

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: P231342

Luminaire Tested: **ARCH-M-AF48-110-D-U-T4W-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231342
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-110-D-U-T4W-7030-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 720mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9364 lumens
Efficiency: N/A
Efficacy: 84.4 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 111
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

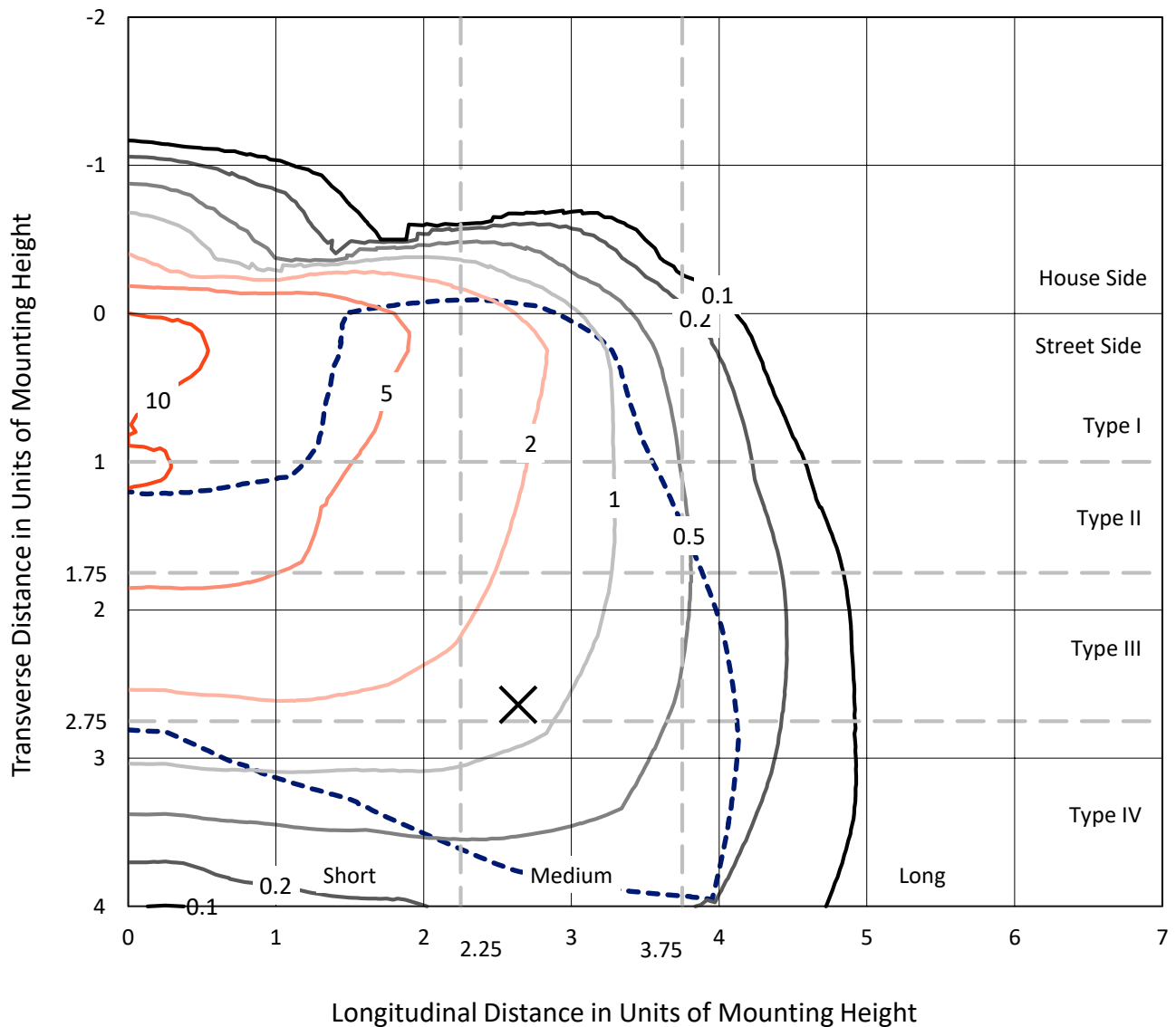


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

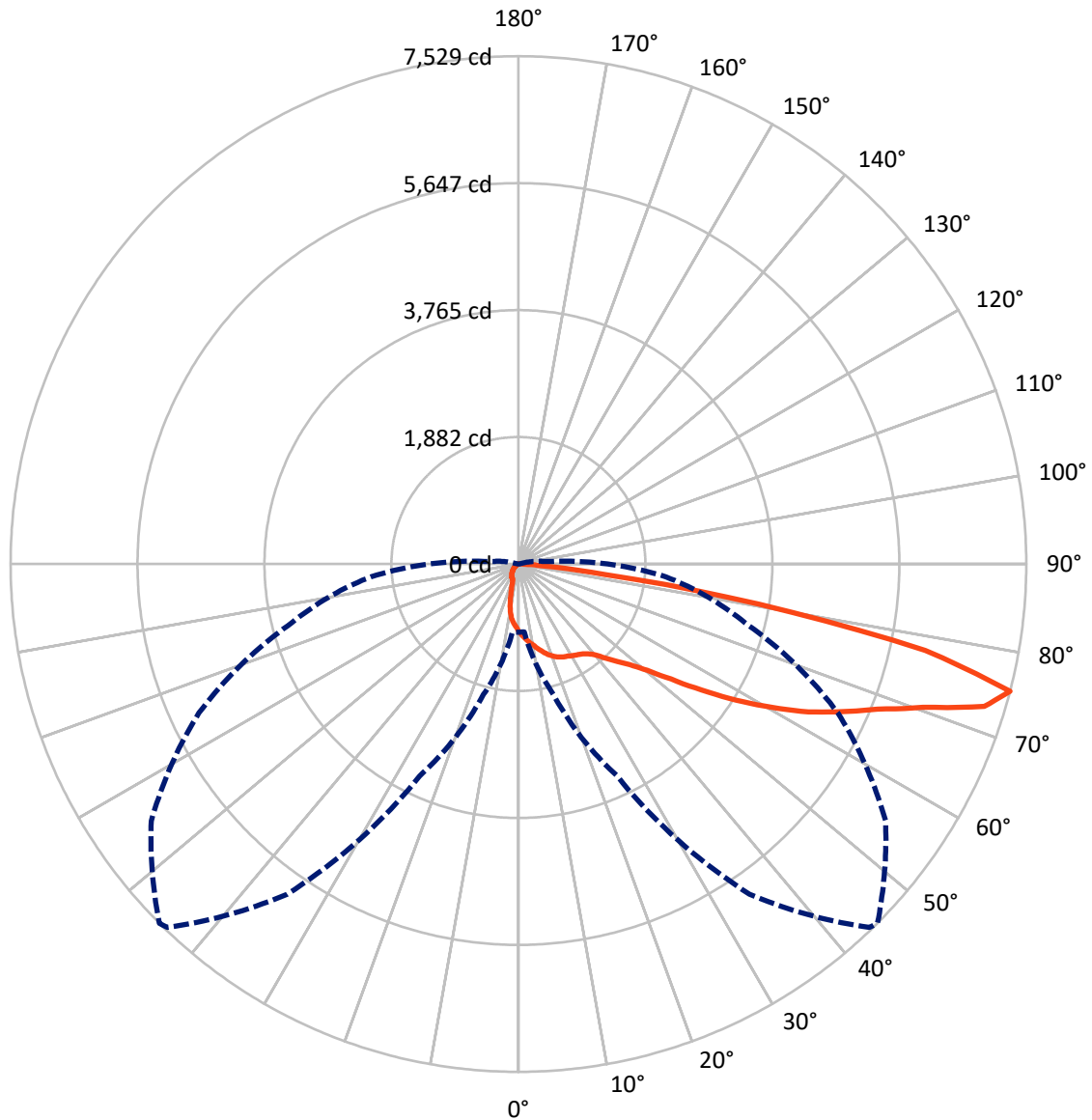


Based on 10 foot mounting height. Maximum calculated value = 13.4 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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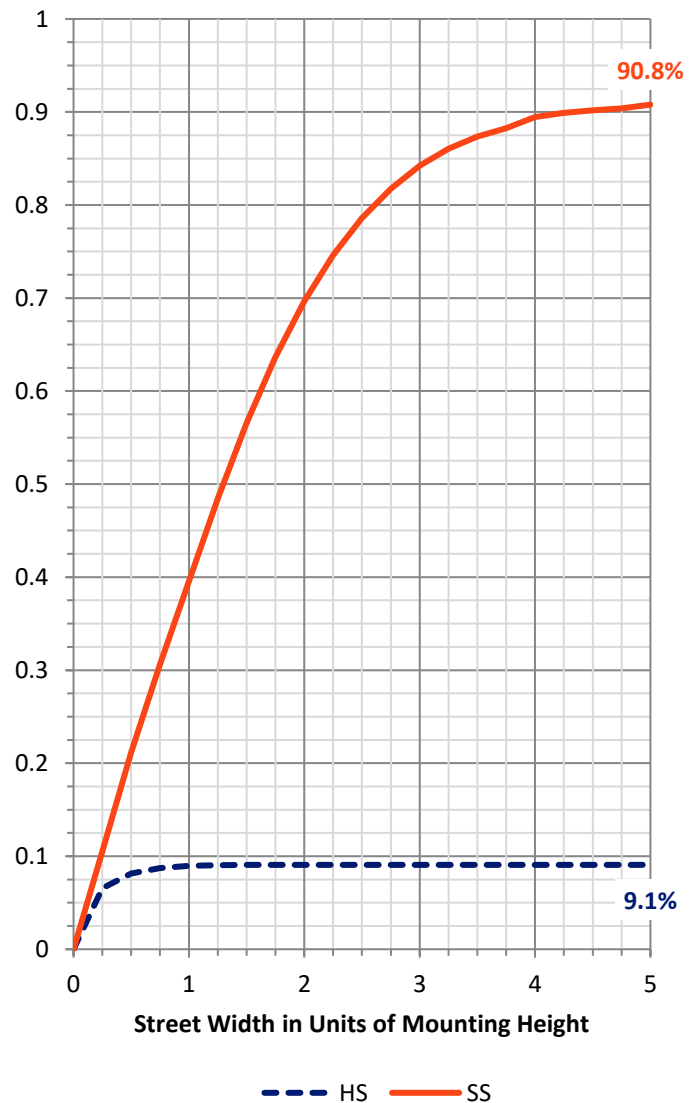
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	856.5	0.0	856.5
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	8507.5	0.0	8507.5
	% Fixture	90.9	0.0	90.9
Total	Lumens	9364.0	0.0	9364.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.5	1.0
10°-20°	267.8	2.9
20°-30°	443.5	4.7
30°-40°	641.8	6.9
40°-50°	1051.0	11.2
50°-60°	1872.6	20.0
