

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: P265820

Luminaire Tested: **ARCH-M-AF48-110-D-U-T3-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265820
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-AF48-110-D-U-T3-7027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 720mA 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: 9302.5 lumens
Efficiency: N/A
Efficacy: 83.8 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): 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

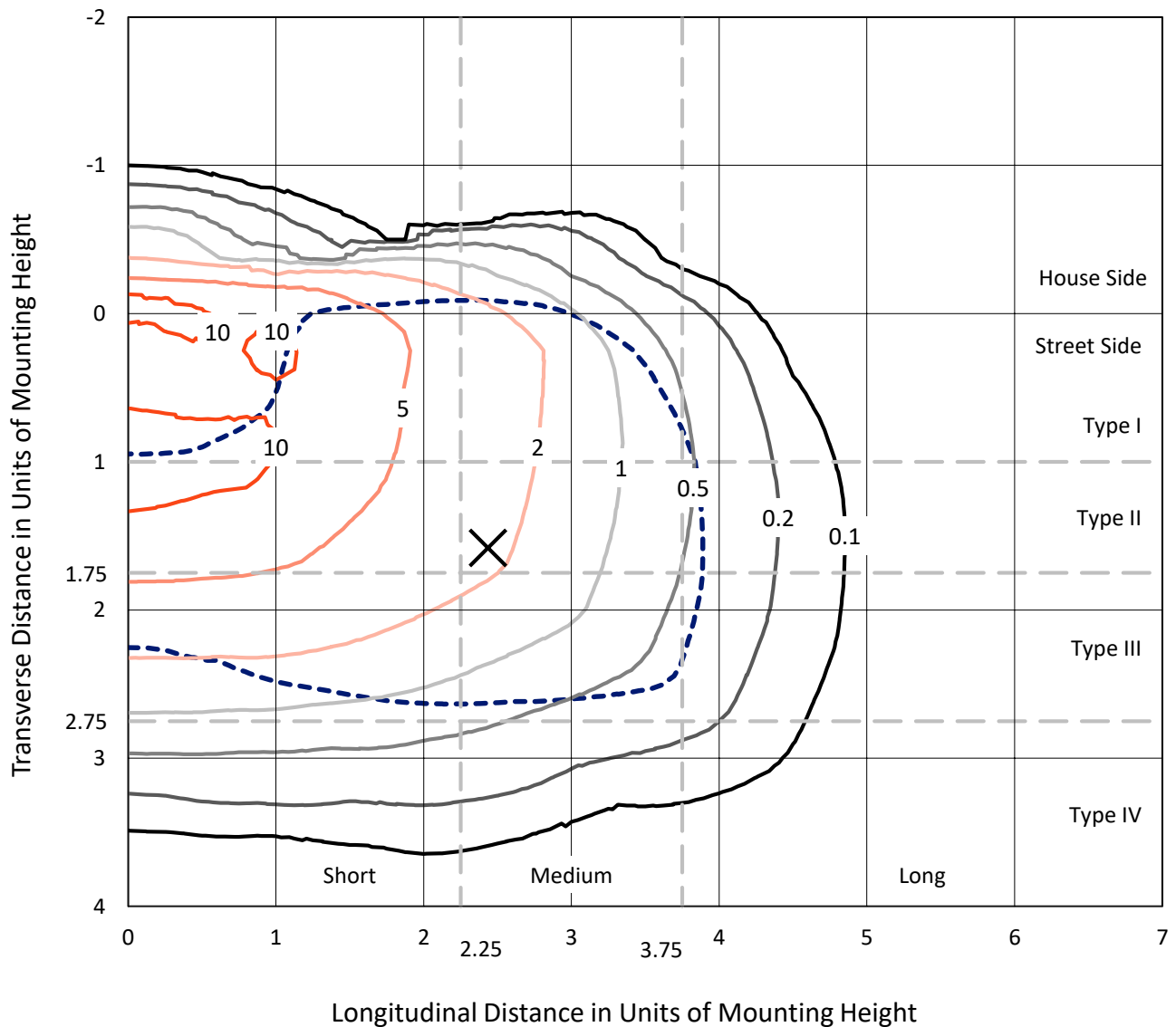


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

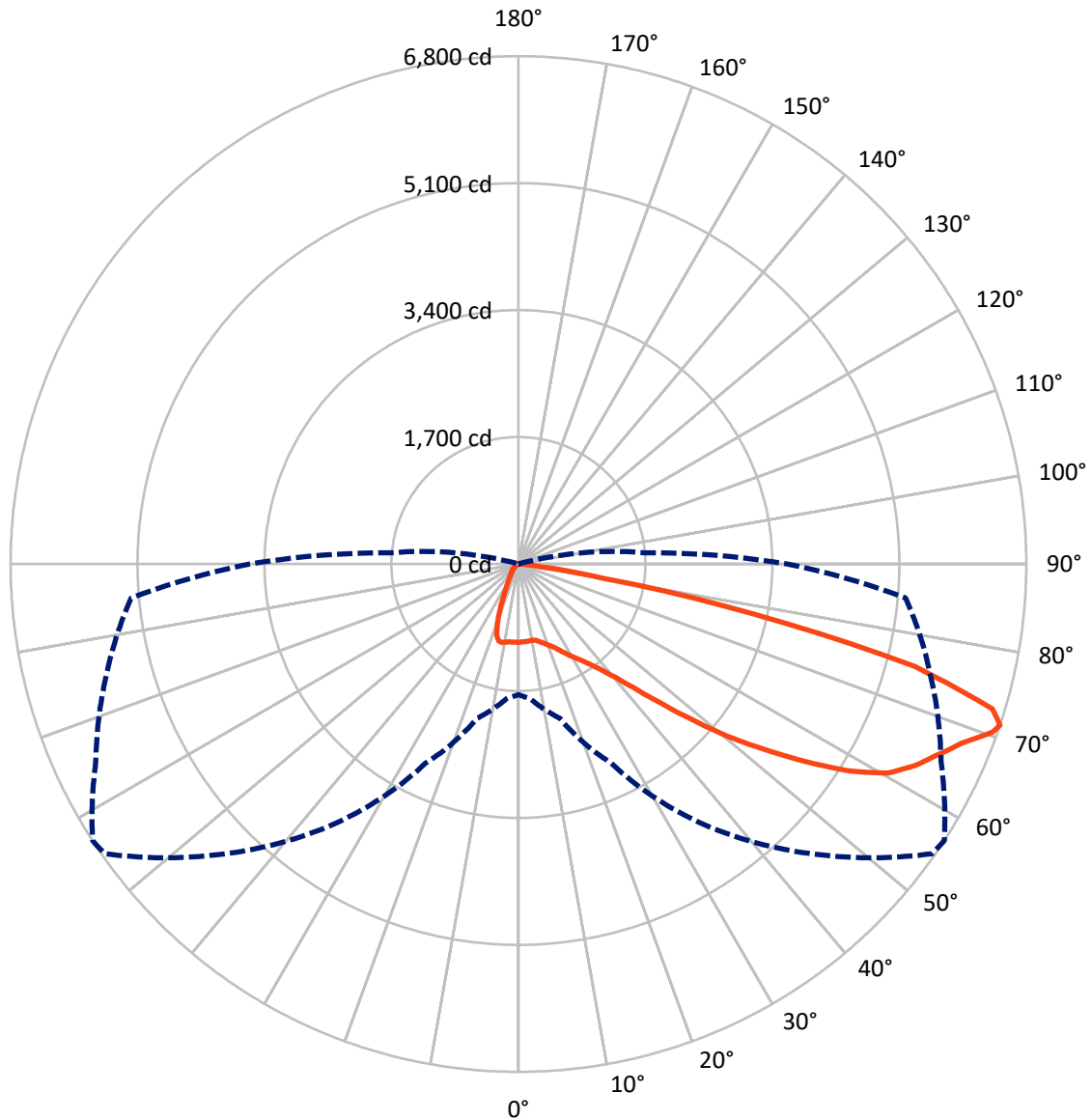


Based on 10 foot mounting height. Maximum calculated value = 13.1 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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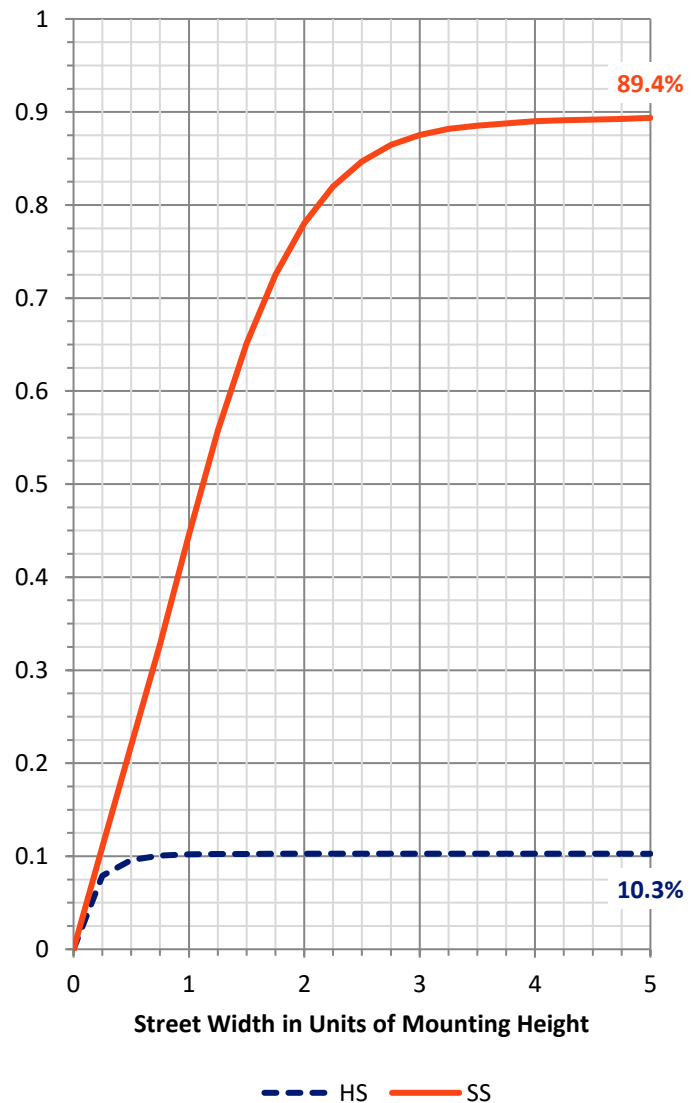
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	964.0	0.0	964.0
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	8338.5	0.0	8338.5
	% Fixture	89.6	0.0	89.6
Total	Lumens	9302.5	0.0	9302.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.7	1.1
10°-20°	264.0	2.8
20°-30°	411.8	4.4
30°-40°	696.0	7.5
40°-50°	1351.9	14.5
50°-60°	2270.3	24.4
