

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: P231223

Luminaire Tested: **ARCH-M-AF48-90-D-U-T3-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231223
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29624)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-90-D-U-T3-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 600mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9462.3 lumens
Efficiency: N/A
Efficacy: 102.9 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G2

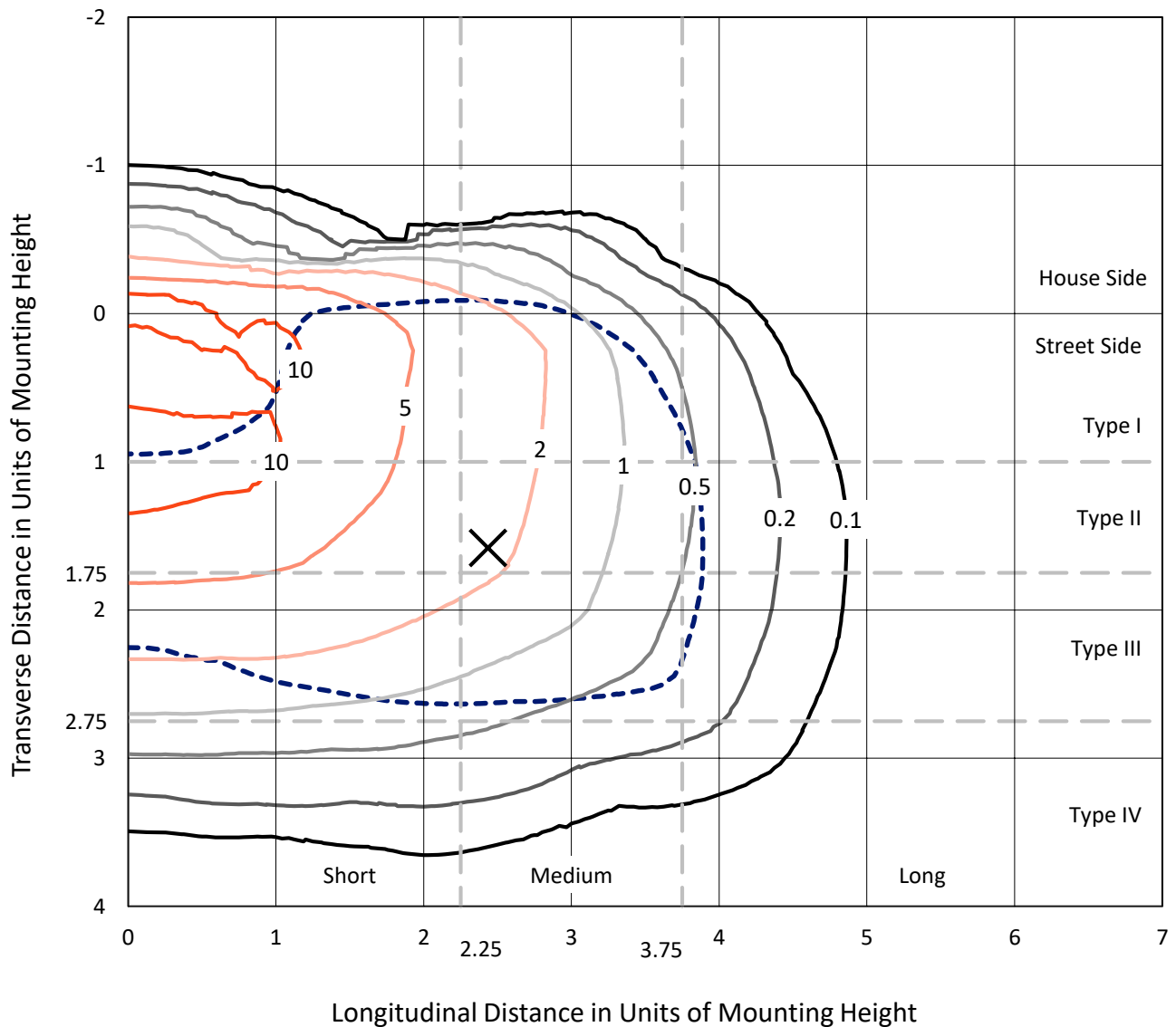
Input Watts (W): 92
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

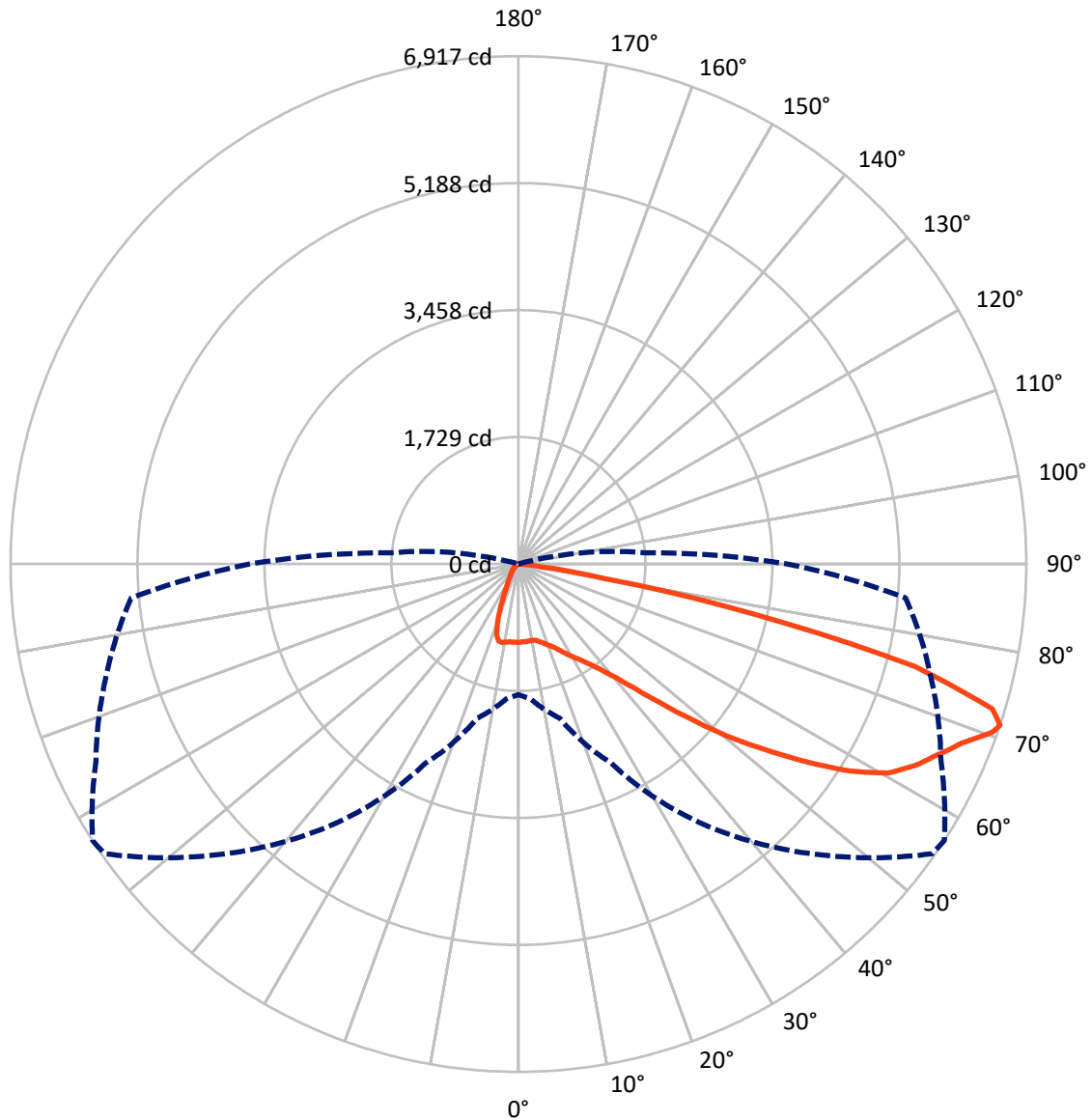


Based on 10 foot mounting height. Maximum calculated value = 13.3 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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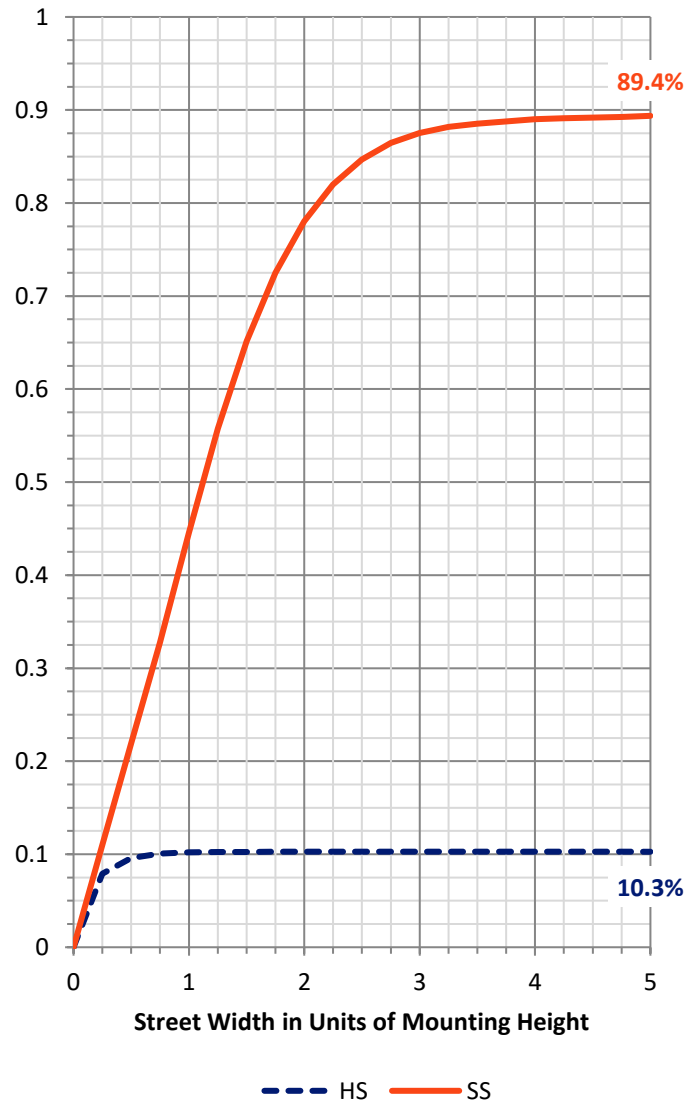
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	980.6	0.0	980.6
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	8481.7	0.0	8481.7
	% Fixture	89.6	0.0	89.6
Total	Lumens	9462.3	0.0	9462.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.4	1.1
10°-20°	268.5	2.8
20°-30°	418.9	4.4
30°-40°	708.0	7.5
40°-50°	1375.1	14.5
50°-60°	2309.3	24.4