60°-70°	2753.0	29.4
70°-80°	2076.9	22.2
80°-90°	162.9	1.7
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°	9364.0	100.0
0°-180°	9364.0	100.0



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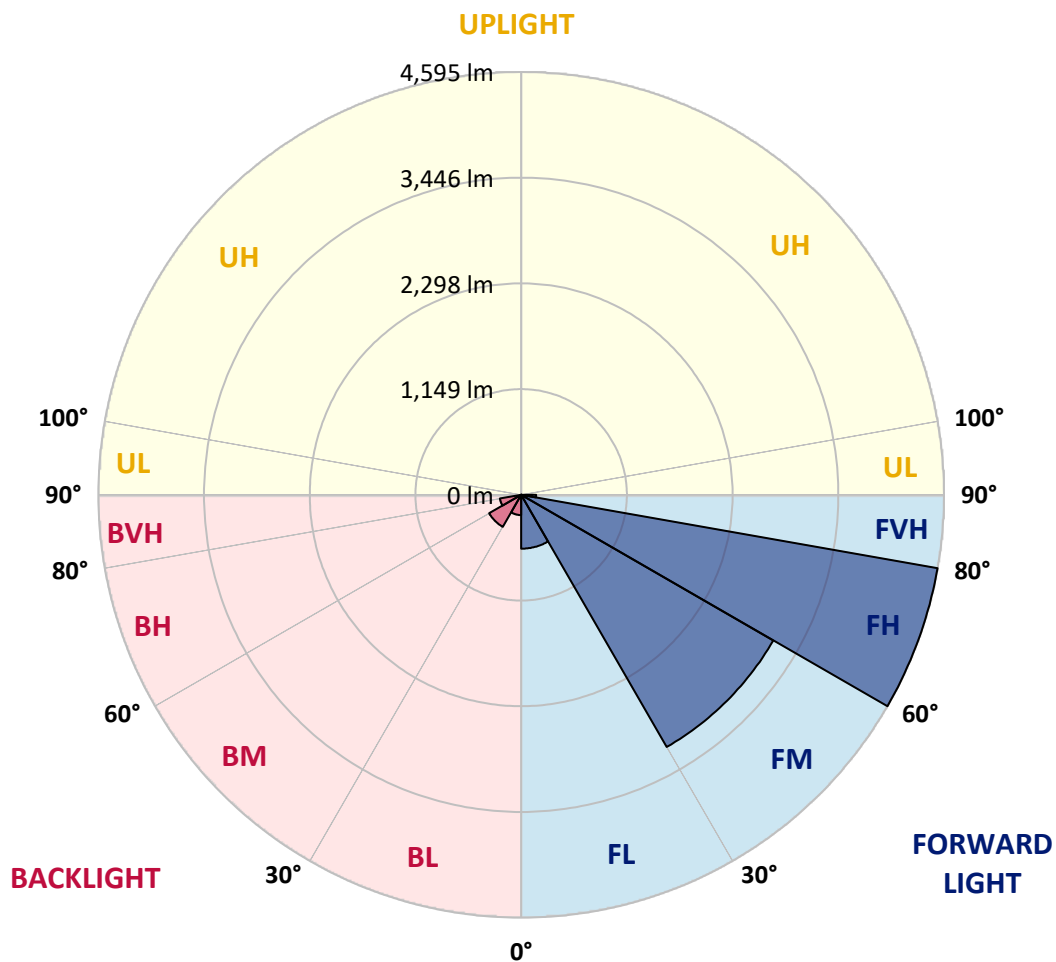
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	585.7	6.3			
FM	(30°-60°)	3164.0	33.8			
FH	(60°-80°)	4595.3	49.1			G2/5000
FVH	(80°-90°)	162.5	1.7			G2/225
BL	(0°-30°)	220.1	2.4	B1/500		
BM	(30°-60°)	401.4	4.3	B1/1000		
BH	(60°-80°)	234.6	2.5	B1/500		G1/500
BVH	(80°-90°)	0.5	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 IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	1001.5	1001.5	1001.5	1001.5	1001.5	1001.5	1001.5	1001.5	1001.5	1001.5	1001.5
2.5°	1087.9	1087.9	1085.7	1083.5	1072.4	1061.4	1059.1	1052.5	1032.6	1019.3	1006.0
5°	1178.8	1181.0	1176.6	1165.5	1141.1	1116.8	1114.5	1096.8	1059.1	1032.6	1003.7
7.5°	1265.2	1269.6	1258.6	1238.6	1209.8	1174.4	1172.1	1138.9	1090.2	1052.5	1010.4
10°	1338.3	1338.3	1322.8	1298.4	1267.4	1229.8	1225.3	1187.7	1132.3	1085.7	1030.3
12.5°	1418.1	1415.9	1393.7	1360.5	1325.0	1289.6	1287.4	1240.8	1187.7	1127.8	1059.1
15°	1491.2	1486.8	1458.0	1427.0	1389.3	1351.6	1349.4	1302.9	1247.5	1176.6	1101.2
