

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: P257852

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P257852
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-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 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: 9483.8 lumens
Efficiency: N/A
Efficacy: 93.9 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

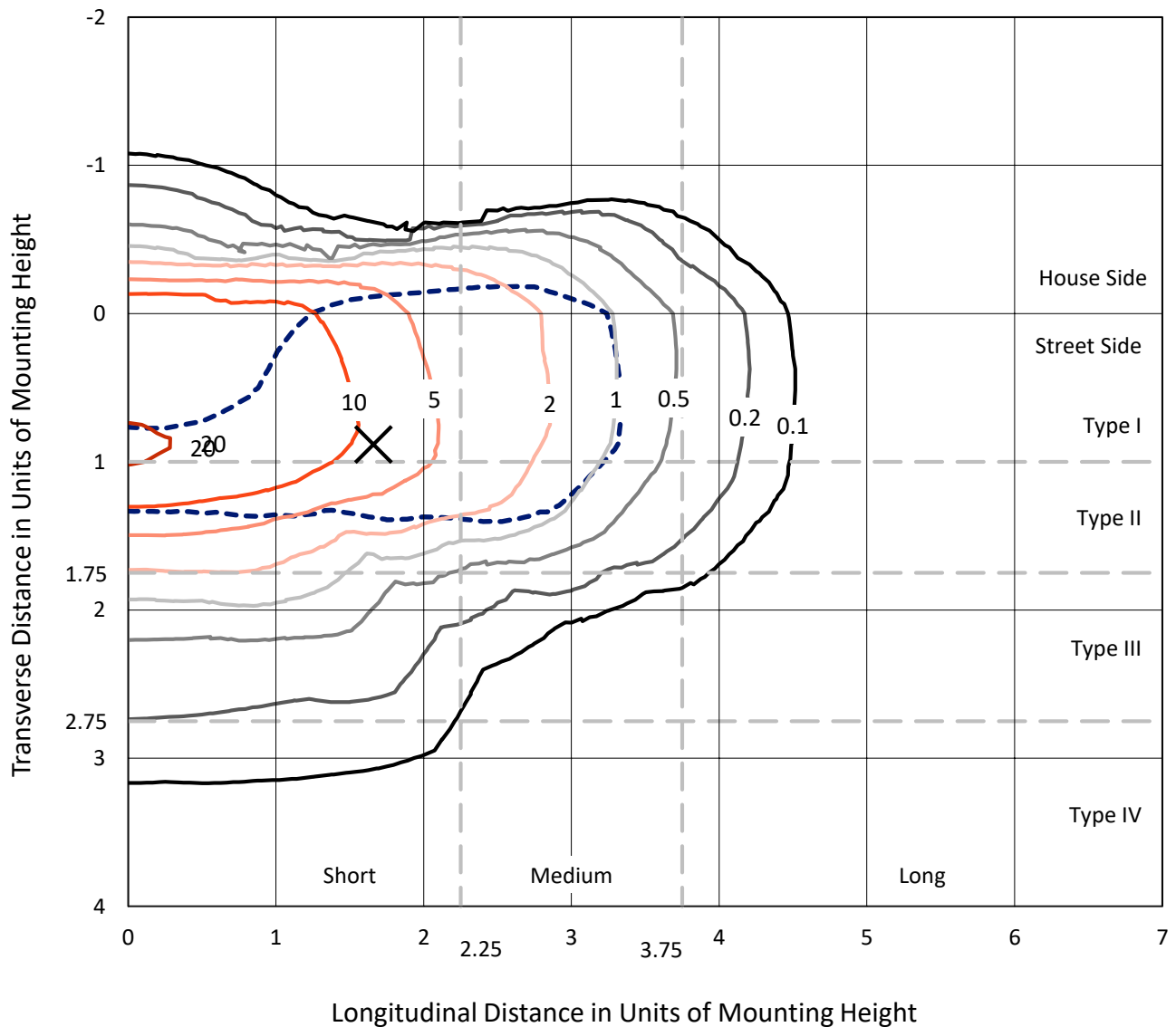


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

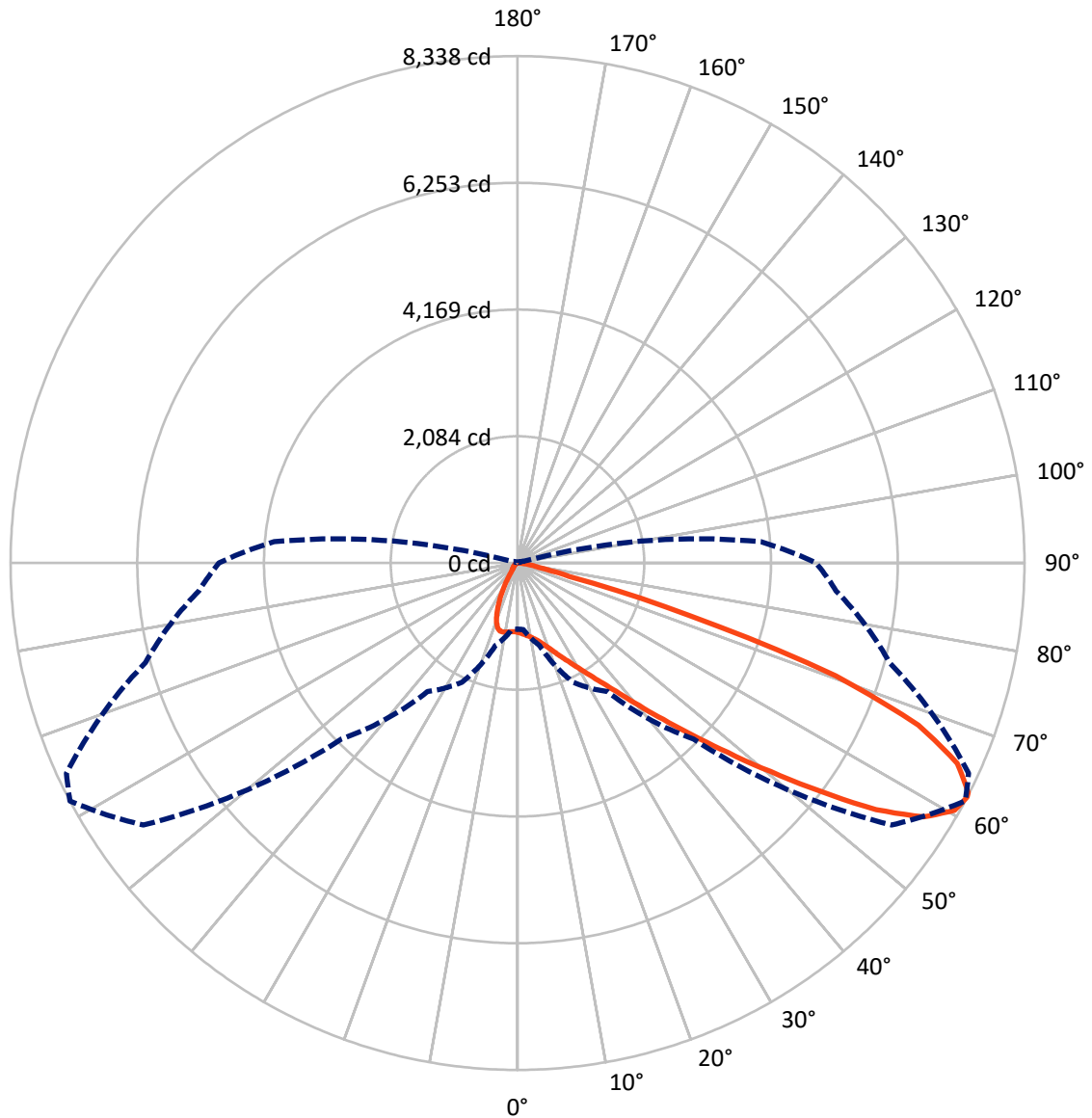


Based on 10 foot mounting height. Maximum calculated value = 21.8 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



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



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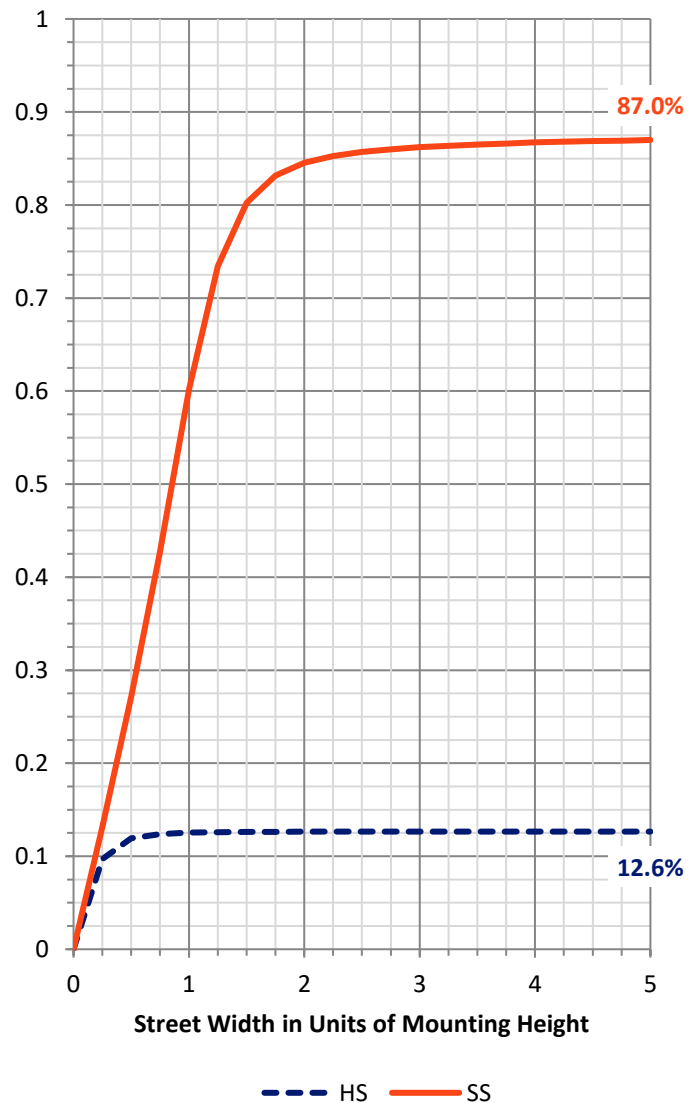
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1212.6	0.0	1212.6
	% Fixture	12.8	0.0	12.8
Street Side	Lumens	8271.2	0.0	8271.2
	% Fixture	87.2	0.0	87.2
Total	Lumens	9483.8	0.0	9483.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.9	1.2
10°-20°	307.0	3.2
20°-30°	515.6	5.4
30°-40°	988.4	10.4
40°-50°	2018.8	21.3
50°-60°	2671.6	28.2
60°-70°	2075.4	21.9
70°-80°	749.1	7.9