60°-70°	2755.9	29.1
70°-80°	1452.4	15.3
80°-90°	73.8	0.8
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°	9462.3	100.0
0°-180°	9462.3	100.0

Coefficient of Utilization



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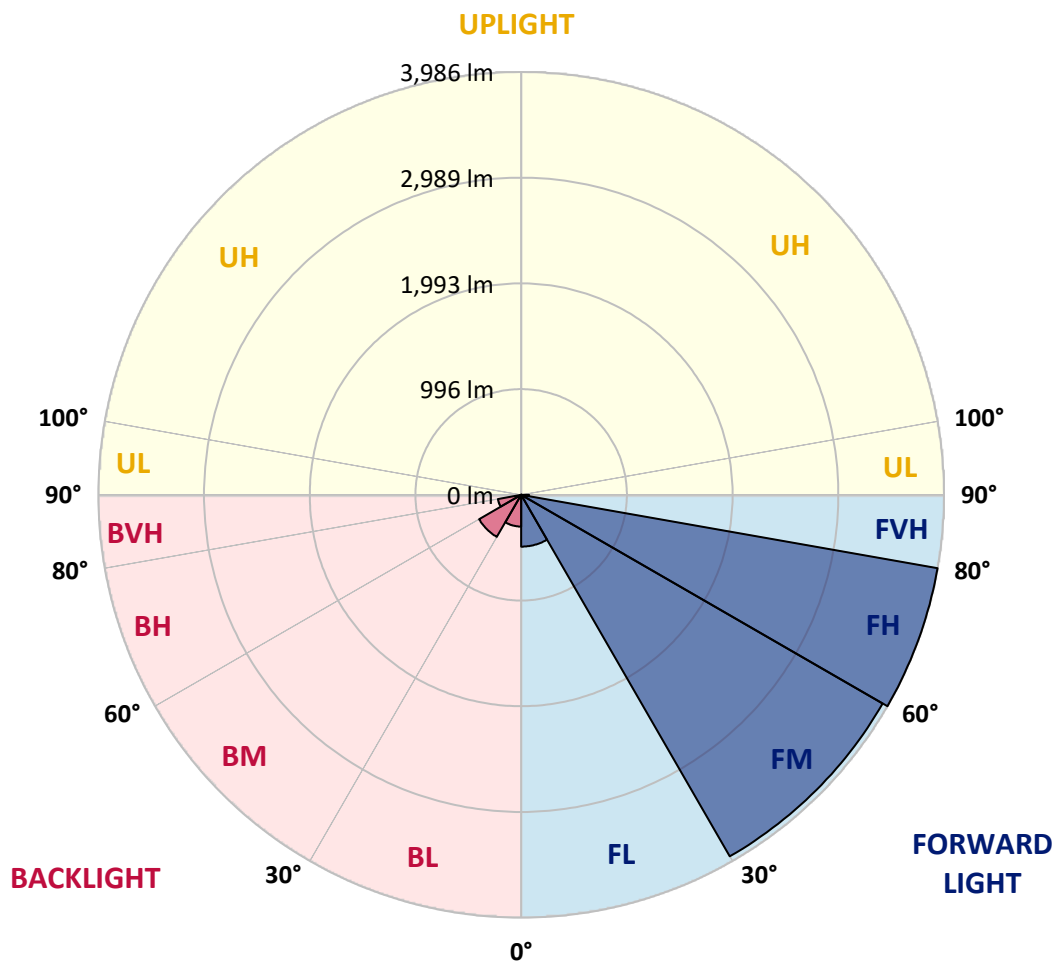
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	488.5	5.2			
FM	(30°-60°)	3934.5	41.6			
FH	(60°-80°)	3985.6	42.1			G2/5000
FVH	(80°-90°)	73.1	0.8			G1/100
BL	(0°-30°)	299.3	3.2	B1/500		
BM	(30°-60°)	457.9	4.8	B1/1000		
BH	(60°-80°)	222.7	2.4	B1/500		G1/500
BVH	(80°-90°)	0.7	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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	1069.4	1069.4	1069.4	1069.4	1069.4	1069.4	1069.4	1069.4	1069.4	1069.4	1069.4
2.5°	1053.9	1053.9	1053.9	1056.2	1058.3	1058.3	1062.7	1060.6	1060.6	1060.6	1065.0
5°	1025.3	1027.5	1029.7	1034.1	1042.9	1049.5	1060.6	1060.6	1062.7	1067.1	1069.4
7.5°	985.6	987.8	994.4	1003.2	1020.9	1036.4	1053.9	1058.3	1065.0	1076.0	1080.4
10°	961.4	965.8	974.6	985.6	1005.5	1025.3	1047.3	1053.9	1073.8	1093.6	1104.7
12.5°	954.7	957.0	965.8	983.4	1007.6	1031.9	1060.6	1067.1	1095.9	1126.7	1144.4
15°	965.8	967.9	972.4	992.2	1020.9	1051.7	1089.2	1098.0	1133.3	1168.6	1190.6
