

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: P231309

Luminaire Tested: **ARCH-M-AF48-40-D-U-T4W-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231309
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29615)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-40-D-U-T4W-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 240mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5399 lumens
Efficiency: N/A
Efficacy: 142.1 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): 38
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

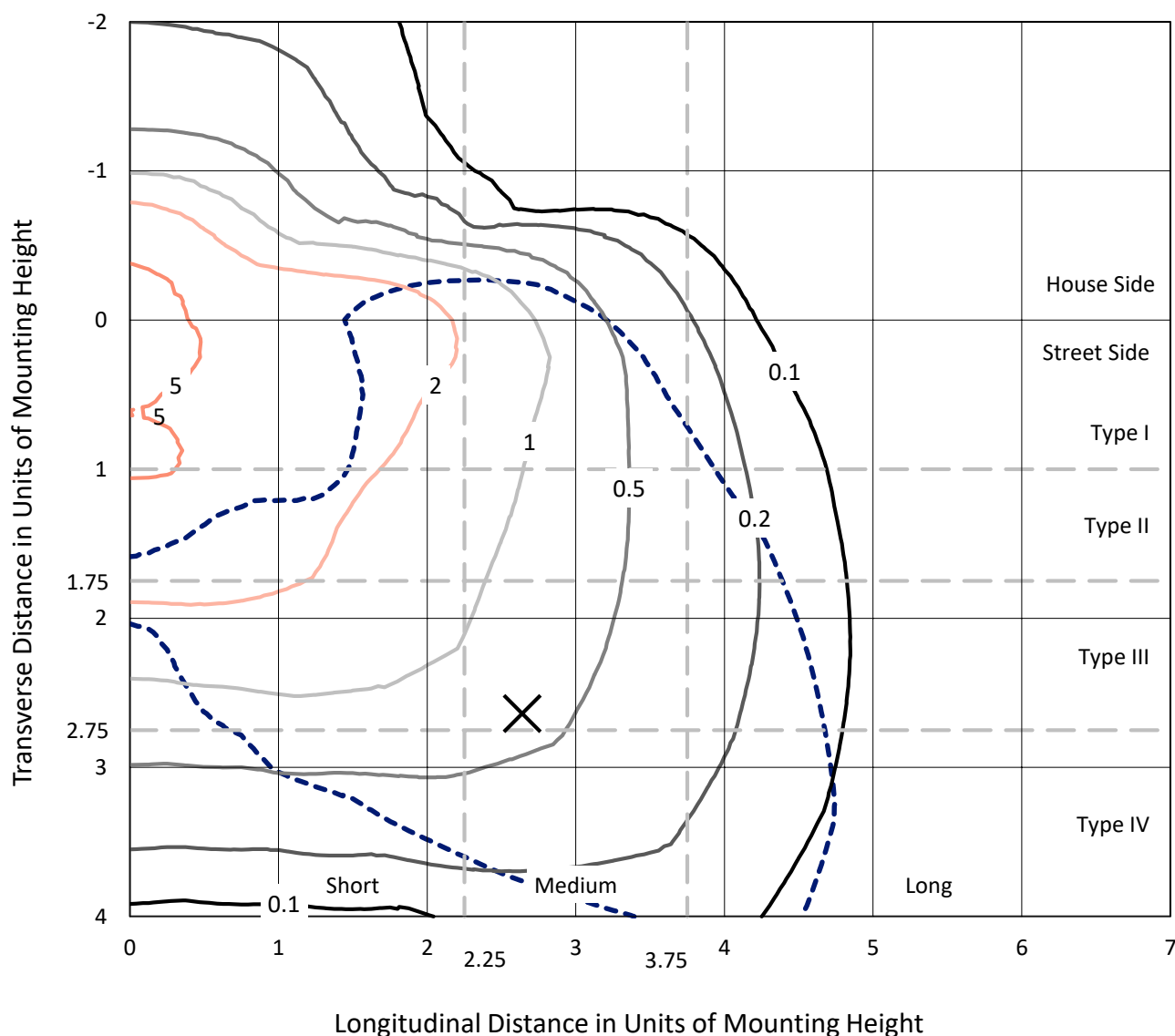


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

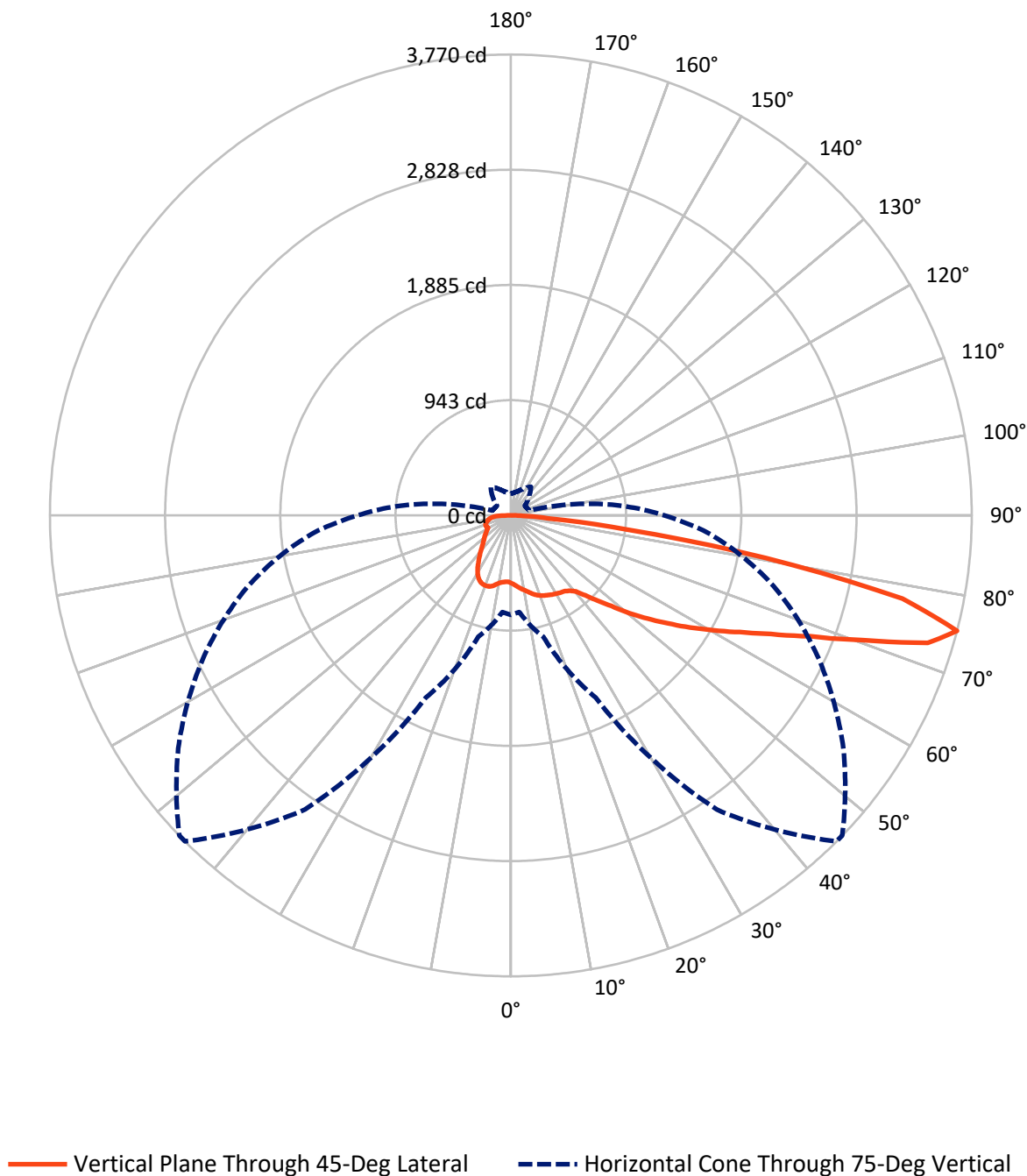


Based on 10 foot mounting height. Maximum calculated value = 6.5 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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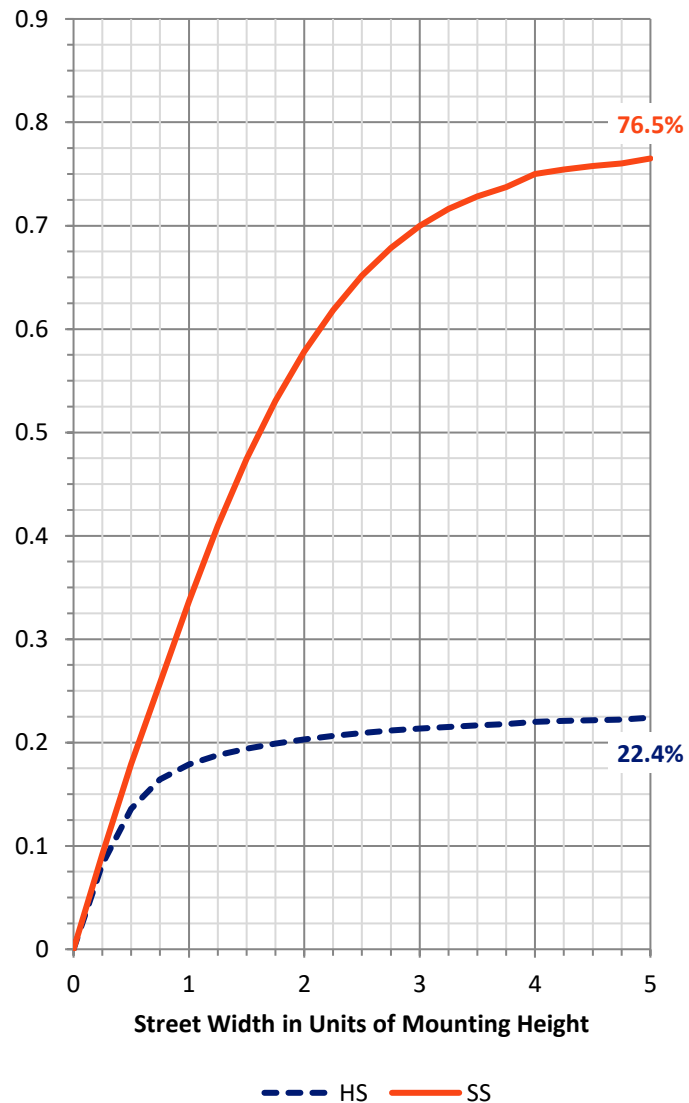
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1250.7	0.0	1250.7
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	4148.3	0.0	4148.3
	% Fixture	76.8	0.0	76.8
Total	Lumens	5399.0	0.0	5399.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.8	1.0
