

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: P258183

Luminaire Tested: **ARCH-M-AF48-100-D-U-T2U-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P258183
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-AF48-100-D-U-T2U-7030-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 660mA 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: 8965.8 lumens
Efficiency: N/A
Efficacy: 88.8 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): 101
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

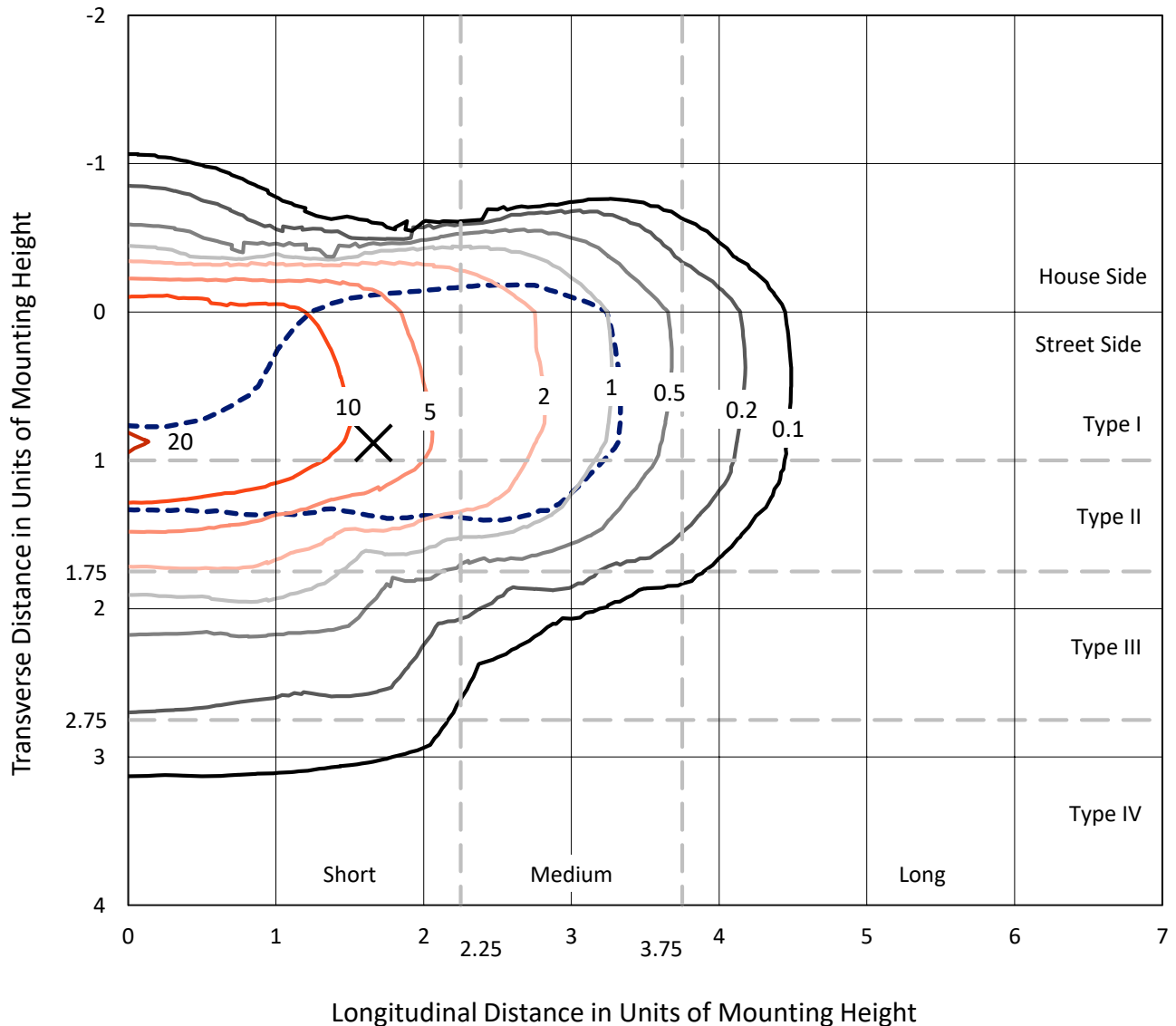


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

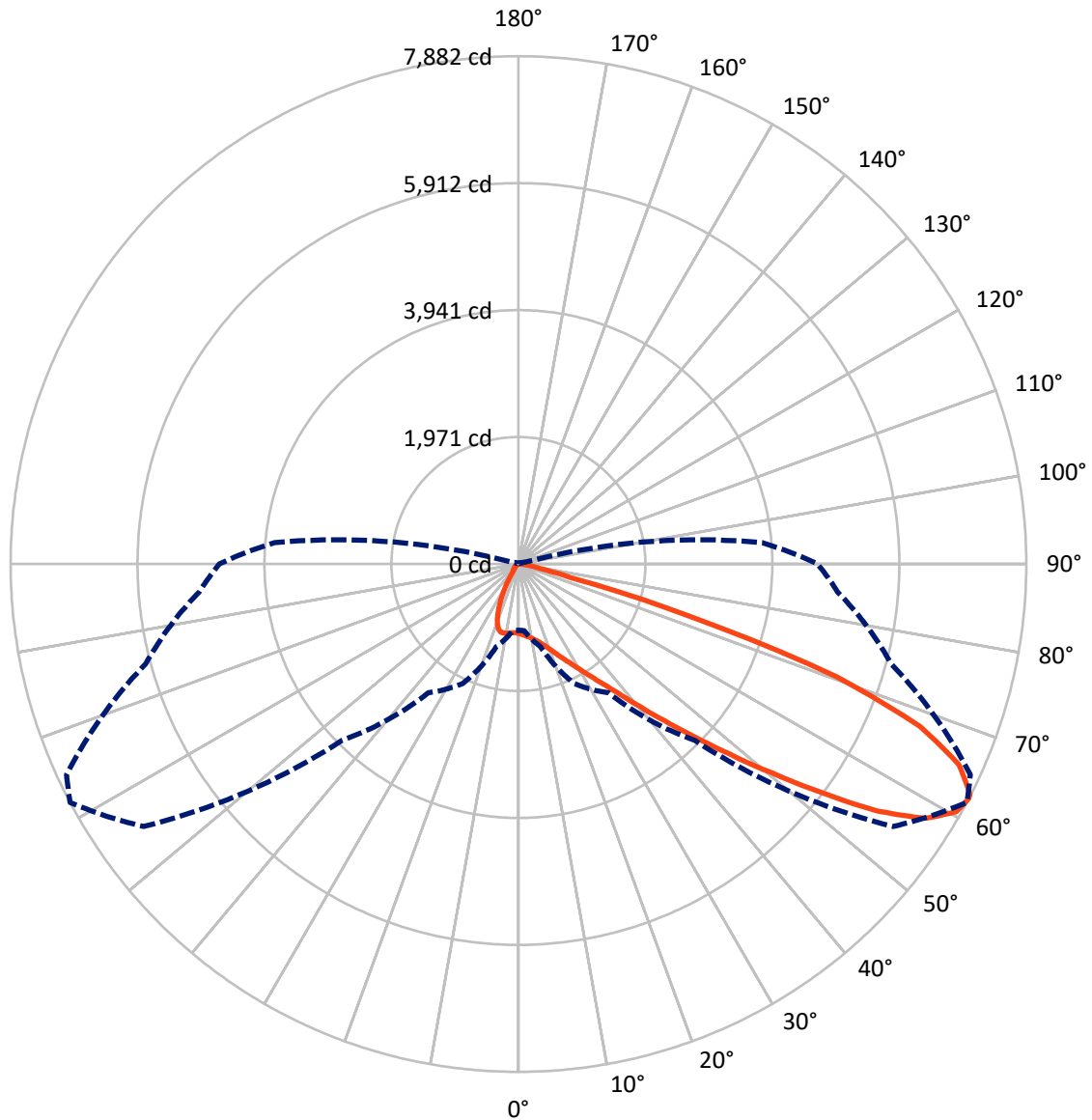


Based on 10 foot mounting height. Maximum calculated value = 20.6 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



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

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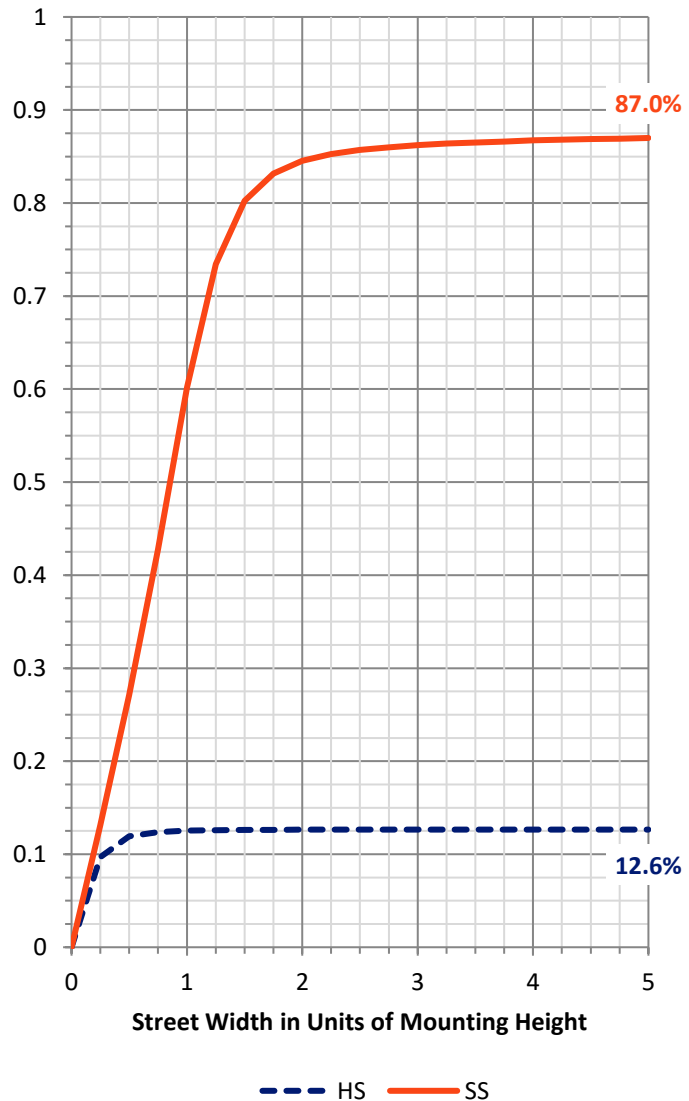
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1146.4	0.0	1146.4
	% Fixture	12.8	0.0	12.8
Street Side	Lumens	7819.4	0.0	7819.4
	% Fixture	87.2	0.0	87.2
Total	Lumens	8965.8	0.0	8965.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.9	1.2
10°-20°	290.3	3.2
20°-30°	487.5	5.4