17.5°	985.6	985.6	990.0	1007.6	1038.5	1073.8	1122.3	1135.6	1175.3	1214.9	1239.2
20°	998.8	998.8	1005.5	1023.1	1058.3	1104.7	1162.0	1179.7	1223.8	1267.8	1289.8
22.5°	1012.0	1014.3	1020.9	1040.8	1080.4	1144.4	1210.5	1228.2	1278.9	1325.1	1347.2
25°	1049.5	1047.3	1049.5	1067.1	1113.5	1192.9	1276.6	1298.7	1351.6	1402.4	1413.3
27.5°	1153.2	1148.8	1120.1	1109.1	1144.4	1243.6	1360.4	1382.5	1444.2	1494.9	1494.9
30°	1391.3	1382.5	1311.9	1221.5	1192.9	1289.8	1439.8	1470.7	1550.1	1594.2	1581.0
32.5°	1693.4	1673.5	1583.1	1428.8	1314.1	1351.6	1523.6	1558.9	1660.2	1697.8	1669.1
35°	2024.1	2021.9	1909.4	1711.0	1547.8	1479.5	1631.6	1673.5	1801.4	1834.5	1788.2
37.5°	2374.7	2383.5	2308.5	2035.2	1843.4	1689.0	1774.9	1823.5	1980.0	2019.7	1975.6
40°	2764.9	2762.8	2734.1	2410.0	2198.3	1986.7	1982.2	2026.4	2215.9	2277.7	2215.9
42.5°	3258.8	3254.4	3150.8	2859.8	2628.3	2374.7	2284.2	2299.7	2511.4	2612.8	2522.4
45°	3761.6	3730.7	3611.6	3360.3	3155.2	2855.4	2683.4	2683.4	2864.2	3003.1	2862.0
47.5°	4041.6	4010.8	3962.2	3823.3	3761.6	3426.5	3172.9	3142.0	3283.2	3424.2	3225.8
50°	4409.8	4409.8	4288.5	4235.6	4341.5	4105.5	3713.1	3682.2	3750.5	3863.0	3602.8
52.5°	4700.9	4648.0	4562.0	4608.3	4910.4	4802.3	4253.3	4193.8	4246.7	4275.3	3931.4
55°	4822.2	4771.5	4764.8	4934.6	5402.0	5252.1	4806.7	4753.8	4749.4	4608.3	4218.0