17.5°	1531.1	1528.9	1502.3	1471.3	1440.3	1411.4	1409.2	1360.5	1300.7	1227.5	1143.3
20°	1537.7	1540.0	1517.8	1491.2	1473.5	1458.0	1458.0	1413.7	1349.4	1271.9	1187.7
22.5°	1540.0	1546.6	1531.1	1495.6	1491.2	1493.4	1497.9	1462.4	1395.9	1322.8	1234.2
25°	1555.5	1564.3	1553.3	1511.2	1506.7	1522.2	1526.7	1511.2	1451.3	1378.2	1287.4
27.5°	1586.5	1595.4	1586.5	1533.3	1526.7	1542.2	1546.6	1555.5	1511.2	1431.4	1342.8
30°	1648.5	1650.8	1630.8	1564.3	1551.0	1571.0	1577.6	1602.0	1566.6	1482.4	1395.9
32.5°	1757.1	1735.0	1675.1	1586.5	1575.4	1597.6	1604.2	1630.8	1617.5	1531.1	1451.3
35°	1978.7	1863.5	1726.1	1617.5	1606.4	1628.6	1637.5	1675.1	1681.8	1599.8	1520.0
37.5°	1976.5	1872.3	1845.7	1677.3	1661.8	1677.3	1688.4	1735.0	1761.5	1690.6	1619.7
40°	2116.1	2071.8	2071.8	1790.3	1739.4	1761.5	1772.6	1819.2	1865.7	1810.3	1737.2
42.5°	2554.8	2526.0	2495.0	2007.5	1848.0	1910.0	1916.6	1945.5	2000.8	1983.1	1896.7
45°	3044.5	3017.9	2898.2	2375.3	2034.1	2045.2	2060.7	2107.2	2187.0	2220.2	2118.3
47.5°	3427.8	3401.2	3299.3	2818.5	2324.3	2226.9	2226.9	2317.7	2441.8	2526.0	2428.5
50°	3735.8	3704.8	3642.7	3290.4	2800.7	2488.3	2475.0	2581.4	2765.3	2896.0	2829.5
52.5°	4034.9	3944.1	3906.4	3777.9	3339.2	2867.2	2831.8	2907.1	3161.9	3323.7	3268.3