30°-40°	934.4	10.4
40°-50°	1908.6	21.3
50°-60°	2525.7	28.2
60°-70°	1962.1	21.9
70°-80°	708.2	7.9
80°-90°	45.1	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°	8965.8	100.0
0°-180°	8965.8	100.0

Coefficient of Utilization



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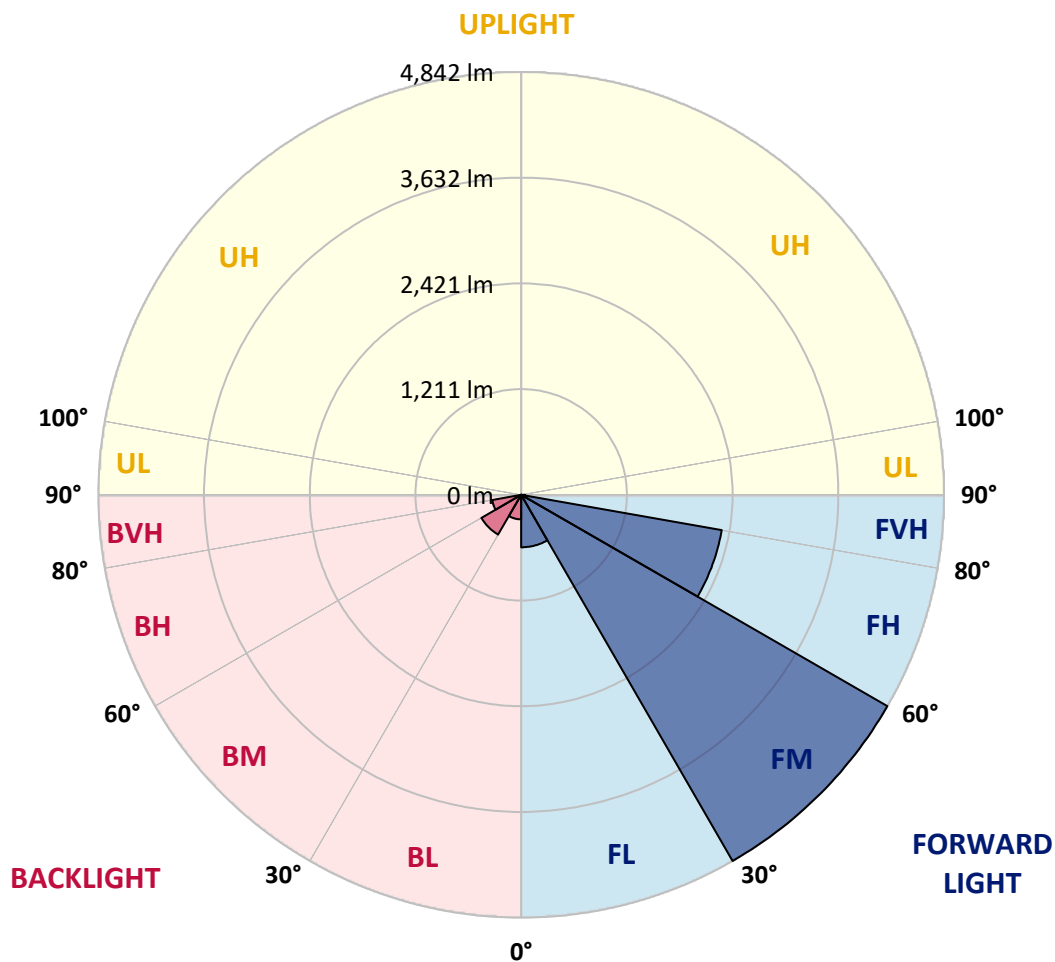
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	601.1	6.7			
FM	(30°-60°)	4842.5	54.0			
FH	(60°-80°)	2332.7	26.0			G2/5000
FVH	(80°-90°)	43.2	0.5			G1/100
BL	(0°-30°)	280.6	3.1	B1/500		
BM	(30°-60°)	526.3	5.9	B1/1000		
BH	(60°-80°)	337.6	3.8	B1/500		G1/500
BVH	(80°-90°)	2.0	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°	1080.0	1080.0	1080.0	1080.0	1080.0	1080.0	1080.0	1080.0	1080.0	1080.0	1080.0
2.5°	1108.7	1106.5	1104.3	1102.1	1102.1	1099.9	1097.7	1093.2	1088.9	1084.5	1082.2
5°	1128.5	1126.4	1124.2	1126.4	1124.2	1124.2	1122.0	1117.5	1113.2	1106.5	1099.9
7.5°	1144.0	1141.8	1139.6	1141.8	1144.0	1146.1	1148.5	1144.0	1141.8	1132.9	1126.4
10°	1163.8	1161.7	1159.4	1163.8	1163.8	1174.9	1177.0	1174.9	1172.6	1166.1	1155.0
12.5°	1192.4	1194.6	1194.6	1199.1	1203.5	1216.7	1221.1	1214.5	1214.5	1205.6	1192.4
15°	1245.3	1245.3	1245.3	1249.8	1252.0	1269.6	1274.0	1267.4	1271.8	1256.4	1243.2