57.5°	4846.4	4802.3	4886.1	5183.7	5880.5	5620.3	5357.9	5318.2	5194.7	4842.0	4511.2
60°	4641.3	4663.4	4866.3	5320.5	6162.8	5940.1	5823.1	5781.3	5496.8	5040.4	4837.5
62.5°	4220.2	4273.2	4652.4	5333.7	6059.1	6070.1	6081.1	6052.5	5730.6	5221.2	5166.1
65°	3721.9	3737.4	4193.8	5150.7	5878.3	6030.4	6270.8	6268.5	5909.2	5424.1	5536.5
67.5°	3067.0	3093.5	3488.2	4533.3	5516.7	6012.8	6519.9	6513.3	6112.0	5655.6	5757.1
70°	2282.1	2315.1	2634.9	3525.7	4709.7	5792.4	6846.3	6850.7	6325.9	5831.9	5604.8
71°	1779.3	1838.9	2174.1	2994.3	4297.4	5569.7	6877.1	6916.8	6350.2	5807.7	5291.8
72.5°	873.2	943.7	1364.8	2107.9	3536.6	5071.3	6674.2	6751.5	6198.1	5505.6	4524.5
75°	227.1	240.3	408.0	862.1	1896.2	3360.3	5382.2	5578.5	5066.9	4191.5	2764.9
77.5°	143.3	147.7	191.8	335.1	710.0	1276.6	3161.8	3258.8	2895.1	2123.3	974.6
80°	101.5	103.6	121.2	216.0	414.5	372.7	1137.7	1179.7	1047.3	562.2	174.2
82.5°	61.8	61.8	88.2	138.9	255.7	202.9	299.8	319.7	282.2	156.5	57.3
85°	35.3	37.4	55.1	94.8	121.2	99.2	112.4	119.1	121.2	103.6	24.2
87.5°	28.6	30.9	48.5	79.4	66.2	48.5	48.5	50.7	52.9	61.8	11.0
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°	1069.4	1069.4	1069.4	1069.4	1069.4	1069.4	1069.4	1069.4	1069.4	1069.4	1069.4