60°-70°	2709.3	29.1
70°-80°	1427.9	15.3
80°-90°	72.6	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°	9302.5	100.0
0°-180°	9302.5	100.0



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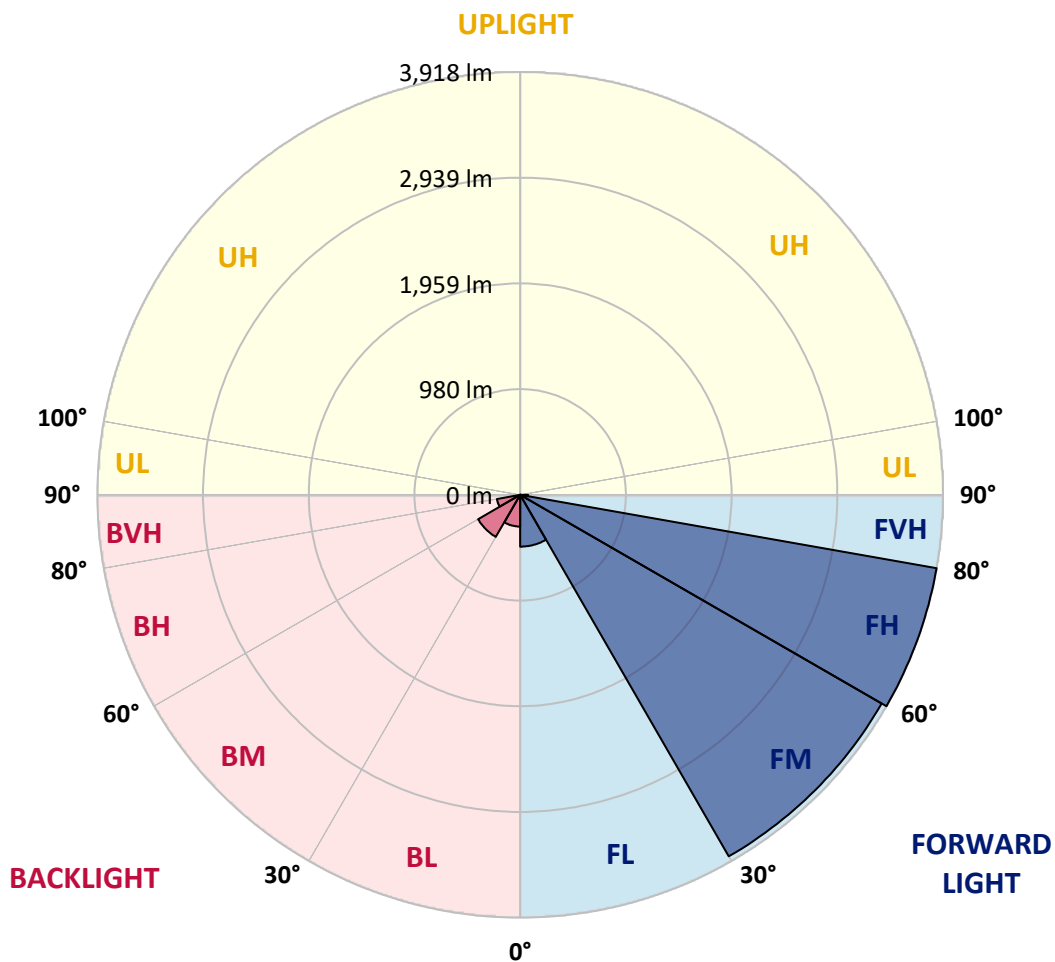
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	480.3	5.2			
FM	(30°-60°)	3868.1	41.6			
FH	(60°-80°)	3918.3	42.1			G2/5000
FVH	(80°-90°)	71.9	0.8			G1/100
BL	(0°-30°)	294.3	3.2	B1/500		
BM	(30°-60°)	450.1	4.8	B1/1000		
BH	(60°-80°)	218.9	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°	1051.3	1051.3	1051.3	1051.3	1051.3	1051.3	1051.3	1051.3	1051.3	1051.3	1051.3
2.5°	1036.1	1036.1	1036.1	1038.4	1040.4	1040.4	1044.8	1042.7	1042.7	1042.7	1047.0
5°	1008.0	1010.1	1012.3	1016.6	1025.3	1031.9	1042.7	1042.7	1044.8	1049.1	1051.3
7.5°	968.9	971.1	977.6	986.2	1003.6	1018.8	1036.1	1040.4	1047.0	1057.8	1062.2
10°	945.0	949.5	958.1	968.9	988.5	1008.0	1029.6	1036.1	1055.7	1075.2	1086.1
12.5°	938.5	940.7	949.5	966.8	990.7	1014.5	1042.7	1049.1	1077.3	1107.7	1124.9
15°	949.5	951.7	955.9	975.5	1003.6	1033.9	1070.8	1079.6	1114.2	1148.8	1170.5
17.5°	968.9	968.9	973.3	990.7	1021.0	1055.7	1103.4	1116.4	1155.4	1194.3	1218.2