80°-90°	47.8	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°	9483.8	100.0
0°-180°	9483.8	100.0

Coefficient of Utilization



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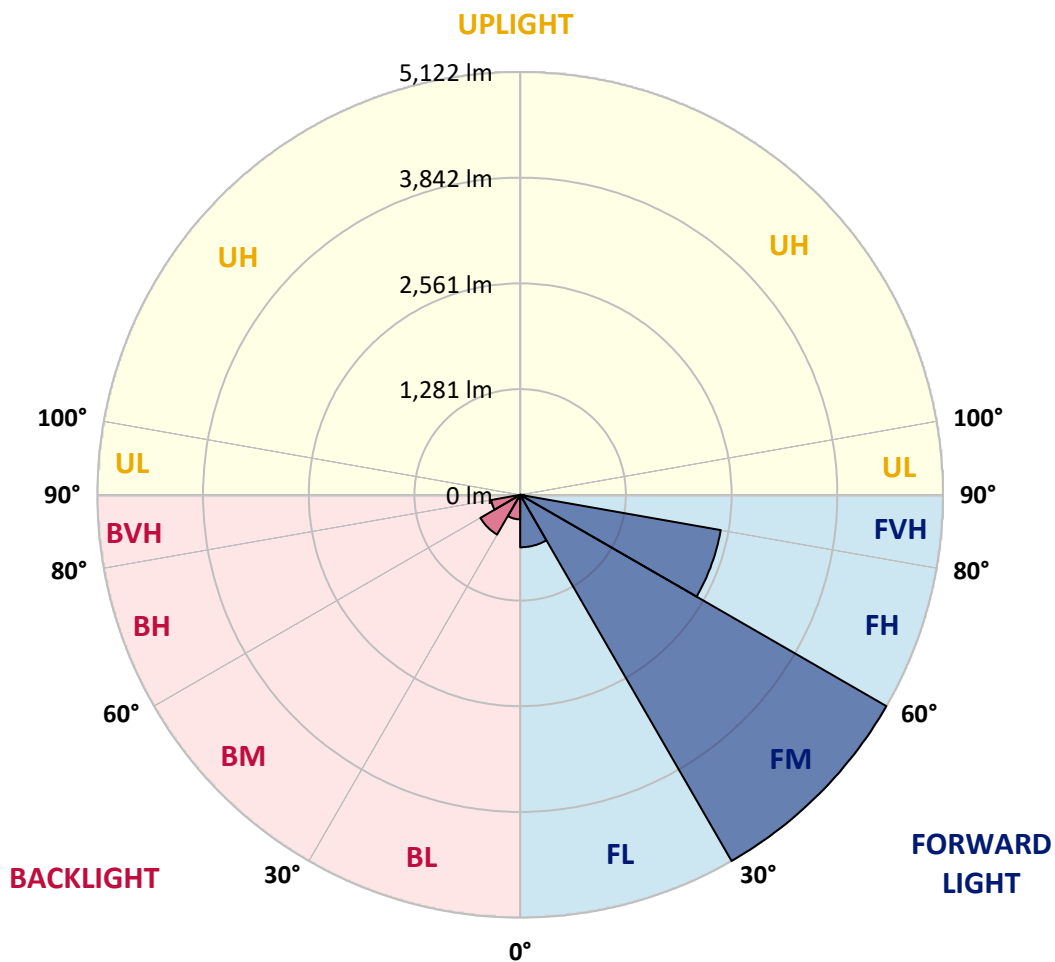
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	635.8	6.7			
FM (30°-60°)	5122.2	54.0			
FH (60°-80°)	2467.5	26.0			G2/5000
FVH (80°-90°)	45.7	0.5			G1/100
BL (0°-30°)	296.8	3.1	B1/500		
BM (30°-60°)	556.7	5.9	B1/1000		
BH (60°-80°)	357.1	3.8	B1/500		G1/500
BVH (80°-90°)	2.1	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°	1142.4	1142.4	1142.4	1142.4	1142.4	1142.4	1142.4	1142.4	1142.4	1142.4	1142.4
2.5°	1172.7	1170.5	1168.1	1165.8	1165.8	1163.4	1161.0	1156.4	1151.7	1147.1	1144.8
5°	1193.8	1191.4	1189.1	1191.4	1189.1	1189.1	1186.7	1182.1	1177.4	1170.5	1163.4
7.5°	1210.0	1207.7	1205.4	1207.7	1210.0	1212.4	1214.8	1210.0	1207.7	1198.4	1191.4
10°	1231.0	1228.7	1226.4	1231.0	1231.0	1242.7	1245.0	1242.7	1240.3	1233.4	1221.7
12.5°	1261.4	1263.7	1263.7	1268.4	1273.0	1287.0	1291.7	1284.6	1284.6	1275.3	1261.4
15°	1317.4	1317.4	1317.4	1322.0	1324.3	1342.9	1347.6	1340.6	1345.3	1328.9	1315.0
17.5°	1371.0	1373.3	1377.9	1387.2	1387.2	1403.6	1412.9	1412.9	1422.2	1401.2	1382.6
