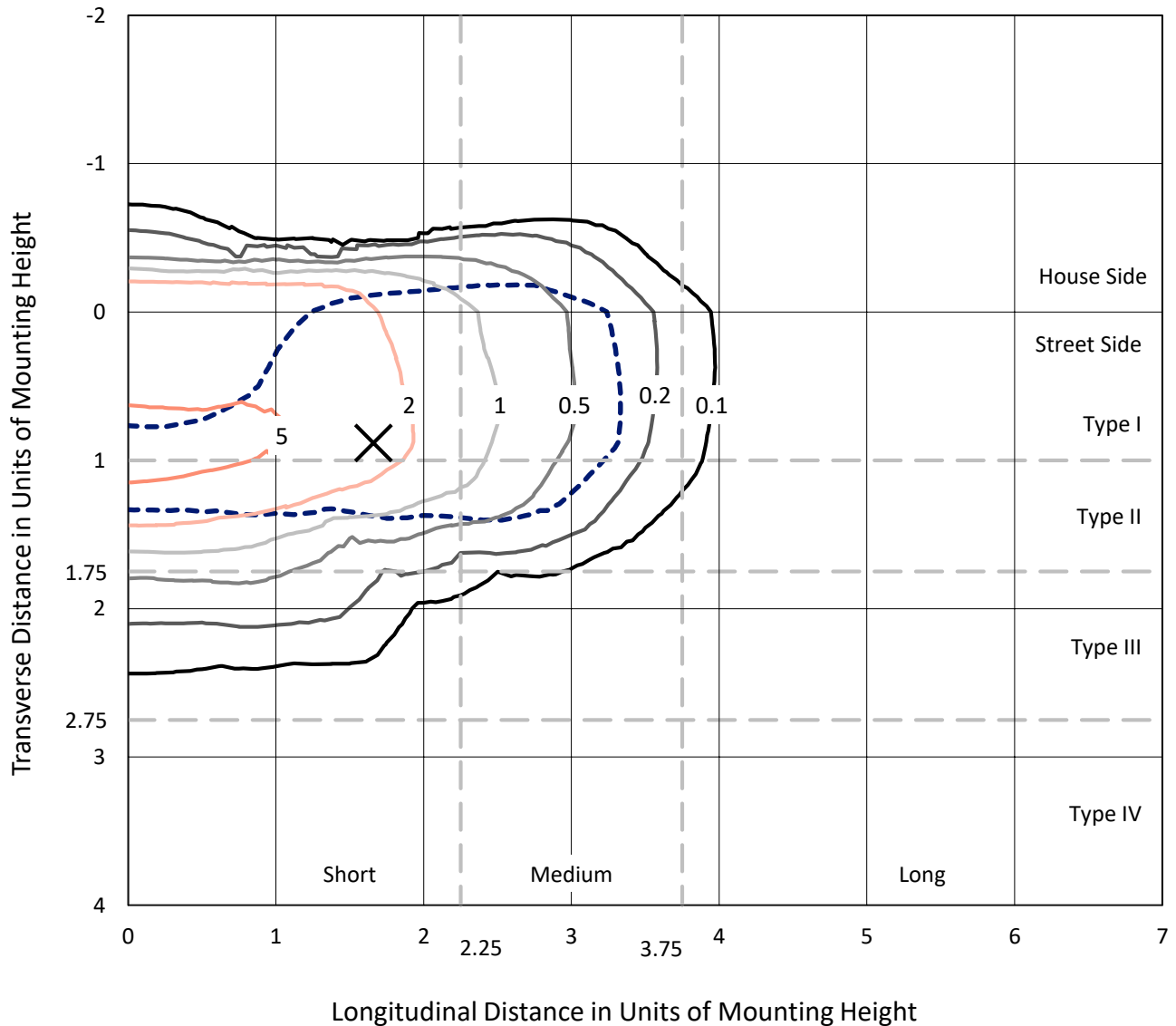


REPORT NUMBER: P257856

CATALOG NUMBER: ARCH-M-AF48-140-D-U-T2U-HSS

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

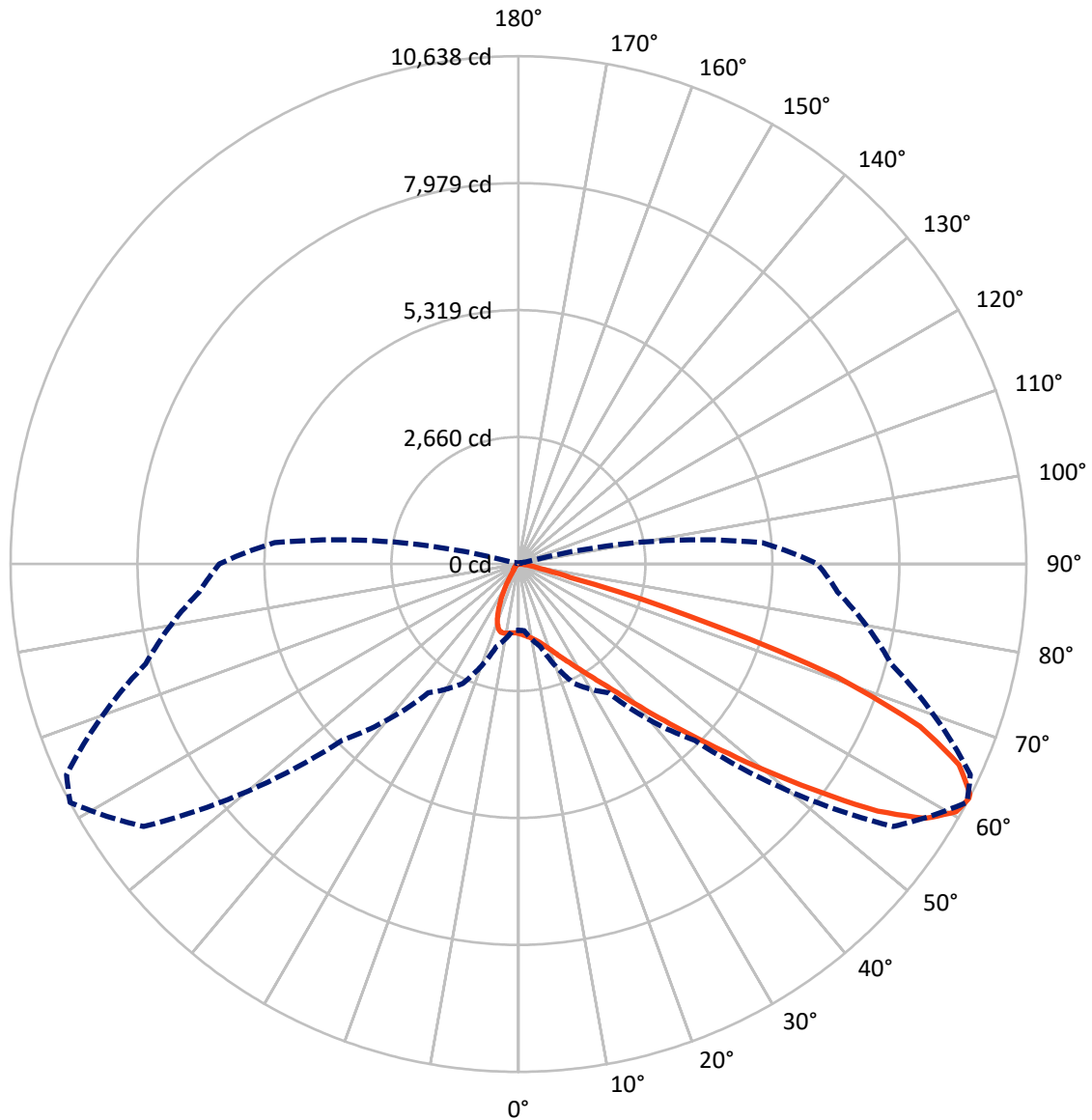


Based on 20 foot mounting height. Maximum calculated value = 7 fc
 Type II - Short - Full Cutoff

REPORT NUMBER: P257856

CATALOG NUMBER: ARCH-M-AF48-140-D-U-T2U-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P257856