2.5°	1065.0	1065.0	1067.1	1065.0	1065.0	1065.0	1067.1	1067.1	1067.1	1071.5	1073.8
5°	1069.4	1069.4	1069.4	1067.1	1065.0	1065.0	1069.4	1071.5	1071.5	1078.2	1078.2
7.5°	1080.4	1080.4	1076.0	1071.5	1067.1	1060.6	1062.7	1065.0	1062.7	1065.0	1065.0
10°	1104.7	1104.7	1098.0	1089.2	1076.0	1056.2	1029.7	996.7	965.8	954.7	950.3
12.5°	1144.4	1142.1	1128.9	1113.5	1084.8	1016.5	917.3	800.4	703.4	676.9	668.1
15°	1188.5	1184.1	1168.6	1142.1	1065.0	884.1	676.9	527.0	434.3	412.4	408.0
17.5°	1234.7	1228.2	1206.1	1153.2	974.6	657.0	436.6	330.7	280.0	275.6	277.8
20°	1283.3	1274.4	1243.6	1131.1	787.2	438.7	282.2	255.7	251.3	251.3	253.6
22.5°	1338.4	1327.4	1285.4	1051.7	573.3	291.0	242.5	240.3	238.1	235.9	235.9
25°	1402.4	1389.1	1325.1	908.4	394.7	238.1	231.5	224.9	220.4	216.0	213.9
27.5°	1479.5	1461.9	1356.0	732.0	271.2	222.7	218.3	207.2	198.5	189.7	189.7
30°	1556.6	1534.6	1347.2	551.3	220.4	207.2	198.5	185.3	172.0	163.2	160.9
32.5°	1638.3	1616.2	1289.8	370.4	200.6	189.7	178.6	158.8	143.3	132.3	130.1
35°	1759.5	1741.9	1177.4	244.8	180.8	167.6	152.1	132.3	112.4	101.5	99.2
37.5°	1940.3	1918.2	1038.5	187.4	158.8	138.9	125.7	103.6	83.8	72.7	70.6
40°	2182.9	2116.7	873.2	165.4	138.9	114.7	97.0	75.0	59.5	52.9	52.9