10°-20°	177.7	3.3
20°-30°	305.0	5.6
30°-40°	426.6	7.9
40°-50°	625.8	11.6
50°-60°	974.8	18.1
60°-70°	1402.6	26.0
70°-80°	1221.8	22.6
80°-90°	209.8	3.9
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°	5399.0	100.0
0°-180°	5399.0	100.0

Coefficient of Utilization



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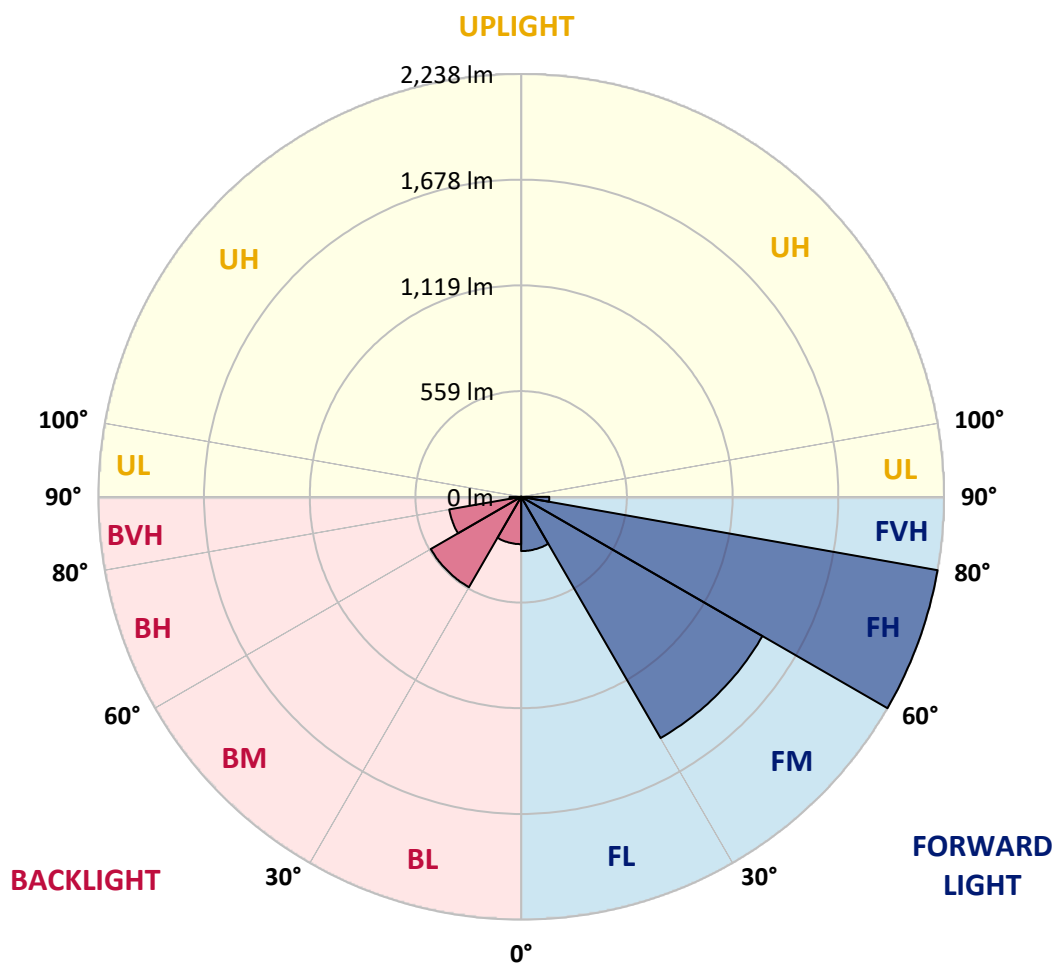
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	287.1	5.3			
FM	(30°-60°)	1474.4	27.3			
FH	(60°-80°)	2237.9	41.5			G2/5000
FVH	(80°-90°)	148.9	2.8			G2/225
BL	(0°-30°)	250.5	4.6	B1/500		
BM	(30°-60°)	552.8	10.2	B1/1000		
BH	(60°-80°)	386.5	7.2	B1/500		G1/500
BVH	(80°-90°)	61.0	1.1			G1/100
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°	45°	46°	55°	65°	75°	85°
0°	553.5	553.5	553.5	553.5	553.5	553.5	553.5	553.5	553.5	553.5	553.5
2.5°	580.8	576.6	576.6	573.4	573.4	568.2	566.1	565.0	559.8	556.6	553.5
5°	614.4	609.1	608.1	600.7	597.6	586.0	585.0	577.6	568.2	558.7	551.4
7.5°	644.8	641.7	636.4	629.1	619.6	604.9	603.9	592.3	576.6	564.0	553.5
10°	666.9	664.8	657.4	648.0	637.5	622.8	621.7	609.1	590.2	575.5	560.8