17.5°	1296.1	1298.2	1302.7	1311.4	1311.4	1327.0	1335.7	1335.7	1344.6	1324.7	1307.1
20°	1346.7	1349.0	1355.6	1375.3	1375.3	1395.2	1410.6	1417.3	1426.1	1406.2	1375.3
22.5°	1401.9	1401.9	1412.8	1443.8	1437.1	1476.7	1505.5	1516.5	1525.3	1498.8	1450.3
25°	1485.6	1476.7	1485.6	1514.3	1509.9	1564.9	1617.9	1628.8	1639.9	1609.1	1536.3
27.5°	1644.4	1631.1	1600.2	1602.4	1602.4	1666.3	1741.3	1756.8	1763.3	1736.9	1646.5
30°	1961.7	1961.7	1847.1	1770.0	1719.3	1776.5	1882.3	1908.9	1917.6	1877.9	1759.0
32.5°	2514.9	2514.9	2303.4	2107.2	1915.5	1915.5	2036.7	2085.1	2094.0	2047.7	1908.9
35°	3220.3	3215.9	2898.5	2629.6	2254.9	2113.8	2217.4	2299.0	2325.4	2263.8	2102.8
37.5°	3969.7	3941.1	3599.4	3290.9	2777.3	2431.2	2462.0	2570.1	2594.4	2543.7	2354.1
40°	4578.1	4545.0	4269.6	4011.6	3451.7	2938.2	2814.7	2914.0	2942.6	2872.1	2653.8
42.5°	5129.1	5047.6	4858.0	4672.9	4227.6	3815.5	3284.3	3323.8	3354.8	3279.9	2991.1
45°	5528.1	5402.5	5305.5	5248.2	5012.3	4778.7	3892.6	3813.2	3824.3	3731.6	3359.1
47.5°	5539.1	5451.0	5459.8	5609.7	5706.6	5697.8	4683.8	4401.7	4359.9	4205.6	3751.5
50°	5010.1	5060.8	5221.7	5649.4	6173.9	6491.3	5625.1	5098.2	4972.6	4694.9	4141.7
52.5°	4128.5	4207.8	4509.7	5230.6	6242.2	7013.7	6601.6	5894.0	5669.1	5179.9	4441.4