55°	4234.3	4221.1	4181.2	4225.5	3904.2	3328.1	3297.1	3312.6	3631.7	3740.2	3671.5
57.5°	4420.5	4418.3	4506.9	4713.0	4520.2	3855.4	3806.7	3782.3	4085.9	4059.3	4119.1
60°	4650.9	4611.0	4817.1	5111.8	5085.2	4369.5	4314.1	4265.4	4433.8	4358.4	4655.3
62.5°	4662.0	4650.9	5069.7	5492.9	5645.8	4892.4	4828.2	4653.1	4737.3	4650.9	5167.2
65°	4238.8	4294.2	5176.1	5694.5	6115.5	5351.1	5273.5	5001.0	5007.7	4950.0	5769.9
67.5°	4143.5	4172.3	4883.6	5911.7	6454.6	5814.2	5741.1	5402.1	5322.3	5326.7	6126.6
70°	3906.4	3950.7	4520.2	5896.2	6722.7	6432.4	6359.3	5991.5	5798.7	5583.8	5851.9
72.5°	2984.6	3060.0	3808.9	5169.4	6649.5	7241.2	7221.2	6738.2	5989.2	5127.3	4427.1
75°	1010.4	1008.2	2000.8	3472.1	5973.7	7489.3	7529.2	6645.1	5224.8	3536.4	2198.0
77.5°	217.1	219.4	412.1	1407.0	3968.5	6013.6	6166.5	5012.1	3370.2	1575.4	503.0
80°	106.4	108.6	170.6	372.3	1586.5	3372.4	3611.7	2576.9	1245.3	314.6	84.2
82.5°	53.2	55.4	88.6	197.2	587.2	1198.7	1280.7	948.4	356.7	177.3	42.1
85°	19.9	19.9	44.3	117.4	268.1	281.4	345.7	274.8	214.9	144.0	11.1
87.5°	4.4	4.4	24.4	57.6	119.7	88.6	88.6	84.2	130.7	97.5	4.4
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°	1001.5	1001.5	1001.5	1001.5	1001.5	1001.5	1001.5	1001.5	1001.5	1001.5	1001.5