12.5°	693.2	690.0	680.6	667.9	656.4	642.7	641.7	631.2	610.2	591.3	572.4
15°	718.4	714.2	702.6	690.0	677.4	665.8	665.8	654.3	632.2	610.2	588.1
17.5°	731.0	728.9	717.3	703.7	693.2	684.8	683.7	673.2	651.1	628.0	603.9
20°	735.2	736.2	725.7	711.0	703.7	699.5	698.4	691.1	666.9	644.8	621.7
22.5°	734.1	737.3	728.9	713.1	711.0	711.0	711.0	702.6	683.7	661.6	638.5
25°	738.3	742.5	736.2	717.3	717.3	721.5	721.5	717.3	700.5	681.6	658.5
27.5°	753.0	756.2	750.9	724.7	725.7	732.0	731.0	732.0	721.5	703.7	680.6
30°	770.9	775.1	768.8	736.2	735.2	741.5	741.5	746.7	739.4	720.5	701.6
32.5°	819.2	818.1	798.2	748.8	745.7	752.0	752.0	757.2	753.0	738.3	720.5
35°	963.1	947.3	903.2	789.8	758.3	761.4	761.4	770.9	773.0	761.4	745.7
37.5°	1110.1	1104.8	1071.2	899.0	804.5	781.4	780.3	794.0	803.4	794.0	783.5
40°	1258.2	1254.0	1246.6	1045.0	901.1	817.1	813.9	825.5	842.3	836.0	829.7
42.5°	1395.8	1393.7	1401.0	1188.9	1024.0	893.8	884.3	870.6	894.8	892.7	892.7
45°	1503.9	1509.2	1513.4	1323.3	1157.4	992.5	980.9	934.7	967.3	975.7	982.0
47.5°	1564.9	1569.1	1583.8	1454.6	1290.7	1106.9	1098.5	1022.9	1066.0	1091.2	1109.0