CATALOG NUMBER: ARCH-M-AF48-140-D-U-T2U-HSS

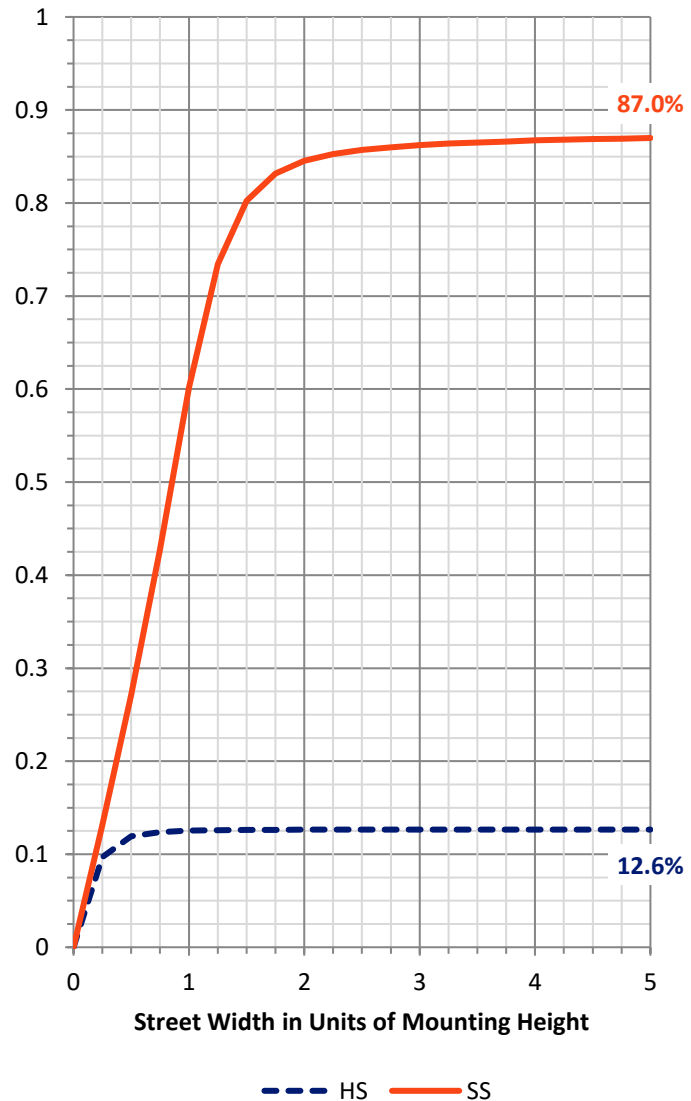
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1547.2	0.0	1547.2
	% Fixture	12.8	0.0	12.8
Street Side	Lumens	10553.3	0.0	10553.3
	% Fixture	87.2	0.0	87.2
Total	Lumens	12100.5	0.0	12100.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.3	1.2
10°-20°	391.7	3.2
20°-30°	657.9	5.4
30°-40°	1261.1	10.4
40°-50°	2575.9	21.3
50°-60°	3408.8	28.2
60°-70°	2648.1	21.9
70°-80°	955.8	7.9
80°-90°	60.9	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°	12100.5	100.0
0°-180°	12100.5	100.0