20°	981.9	981.9	988.5	1005.8	1040.4	1086.1	1142.4	1159.7	1203.1	1246.4	1268.0
22.5°	995.0	997.1	1003.6	1023.1	1062.2	1124.9	1190.1	1207.4	1257.3	1302.8	1324.5
25°	1031.9	1029.6	1031.9	1049.1	1094.7	1172.6	1255.1	1276.8	1328.9	1378.7	1389.5
27.5°	1133.8	1129.3	1101.2	1090.4	1124.9	1222.6	1337.4	1359.1	1419.9	1469.6	1469.6
30°	1367.8	1359.1	1289.7	1200.9	1172.6	1268.0	1415.5	1445.8	1523.9	1567.3	1554.2
32.5°	1664.7	1645.2	1556.5	1404.7	1291.9	1328.9	1497.8	1532.6	1632.3	1669.1	1640.9
35°	1989.9	1987.8	1877.2	1682.2	1521.6	1454.5	1604.1	1645.2	1771.0	1803.4	1758.1
37.5°	2334.5	2343.3	2269.6	2000.7	1812.2	1660.4	1745.0	1792.7	1946.5	1985.7	1942.2
40°	2718.4	2716.0	2687.9	2369.3	2161.1	1953.1	1948.8	1992.1	2178.5	2239.3	2178.5
42.5°	3203.9	3199.6	3097.6	2811.4	2583.9	2334.5	2245.8	2260.9	2469.0	2568.8	2479.9
45°	3698.1	3667.7	3550.6	3303.5	3101.9	2807.2	2638.1	2638.1	2815.7	2952.4	2813.6
47.5°	3973.4	3943.0	3895.3	3758.8	3698.1	3368.6	3119.3	3088.9	3227.7	3366.4	3171.2
50°	4335.3	4335.3	4216.1	4164.2	4268.1	4036.3	3650.4	3620.0	3687.3	3797.8	3541.9
52.5°	4621.5	4569.5	4484.9	4530.4	4827.4	4721.2	4181.4	4123.0	4175.0	4203.1	3865.0
55°	4740.6	4690.9	4684.3	4851.2	5310.8	5163.4	4725.5	4673.5	4669.2	4530.4	4146.8