50°	1652.0	1640.5	1653.1	1582.7	1451.4	1256.1	1233.0	1141.6	1196.2	1240.3	1282.3
52.5°	1736.0	1717.1	1727.6	1730.8	1634.2	1402.1	1377.9	1281.3	1349.6	1418.9	1493.4
55°	1811.7	1810.6	1821.1	1874.7	1810.6	1558.5	1531.2	1435.7	1534.4	1609.0	1735.0
57.5°	1872.6	1883.1	1929.3	2041.7	2014.4	1728.7	1698.2	1615.3	1731.8	1806.4	2015.4
60°	1944.0	1960.8	2037.5	2183.4	2200.2	1907.2	1875.7	1815.9	1934.5	2010.2	2339.9
62.5°	1968.1	1992.3	2149.8	2332.6	2394.5	2102.6	2074.2	2034.3	2147.7	2216.0	2663.4
65°	1807.5	1853.7	2211.8	2409.2	2603.5	2337.8	2313.7	2279.0	2359.9	2405.0	2882.9
67.5°	1763.3	1784.4	2091.0	2519.5	2799.9	2640.3	2616.1	2556.3	2558.4	2539.5	2954.3
70°	1701.4	1724.5	1967.1	2602.5	3081.4	3054.1	3024.7	2848.2	2740.1	2625.6	2813.6
72.5°	1449.3	1442.0	1695.1	2378.8	3216.9	3566.6	3531.9	3162.3	2874.5	2551.0	2374.6
75°	813.9	792.9	1028.2	1645.7	2937.5	3770.3	3769.3	3320.8	2780.0	2222.3	1616.3
77.5°	236.3	230.0	339.2	690.0	1977.6	3275.7	3315.6	2995.3	2320.0	1596.4	887.4
80°	111.3	113.4	146.0	227.9	844.4	2114.1	2228.6	1972.3	1386.3	736.2	366.5
82.5°	70.4	71.4	99.8	147.0	357.1	959.9	1054.4	887.4	549.3	318.2	161.7
85°	44.1	44.1	66.2	96.6	213.2	306.7	332.9	302.5	235.3	173.3	88.2