55°	3233.5	3237.9	3555.3	4289.3	5786.0	7108.5	7381.8	6769.0	6425.2	5547.9	4639.8
57.5°	2224.0	2345.2	2748.6	3242.4	4756.6	6636.9	7674.9	7447.9	7004.9	5775.0	4778.7
60°	1457.0	1463.5	1933.1	2504.0	3237.9	5400.2	7496.4	7807.2	7474.4	5909.4	4873.4
62°	1027.1	1038.2	1329.1	2045.5	2440.0	3870.5	7101.9	7882.2	7738.9	5988.7	4972.6
62.5°	952.2	961.1	1205.6	1930.8	2292.4	3471.6	6960.8	7864.5	7778.6	6015.2	5007.9
65°	698.7	698.7	789.1	1327.0	1679.6	1875.8	5898.4	7514.1	7725.6	6226.8	5140.1
67.5°	540.1	544.4	575.2	817.8	1267.4	1137.4	3764.7	6724.9	7174.6	6539.8	5215.1
70°	465.1	462.9	484.9	542.3	914.7	756.1	1657.6	5248.2	6008.6	6460.5	5146.7
72.5°	343.8	346.1	396.7	476.2	637.0	491.5	749.4	2786.1	3897.0	5056.4	4410.6
75°	220.3	222.7	279.9	374.8	458.5	321.8	432.0	831.0	1595.8	2803.7	2697.9
77.5°	147.7	152.1	182.9	262.3	401.2	200.6	271.1	348.2	480.5	1051.4	967.6
80°	99.2	99.2	116.8	176.4	253.5	167.5	145.5	231.4	249.1	326.2	163.2
82.5°	66.1	66.1	77.1	116.8	165.3	149.9	88.2	125.6	145.5	163.2	57.4
85°	39.7	39.7	52.9	72.7	108.0	83.8	57.4	70.6	75.0	103.6	30.8
87.5°	24.2	22.1	35.3	50.7	57.4	50.7	37.4	37.4	39.7	57.4	15.4
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°	1080.0	1080.0	1080.0	1080.0	1080.0	1080.0	1080.0	1080.0	1080.0	1080.0	1080.0