Coefficient of Utilization



REPORT NUMBER: P257856

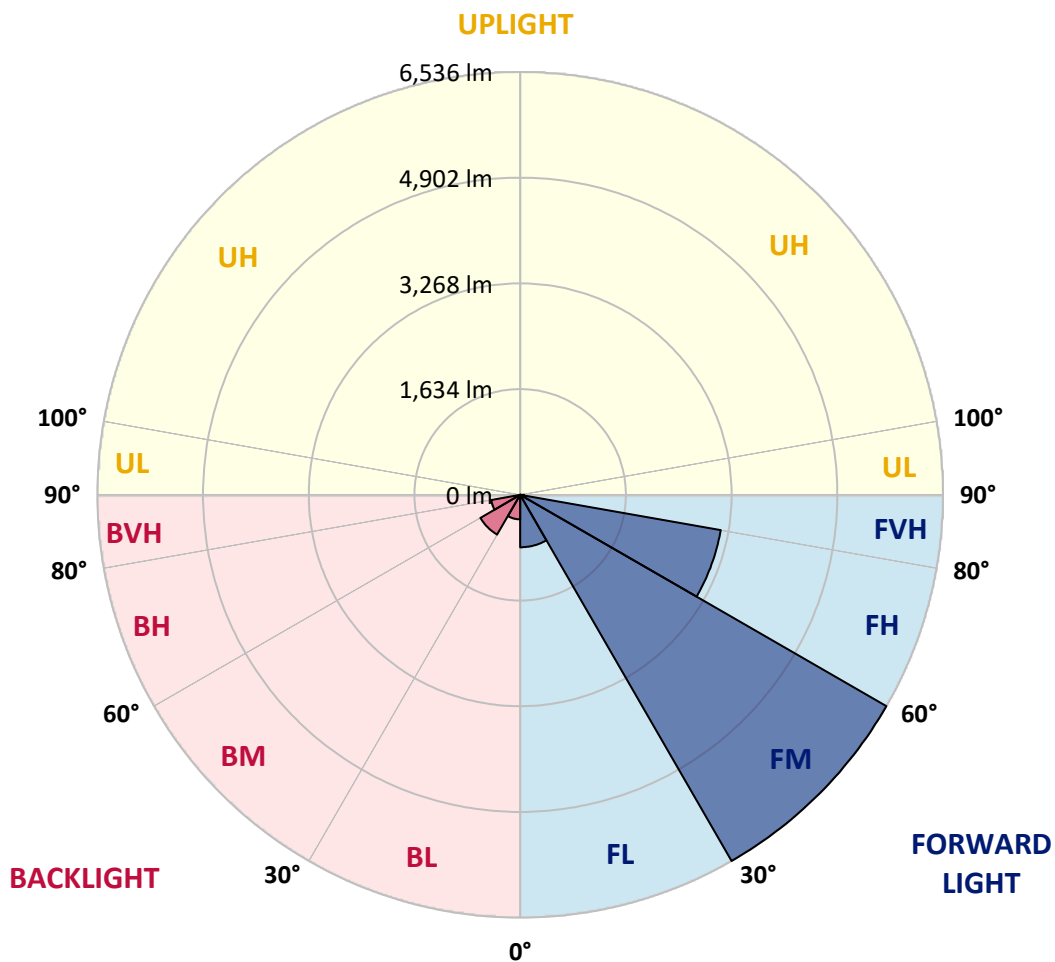
CATALOG NUMBER: ARCH-M-AF48-140-D-U-T2U-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	811.2	6.7			
FM	(30°-60°)	6535.5	54.0			
FH	(60°-80°)	3148.3	26.0			G2/5000
FVH	(80°-90°)	58.3	0.5			G1/100
BL	(0°-30°)	378.7	3.1	B1/500		
BM	(30°-60°)	710.3	5.9	B1/1000		
BH	(60°-80°)	455.6	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