87.5°	24.2	24.2	39.9	55.7	116.6	98.7	101.9	120.8	147.0	106.1	44.1
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°	553.5	553.5	553.5	553.5	553.5	553.5	553.5	553.5	553.5	553.5	553.5
2.5°	552.4	550.3	547.2	546.1	545.1	544.0	545.1	547.2	545.1	545.1	546.1
5°	549.3	547.2	543.0	543.0	544.0	545.1	550.3	553.5	554.5	554.5	554.5
7.5°	549.3	546.1	543.0	544.0	546.1	550.3	558.7	564.0	568.2	569.2	569.2
10°	554.5	550.3	548.2	550.3	556.6	559.8	568.2	576.6	581.8	583.9	583.9
12.5°	564.0	559.8	559.8	564.0	572.4	576.6	583.9	590.2	596.5	599.7	599.7
15°	579.7	574.5	575.5	582.9	592.3	596.5	601.8	603.9	609.1	613.3	613.3
17.5°	594.4	589.2	591.3	599.7	606.0	608.1	611.2	610.2	612.3	615.4	616.5
20°	611.2	606.0	607.0	612.3	613.3	611.2	611.2	608.1	607.0	612.3	614.4
22.5°	628.0	622.8	621.7	618.6	613.3	608.1	604.9	601.8	599.7	604.9	607.0
25°	648.0	640.6	635.4	621.7	608.1	598.6	594.4	592.3	591.3	596.5	598.6
27.5°	670.1	662.7	646.9	617.5	595.5	579.7	576.6	576.6	578.7	581.8	583.9
30°	691.1	683.7	655.3	608.1	573.4	550.3	547.2	550.3	555.6	558.7	561.9
32.5°	712.1	704.7	660.6	593.4	540.9	511.5	509.4	514.6	523.0	525.1	527.2