2.5°	999.3	990.5	974.9	959.4	948.4	935.1	928.4	921.8	919.5	917.3	921.8
5°	988.2	974.9	946.1	921.8	899.6	881.9	868.6	855.3	848.6	844.2	846.4
7.5°	988.2	968.3	926.2	888.5	853.1	815.4	777.7	748.9	726.8	713.5	715.7
10°	999.3	972.7	917.3	866.4	799.9	720.1	638.1	576.1	534.0	509.6	509.6
12.5°	1023.7	988.2	919.5	839.8	726.8	587.2	463.1	387.8	356.7	339.0	341.2
15°	1056.9	1014.8	930.6	804.3	624.8	436.5	323.5	274.8	274.8	279.2	281.4
17.5°	1094.6	1048.1	939.5	751.1	494.1	312.4	254.8	250.4	257.0	268.1	268.1
20°	1132.3	1081.3	943.9	666.9	370.0	248.2	241.5	241.5	246.0	257.0	259.2
22.5°	1178.8	1123.4	939.5	562.8	277.0	234.9	232.7	232.7	232.7	246.0	246.0
25°	1227.5	1172.1	921.8	452.0	234.9	226.0	223.8	221.6	221.6	232.7	234.9
27.5°	1282.9	1223.1	879.7	345.7	221.6	217.1	214.9	210.5	210.5	219.4	219.4
30°	1338.3	1280.7	815.4	261.5	210.5	208.3	203.9	199.4	195.0	203.9	203.9
32.5°	1398.2	1340.5	731.2	208.3	195.0	195.0	192.8	186.1	181.7	186.1	188.3
35°	1477.9	1409.2	635.9	181.7	175.0	175.0	175.0	172.8	164.0	168.4	168.4
37.5°	1584.3	1504.5	525.1	168.4	159.5	155.1	155.1	155.1	148.5	150.7	150.7
40°	1719.4	1615.3	418.8	157.3	148.5	137.4	132.9	135.2	130.7	130.7	128.5