REPORT NUMBER: P257856

CATALOG NUMBER: ARCH-M-AF48-140-D-U-T2U-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	62°	65°	75°	85°
0°	1457.7	1457.7	1457.7	1457.7	1457.7	1457.7	1457.7	1457.7	1457.7	1457.7	1457.7
2.5°	1496.4	1493.4	1490.3	1487.4	1487.4	1484.4	1481.4	1475.5	1469.6	1463.6	1460.7
5°	1523.1	1520.1	1517.1	1520.1	1517.1	1517.1	1514.2	1508.2	1502.3	1493.4	1484.4
7.5°	1543.9	1541.0	1538.0	1541.0	1543.9	1546.9	1549.9	1543.9	1541.0	1529.1	1520.1
10°	1570.7	1567.8	1564.7	1570.7	1570.7	1585.6	1588.5	1585.6	1582.6	1573.7	1558.8
12.5°	1609.4	1612.4	1612.4	1618.3	1624.2	1642.1	1648.1	1639.1	1639.1	1627.2	1609.4
15°	1680.8	1680.8	1680.8	1686.7	1689.7	1713.5	1719.5	1710.5	1716.5	1695.6	1677.8
17.5°	1749.1	1752.2	1758.1	1770.0	1770.0	1790.9	1802.7	1802.7	1814.6	1787.9	1764.1
20°	1817.6	1820.5	1829.5	1856.2	1856.2	1883.0	1903.9	1912.8	1924.7	1898.0	1856.2
22.5°	1891.9	1891.9	1906.9	1948.5	1939.6	1993.1	2031.8	2046.7	2058.6	2022.9	1957.4
25°	2005.0	1993.1	2005.0	2043.7	2037.7	2112.1	2183.5	2198.4	2213.3	2171.6	2073.4
27.5°	2219.2	2201.4	2159.8	2162.7	2162.7	2249.0	2350.1	2370.9	2379.9	2344.2	2222.2
30°	2647.6	2647.6	2492.9	2388.8	2320.4	2397.7	2540.5	2576.2	2588.1	2534.6	2373.9
32.5°	3394.3	3394.3	3108.6	2843.9	2585.1	2585.1	2748.8	2814.1	2826.1	2763.6	2576.2
35°	4346.2	4340.3	3911.9	3548.9	3043.3	2852.8	2992.6	3102.7	3138.4	3055.1	2838.0
37.5°	5357.6	5318.9	4857.9	4441.4	3748.3	3281.2	3322.9	3468.6	3501.4	3432.9	3177.1
40°	6178.7	6134.1	5762.2	5414.2	4658.5	3965.5	3798.8	3932.7	3971.4	3876.2	3581.7
42.5°	6922.4	6812.3	6556.5	6306.6	5705.7	5149.4	4432.4	4486.0	4527.7	4426.5	4036.9
45°	7460.9	7291.3	7160.3	7083.0	6764.8	6449.4	5253.6	5146.5	5161.3	5036.4	4533.6
47.5°	7475.7	7356.8	7368.6	7571.0	7701.8	7689.9	6321.5	5940.7	5884.2	5675.9	5063.1
50°	6761.8	6830.1	7047.3	7624.5	8332.4	8760.9	7591.7	6880.8	6711.2	6336.4	5589.7
52.5°	5571.8	5678.9	6086.5	7059.3	8424.7	9465.9	8909.6	7954.7	7651.3	6990.8	5994.3
55°	4364.0	4370.0	4798.4	5789.0	7808.9	9593.7	9962.6	9135.7	8671.6	7487.6	6262.0
57.5°	3001.5	3165.2	3709.6	4376.0	6419.6	8957.2	10358.3	10051.9	9454.0	7794.1	6449.4
60°	1966.3	1975.3	2608.9	3379.4	4370.0	7288.3	10117.4	10536.8	10087.6	7975.5	6577.4
62°	1386.3	1401.1	1793.8	2760.6	3293.1	5223.8	9584.8	10638.0	10444.6	8082.5	6711.2
62.5°	1285.1	1297.0	1627.2	2606.0	3093.8	4685.3	9394.5	10614.1	10498.1	8118.2	6758.7
65°	943.1	943.1	1065.0	1790.9	2266.9	2531.6	7960.6	10141.1	10426.7	8403.8	6937.2
67.5°	728.9	734.8	776.4	1103.7	1710.5	1535.0	5081.0	9076.1	9683.0	8826.3	7038.4
70°	627.7	624.7	654.5	731.8	1234.6	1020.4	2237.1	7083.0	8109.3	8719.2	6946.2
72.5°	464.1	467.1	535.5	642.5	859.7	663.4	1011.4	3760.2	5259.5	6824.2	5952.7
75°	297.5	300.4	377.8	505.7	618.8	434.3	583.1	1121.5	2153.7	3784.0	3641.2
77.5°	199.3	205.3	246.9	354.0	541.4	270.7	365.9	470.0	648.6	1419.0	1305.9
80°	133.9	133.9	157.6	237.9	342.1	226.1	196.3	312.3	336.1	440.3	220.1
82.5°	89.2	89.2	104.1	157.6	223.1	202.2	119.0	169.6	196.3	220.1	77.3
85°	53.5	53.5	71.4	98.2	145.8	113.0	77.3	95.2	101.2	139.8	41.6
87.5°	32.7	29.8	47.6	68.4	77.3	68.4	50.5	50.5	53.5	77.3	20.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P257856