20°	1424.6	1426.9	1433.9	1454.8	1454.8	1475.8	1492.2	1499.1	1508.4	1487.5	1454.8
22.5°	1482.9	1482.9	1494.5	1527.2	1520.1	1562.1	1592.4	1604.1	1613.4	1585.5	1534.1
25°	1571.5	1562.1	1571.5	1601.7	1597.1	1655.3	1711.3	1723.0	1734.6	1702.0	1625.1
27.5°	1739.3	1725.3	1692.7	1695.0	1695.0	1762.6	1841.9	1858.2	1865.2	1837.2	1741.7
30°	2075.1	2075.1	1953.8	1872.2	1818.6	1879.2	1991.1	2019.1	2028.4	1986.5	1860.5
32.5°	2660.3	2660.3	2436.5	2228.9	2026.1	2026.1	2154.3	2205.6	2214.9	2166.0	2019.1
35°	3406.3	3401.7	3066.0	2781.5	2385.1	2236.0	2345.5	2431.8	2459.8	2394.4	2224.3
37.5°	4199.1	4168.7	3807.3	3481.0	2937.7	2571.7	2604.3	2718.6	2744.2	2690.6	2490.1
40°	4842.5	4807.6	4516.1	4243.4	3651.1	3107.9	2977.4	3082.3	3112.5	3038.0	2807.2
42.5°	5425.4	5339.2	5138.7	4942.8	4471.8	4035.8	3473.9	3515.9	3548.6	3469.3	3163.9
45°	5847.5	5714.5	5612.0	5551.3	5301.9	5054.7	4117.5	4033.5	4045.2	3947.3	3553.2
47.5°	5859.2	5765.9	5775.2	5933.7	6036.3	6027.0	4954.5	4656.1	4611.8	4448.5	3968.2
50°	5299.5	5353.2	5523.3	5975.7	6530.6	6866.4	5950.0	5392.8	5259.9	4966.1	4380.9
52.5°	4367.0	4450.9	4770.3	5532.7	6602.8	7418.8	6982.9	6234.5	5996.6	5479.0	4698.0
55°	3420.3	3425.0	3760.8	4537.1	6120.2	7519.2	7808.3	7160.1	6796.4	5868.5	4907.8