57.5°	4764.5	4721.2	4803.5	5096.3	5781.2	5525.5	5267.4	5228.4	5107.0	4760.2	4435.0
60°	4562.9	4584.6	4784.1	5230.7	6058.7	5839.7	5724.8	5683.7	5404.1	4955.3	4755.8
62.5°	4148.9	4201.0	4573.8	5243.5	5956.8	5967.6	5978.4	5950.3	5633.8	5133.1	5078.8
65°	3659.1	3674.2	4123.0	5063.7	5779.1	5928.5	6164.9	6162.7	5809.3	5332.5	5443.0
67.5°	3015.3	3041.2	3429.3	4456.8	5423.4	5911.2	6409.8	6403.3	6008.9	5560.1	5659.9
70°	2243.5	2276.0	2590.4	3466.1	4630.1	5694.4	6730.6	6735.0	6219.1	5733.5	5510.3
71°	1749.3	1807.7	2137.3	2943.7	4224.8	5475.6	6761.0	6800.0	6243.0	5709.6	5202.4
72.5°	858.4	927.8	1341.8	2072.3	3477.0	4985.7	6561.5	6637.3	6093.4	5412.6	4448.0
75°	223.3	236.3	401.1	847.6	1864.3	3303.5	5291.2	5484.2	4981.3	4120.7	2718.4
77.5°	140.9	145.3	188.6	329.5	698.1	1255.1	3108.4	3203.9	2846.2	2087.5	958.1
80°	99.7	101.9	119.3	212.4	407.6	366.2	1118.5	1159.7	1029.6	552.7	171.2
82.5°	60.6	60.6	86.6	136.5	251.4	199.5	294.9	314.2	277.4	153.9	56.4
85°	34.7	36.8	54.2	93.2	119.3	97.6	110.5	117.0	119.3	101.9	23.9
87.5°	28.1	30.4	47.7	78.1	65.0	47.7	47.7	49.9	52.0	60.6	10.8
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°	1051.3	1051.3	1051.3	1051.3	1051.3	1051.3	1051.3	1051.3	1051.3	1051.3	1051.3