42.5°	2465.1	2308.5	694.6	150.0	123.5	94.8	70.6	50.7	41.9	39.7	39.7
45°	2764.9	2487.1	516.0	138.9	108.0	75.0	50.7	35.3	30.9	28.6	28.6
47.5°	3073.7	2632.7	359.4	125.7	90.4	57.3	35.3	26.5	22.1	19.8	19.8
50°	3362.5	2727.5	253.6	112.4	77.1	41.9	26.5	19.8	15.4	15.4	15.4
52.5°	3563.1	2718.7	183.0	97.0	59.5	28.6	17.6	13.2	13.2	13.2	13.2
55°	3739.5	2685.6	143.3	83.8	46.3	19.8	13.2	11.0	11.0	8.8	8.8
57.5°	3889.5	2632.7	121.2	68.3	33.0	15.4	8.8	8.8	6.6	6.6	6.6
60°	4017.3	2566.5	101.5	57.3	22.1	11.0	6.6	4.4	4.4	2.3	4.4
62.5°	4191.5	2524.6	88.2	44.1	15.4	6.6	4.4	2.3	2.3	0.0	0.0
65°	4319.4	2445.3	75.0	30.9	8.8	4.4	2.3	2.3	0.0	0.0	0.0
67.5°	4323.8	2301.9	55.1	17.6	6.6	4.4	2.3	0.0	0.0	0.0	0.0
70°	3975.5	1962.3	35.3	8.8	4.4	2.3	2.3	0.0	0.0	0.0	0.0
71°	3655.7	1737.5	28.6	6.6	4.4	2.3	0.0	0.0	0.0	0.0	0.0
72.5°	3011.9	1276.6	22.1	6.6	2.3	2.3	0.0	0.0	0.0	0.0	0.0
75°	1660.2	463.0	11.0	4.4	2.3	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	531.4	141.1	6.6	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	90.4	22.1	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	30.9	8.8	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	8.8	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.4	2.3	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)