57.5°	2352.5	2480.8	2907.4	3429.6	5031.4	7020.2	8118.3	7878.2	7409.5	6108.6	5054.7
60°	1541.2	1548.1	2044.8	2648.6	3425.0	5712.3	7929.5	8258.3	7906.2	6250.8	5155.0
62°	1086.5	1098.1	1405.9	2163.6	2581.0	4094.2	7512.1	8337.6	8186.0	6334.7	5259.9
62.5°	1007.2	1016.5	1275.3	2042.4	2424.8	3672.2	7362.9	8318.8	8227.9	6362.8	5297.2
65°	739.1	739.1	834.7	1403.6	1776.7	1984.1	6239.2	7948.1	8171.9	6586.6	5437.1
67.5°	571.2	575.9	608.6	865.0	1340.6	1203.1	3982.2	7113.5	7589.1	6917.6	5516.4
70°	491.9	489.6	512.9	573.6	967.6	799.7	1753.3	5551.3	6355.7	6833.7	5444.1
72.5°	363.8	366.0	419.7	503.6	673.8	520.0	792.7	2947.0	4122.1	5348.5	4665.4
75°	233.1	235.5	296.1	396.4	485.0	340.4	457.0	879.0	1688.0	2965.7	2853.8
77.5°	156.2	160.9	193.5	277.4	424.3	212.2	286.7	368.4	508.3	1112.2	1023.6
80°	105.0	105.0	123.6	186.5	268.1	177.2	153.9	244.8	263.5	345.0	172.6
82.5°	70.0	70.0	81.6	123.6	174.8	158.6	93.3	132.9	153.9	172.6	60.7
85°	41.9	41.9	56.0	76.9	114.3	88.6	60.7	74.6	79.3	109.6	32.6
87.5°	25.7	23.3	37.3	53.6	60.7	53.6	39.6	39.6	41.9	60.7	16.4
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°	1142.4	1142.4	1142.4	1142.4	1142.4	1142.4	1142.4	1142.4	1142.4	1142.4	1142.4