CATALOG NUMBER: ARCH-M-AF48-140-D-U-T2U-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1457.7	1457.7	1457.7	1457.7	1457.7	1457.7	1457.7	1457.7	1457.7	1457.7	1457.7
2.5°	1454.6	1451.7	1448.7	1442.8	1433.9	1427.9	1422.0	1416.0	1410.0	1410.0	1419.0
5°	1481.4	1472.5	1460.7	1448.7	1430.9	1419.0	1410.0	1398.2	1392.2	1392.2	1395.2
7.5°	1514.2	1505.3	1484.4	1463.6	1436.8	1416.0	1395.2	1368.4	1347.6	1338.6	1347.6
10°	1549.9	1538.0	1508.2	1475.5	1445.7	1392.2	1323.8	1240.5	1169.1	1136.4	1151.2
12.5°	1594.5	1579.6	1543.9	1499.3	1430.9	1300.0	1130.5	937.0	815.1	758.6	770.5
15°	1659.9	1639.1	1588.5	1520.1	1368.4	1085.8	809.2	586.0	473.0	425.4	431.4
17.5°	1737.3	1710.5	1642.1	1514.2	1207.8	782.4	481.9	342.1	294.5	282.6	282.6
20°	1820.5	1784.8	1695.6	1469.6	963.8	490.8	300.4	261.8	244.0	235.0	235.0
22.5°	1906.9	1859.2	1740.2	1365.4	687.2	306.4	246.9	220.1	199.3	190.4	190.4
25°	2011.0	1948.5	1784.8	1184.0	437.3	246.9	211.2	184.4	163.6	151.7	154.7
27.5°	2133.0	2052.7	1823.6	957.9	282.6	214.2	175.5	148.7	130.9	124.9	124.9
30°	2260.8	2165.7	1832.5	716.9	229.0	184.4	145.8	121.9	110.1	104.1	104.1
32.5°	2436.4	2311.5	1805.7	476.0	193.3	154.7	121.9	101.2	92.3	89.2	89.2
35°	2668.4	2501.8	1743.2	294.5	163.6	127.9	101.2	89.2	80.3	77.3	77.3
37.5°	2962.9	2766.6	1633.1	202.2	139.8	104.1	86.2	77.3	71.4	68.4	68.4
40°	3355.6	3087.9	1490.3	175.5	119.0	89.2	74.4	68.4	62.5	62.5	62.5
42.5°	3772.0	3477.5	1305.9	154.7	101.2	77.3	65.5	59.5	56.6	53.5	53.5
45°	4227.2	3876.2	1076.9	136.9	86.2	68.4	59.5	50.5	47.6	47.6	47.6
47.5°	4679.4	4286.7	827.0	119.0	74.4	59.5	50.5	44.6	41.6	38.7	38.7
50°	5143.5	4658.5	606.8	104.1	65.5	53.5	44.6	38.7	32.7	29.8	29.8
52.5°	5479.6	4881.7	443.2	89.2	56.6	44.6	35.7	29.8	23.8	20.9	20.9
55°	5726.5	5018.5	324.3	74.4	50.5	38.7	29.8	23.8	17.8	17.8	14.8
57.5°	5919.9	5084.0	244.0	65.5	44.6	32.7	23.8	17.8	14.8	11.9	11.9
60°	6068.7	5086.9	181.5	53.5	38.7	26.8	17.8	11.9	8.9	8.9	8.9
62°	6265.0	5125.6	148.7	44.6	35.7	23.8	14.8	8.9	5.9	3.0	3.0
62.5°	6321.5	5140.5	142.8	44.6	32.7	20.9	11.9	8.9	5.9	3.0	3.0
65°	6583.3	5167.2	110.1	35.7	26.8	17.8	8.9	5.9	0.0	0.0	0.0
67.5°	6821.2	5125.6	80.3	26.8	20.9	11.9	8.9	3.0	0.0	0.0	0.0
70°	6797.5	4840.0	56.6	17.8	14.8	8.9	5.9	0.0	0.0	0.0	0.0
72.5°	5601.6	3623.3	38.7	14.8	8.9	5.9	3.0	0.0	0.0	0.0	0.0
75°	3382.4	1585.6	26.8	8.9	8.9	5.9	3.0	0.0	0.0	0.0	0.0
77.5°	1109.6	574.2	17.8	5.9	5.9	3.0	3.0	0.0	0.0	0.0	0.0
80°	181.5	95.2	8.9	5.9	5.9	3.0	3.0	0.0	0.0	0.0	0.0
82.5°	56.6	23.8	5.9	5.9	3.0	3.0	0.0	0.0	0.0	0.0	0.0
85°	20.9	8.9	5.9	5.9	3.0	3.0	0.0	0.0	0.0	0.0	0.0
87.5°	8.9	5.9	5.9	5.9	3.0	3.0	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)