2.5°	1047.0	1047.0	1049.1	1047.0	1047.0	1047.0	1049.1	1049.1	1049.1	1053.5	1055.7
5°	1051.3	1051.3	1051.3	1049.1	1047.0	1047.0	1051.3	1053.5	1053.5	1060.0	1060.0
7.5°	1062.2	1062.2	1057.8	1053.5	1049.1	1042.7	1044.8	1047.0	1044.8	1047.0	1047.0
10°	1086.1	1086.1	1079.6	1070.8	1057.8	1038.4	1012.3	979.8	949.5	938.5	934.2
12.5°	1124.9	1122.8	1109.9	1094.7	1066.5	999.4	901.8	786.8	691.4	665.5	656.8
15°	1168.3	1164.1	1148.8	1122.8	1047.0	869.2	665.5	518.1	427.1	405.3	401.1
17.5°	1213.9	1207.4	1185.8	1133.8	958.1	646.1	429.2	325.1	275.3	271.0	273.2
20°	1261.6	1253.0	1222.6	1112.0	773.9	431.4	277.4	251.4	247.2	247.2	249.3
22.5°	1315.7	1305.0	1263.7	1033.9	563.5	286.1	238.4	236.3	234.1	231.9	231.9
25°	1378.7	1365.7	1302.8	893.0	388.0	234.1	227.6	221.2	216.9	212.4	210.3
27.5°	1454.5	1437.2	1333.2	719.6	266.6	218.9	214.5	203.7	195.1	186.4	186.4
30°	1530.4	1508.8	1324.5	541.9	216.9	203.7	195.1	182.0	169.2	160.3	158.2
32.5°	1610.7	1588.9	1268.0	364.2	197.3	186.4	175.6	156.0	140.9	130.1	127.9
35°	1729.7	1712.4	1157.6	240.7	177.8	164.7	149.6	130.1	110.5	99.7	97.6
37.5°	1907.6	1885.9	1021.0	184.2	156.0	136.5	123.5	101.9	82.4	71.5	69.3
40°	2146.1	2081.0	858.4	162.6	136.5	112.6	95.4	73.8	58.5	52.0	52.0
42.5°	2423.4	2269.6	682.8	147.4	121.5	93.2	69.3	49.9	41.2	39.0	39.0