2.5°	1140.1	1137.8	1135.5	1130.8	1123.8	1119.1	1114.5	1109.8	1105.1	1105.1	1112.2
5°	1161.0	1154.1	1144.8	1135.5	1121.5	1112.2	1105.1	1095.8	1091.2	1091.2	1093.4
7.5°	1186.7	1179.8	1163.4	1147.1	1126.2	1109.8	1093.4	1072.5	1056.2	1049.1	1056.2
10°	1214.8	1205.4	1182.1	1156.4	1133.1	1091.2	1037.5	972.2	916.3	890.7	902.3
12.5°	1249.7	1238.1	1210.0	1175.1	1121.5	1018.9	886.0	734.5	638.8	594.5	603.8
15°	1301.0	1284.6	1245.0	1191.4	1072.5	851.0	634.1	459.3	370.7	333.4	338.1
17.5°	1361.6	1340.6	1287.0	1186.7	946.6	613.2	377.7	268.1	230.8	221.5	221.5
20°	1426.9	1398.9	1328.9	1151.7	755.4	384.7	235.5	205.2	191.2	184.2	184.2
22.5°	1494.5	1457.2	1363.9	1070.2	538.6	240.2	193.5	172.6	156.2	149.2	149.2
25°	1576.1	1527.2	1398.9	927.9	342.7	193.5	165.5	144.5	128.3	118.9	121.2
27.5°	1671.7	1608.8	1429.3	750.7	221.5	167.9	137.6	116.6	102.6	97.9	97.9
30°	1772.0	1697.4	1436.2	561.9	179.5	144.5	114.3	95.5	86.2	81.6	81.6
32.5°	1909.5	1811.5	1415.3	373.1	151.5	121.2	95.5	79.3	72.3	70.0	70.0
35°	2091.4	1960.8	1366.3	230.8	128.3	100.2	79.3	70.0	62.9	60.7	60.7
37.5°	2322.2	2168.3	1280.0	158.6	109.6	81.6	67.6	60.7	56.0	53.6	53.6
40°	2629.9	2420.1	1168.1	137.6	93.3	70.0	58.3	53.6	49.0	49.0	49.0