42.5°	1903.4	1735.0	314.6	148.5	139.6	124.1	115.2	113.0	108.6	106.4	106.4
45°	2167.0	1881.2	226.0	139.6	132.9	108.6	99.7	93.1	82.0	75.3	75.3
47.5°	2508.3	2047.4	168.4	130.7	126.3	95.3	84.2	70.9	55.4	51.0	51.0
50°	2924.8	2233.5	141.8	117.4	115.2	84.2	66.5	46.5	31.0	26.6	28.8
52.5°	3330.3	2408.5	126.3	104.1	101.9	73.1	48.7	24.4	13.3	13.3	13.3
55°	3671.5	2532.6	115.2	93.1	88.6	57.6	26.6	11.1	6.6	6.6	6.6
57.5°	3979.5	2603.5	104.1	82.0	70.9	39.9	11.1	4.4	4.4	2.2	2.2
60°	4260.9	2645.6	90.8	70.9	55.4	22.2	4.4	2.2	2.2	0.0	0.0
62.5°	4537.9	2676.7	77.6	57.6	42.1	8.9	2.2	2.2	0.0	0.0	0.0
65°	4748.4	2665.6	62.0	46.5	26.6	4.4	2.2	0.0	0.0	0.0	0.0
67.5°	4741.8	2514.9	46.5	35.5	13.3	2.2	0.0	0.0	0.0	0.0	0.0
70°	4241.0	2118.3	31.0	22.2	4.4	2.2	0.0	0.0	0.0	0.0	0.0
72.5°	3009.0	1358.3	19.9	13.3	2.2	0.0	0.0	0.0	0.0	0.0	0.0
75°	1325.0	412.1	11.1	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	259.2	95.3	6.6	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	62.0	11.1	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	26.6	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	6.6	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.4	2.2	0.0	0.0	0.0	0.0	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)