2.5°	1077.9	1075.6	1073.5	1069.0	1062.4	1057.9	1053.6	1049.2	1044.7	1044.7	1051.4
5°	1097.7	1091.1	1082.2	1073.5	1060.3	1051.4	1044.7	1036.0	1031.5	1031.5	1033.8
7.5°	1122.0	1115.3	1099.9	1084.5	1064.6	1049.2	1033.8	1013.9	998.5	991.8	998.5
10°	1148.5	1139.6	1117.5	1093.2	1071.3	1031.5	980.8	919.2	866.2	842.0	853.0
12.5°	1181.4	1170.3	1144.0	1110.9	1060.3	963.2	837.6	694.4	603.9	562.0	570.9
15°	1229.9	1214.5	1177.0	1126.4	1013.9	804.4	599.5	434.2	350.5	315.2	319.6
17.5°	1287.3	1267.4	1216.7	1122.0	895.0	579.7	357.1	253.5	218.2	209.4	209.4
20°	1349.0	1322.5	1256.4	1088.9	714.1	363.8	222.7	193.9	180.8	174.2	174.2
22.5°	1412.8	1377.6	1289.5	1011.7	509.1	227.0	182.9	163.2	147.7	141.1	141.1
25°	1490.1	1443.8	1322.5	877.3	324.1	182.9	156.5	136.7	121.3	112.4	114.6
27.5°	1580.4	1520.9	1351.2	709.7	209.4	158.8	130.0	110.3	97.0	92.6	92.6
30°	1675.2	1604.7	1357.8	531.2	169.7	136.7	108.0	90.3	81.5	77.1	77.1
32.5°	1805.2	1712.6	1338.0	352.7	143.2	114.6	90.3	75.0	68.3	66.1	66.1
35°	1977.1	1853.7	1291.7	218.2	121.3	94.7	75.0	66.1	59.5	57.4	57.4
37.5°	2195.3	2049.9	1210.0	149.9	103.6	77.1	63.9	57.4	52.9	50.7	50.7
40°	2486.3	2287.9	1104.3	130.0	88.2	66.1	55.0	50.7	46.3	46.3	46.3