42.5°	2956.3	2725.6	1023.6	121.2	79.3	60.7	51.2	46.6	44.3	41.9	41.9
45°	3313.1	3038.0	844.0	107.2	67.6	53.6	46.6	39.6	37.3	37.3	37.3
47.5°	3667.5	3359.7	648.1	93.3	58.3	46.6	39.6	35.0	32.6	30.3	30.3
50°	4031.2	3651.1	475.7	81.6	51.2	41.9	35.0	30.3	25.7	23.3	23.3
52.5°	4294.7	3826.0	347.4	70.0	44.3	35.0	28.0	23.3	18.6	16.4	16.4
55°	4488.2	3933.2	254.1	58.3	39.6	30.3	23.3	18.6	14.0	14.0	11.7
57.5°	4639.7	3984.6	191.2	51.2	35.0	25.7	18.6	14.0	11.7	9.3	9.3
60°	4756.3	3986.8	142.2	41.9	30.3	21.0	14.0	9.3	7.0	7.0	7.0
62°	4910.2	4017.2	116.6	35.0	28.0	18.6	11.7	7.0	4.7	2.4	2.4
62.5°	4954.5	4028.9	111.9	35.0	25.7	16.4	9.3	7.0	4.7	2.4	2.4
65°	5159.7	4049.9	86.2	28.0	21.0	14.0	7.0	4.7	0.0	0.0	0.0
67.5°	5346.1	4017.2	62.9	21.0	16.4	9.3	7.0	2.4	0.0	0.0	0.0
70°	5327.5	3793.4	44.3	14.0	11.7	7.0	4.7	0.0	0.0	0.0	0.0
72.5°	4390.3	2839.8	30.3	11.7	7.0	4.7	2.4	0.0	0.0	0.0	0.0
75°	2651.0	1242.7	21.0	7.0	7.0	4.7	2.4	0.0	0.0	0.0	0.0
77.5°	869.6	450.0	14.0	4.7	4.7	2.4	2.4	0.0	0.0	0.0	0.0
80°	142.2	74.6	7.0	4.7	4.7	2.4	2.4	0.0	0.0	0.0	0.0
82.5°	44.3	18.6	4.7	4.7	2.4	2.4	0.0	0.0	0.0	0.0	0.0
85°	16.4	7.0	4.7	4.7	2.4	2.4	0.0	0.0	0.0	0.0	0.0
87.5°	7.0	4.7	4.7	4.7	2.4	2.4	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)