45°	2718.4	2445.1	507.3	136.5	106.2	73.8	49.9	34.7	30.4	28.1	28.1
47.5°	3021.8	2588.1	353.4	123.5	88.9	56.4	34.7	26.1	21.6	19.6	19.6
50°	3305.8	2681.4	249.3	110.5	75.8	41.2	26.1	19.6	15.2	15.2	15.2
52.5°	3503.0	2672.7	179.9	95.4	58.5	28.1	17.3	13.0	13.0	13.0	13.0
55°	3676.4	2640.2	140.9	82.4	45.5	19.6	13.0	10.8	10.8	8.7	8.7
57.5°	3823.7	2588.1	119.3	67.3	32.5	15.2	8.7	8.7	6.5	6.5	6.5
60°	3949.5	2523.2	99.7	56.4	21.6	10.8	6.5	4.3	4.3	2.2	4.3
62.5°	4120.7	2481.9	86.6	43.4	15.2	6.5	4.3	2.2	2.2	0.0	0.0
65°	4246.5	2404.0	73.8	30.4	8.7	4.3	2.2	2.2	0.0	0.0	0.0
67.5°	4250.8	2263.0	54.2	17.3	6.5	4.3	2.2	0.0	0.0	0.0	0.0
70°	3908.3	1929.2	34.7	8.7	4.3	2.2	2.2	0.0	0.0	0.0	0.0
71°	3593.9	1708.1	28.1	6.5	4.3	2.2	0.0	0.0	0.0	0.0	0.0
72.5°	2961.1	1255.1	21.6	6.5	2.2	2.2	0.0	0.0	0.0	0.0	0.0
75°	1632.3	455.3	10.8	4.3	2.2	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	522.5	138.7	6.5	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	88.9	21.6	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	30.4	8.7	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	8.7	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.3	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)