42.5°	2794.9	2576.7	967.6	114.6	75.0	57.4	48.5	44.0	41.8	39.7	39.7
45°	3132.1	2872.1	797.9	101.4	63.9	50.7	44.0	37.4	35.3	35.3	35.3
47.5°	3467.2	3176.2	612.7	88.2	55.0	44.0	37.4	33.1	30.8	28.6	28.6
50°	3811.1	3451.7	449.6	77.1	48.5	39.7	33.1	28.6	24.2	22.1	22.1
52.5°	4060.1	3617.0	328.5	66.1	41.8	33.1	26.4	22.1	17.6	15.4	15.4
55°	4243.1	3718.4	240.3	55.0	37.4	28.6	22.1	17.6	13.2	13.2	11.0
57.5°	4386.3	3766.9	180.8	48.5	33.1	24.2	17.6	13.2	11.0	8.8	8.8
60°	4496.6	3769.1	134.5	39.7	28.6	19.8	13.2	8.8	6.7	6.7	6.7
62°	4642.0	3797.9	110.3	33.1	26.4	17.6	11.0	6.7	4.4	2.1	2.1
62.5°	4683.8	3808.8	105.8	33.1	24.2	15.4	8.8	6.7	4.4	2.1	2.1
65°	4877.9	3828.7	81.5	26.4	19.8	13.2	6.7	4.4	0.0	0.0	0.0
67.5°	5054.3	3797.9	59.5	19.8	15.4	8.8	6.7	2.1	0.0	0.0	0.0
70°	5036.6	3586.2	41.8	13.2	11.0	6.7	4.4	0.0	0.0	0.0	0.0
72.5°	4150.4	2684.7	28.6	11.0	6.7	4.4	2.1	0.0	0.0	0.0	0.0
75°	2506.2	1174.9	19.8	6.7	6.7	4.4	2.1	0.0	0.0	0.0	0.0
77.5°	822.1	425.4	13.2	4.4	4.4	2.1	2.1	0.0	0.0	0.0	0.0
80°	134.5	70.6	6.7	4.4	4.4	2.1	2.1	0.0	0.0	0.0	0.0
82.5°	41.8	17.6	4.4	4.4	2.1	2.1	0.0	0.0	0.0	0.0	0.0
85°	15.4	6.7	4.4	4.4	2.1	2.1	0.0	0.0	0.0	0.0	0.0
87.5°	6.7	4.4	4.4	4.4	2.1	2.1	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)