35°	740.4	733.1	666.9	572.4	499.9	468.4	466.3	469.5	476.8	480.0	483.1
37.5°	780.3	776.1	676.4	549.3	462.1	427.4	421.1	419.0	423.2	422.2	426.4
40°	832.8	836.0	693.2	518.8	425.3	389.6	376.0	369.7	365.5	357.1	361.3
42.5°	909.5	911.6	712.1	484.2	393.8	353.9	336.1	324.5	316.1	302.5	304.6
45°	1021.9	1004.0	734.1	447.4	365.5	325.6	304.6	290.9	279.4	267.8	268.9
47.5°	1171.0	1116.4	758.3	416.9	337.1	302.5	283.6	267.8	254.2	244.7	245.8
50°	1354.8	1256.1	782.4	388.6	308.8	284.6	267.8	251.0	237.4	227.9	226.9
52.5°	1597.4	1424.1	798.2	357.1	280.4	268.9	254.2	238.4	221.6	210.0	209.0
55°	1849.5	1619.5	811.8	319.3	253.1	251.0	243.7	225.8	205.8	191.1	189.0
57.5°	2126.7	1828.5	822.3	282.5	232.1	236.3	234.2	213.2	191.1	177.5	176.4
60°	2378.8	2044.8	788.7	250.0	213.2	221.6	223.7	205.8	194.3	197.4	198.5
62.5°	2632.9	2211.8	660.6	225.8	200.6	212.1	230.0	229.0	223.7	229.0	230.0
65°	2724.3	2246.5	468.4	205.8	188.0	216.3	250.0	247.9	223.7	214.2	212.1
67.5°	2672.8	2143.5	315.1	190.1	178.5	221.6	271.0	247.9	215.3	202.7	198.5
70°	2428.1	1890.4	231.1	174.3	170.1	220.5	282.5	246.8	211.1	197.4	192.2
72.5°	1936.6	1458.8	185.9	159.6	157.5	215.3	288.8	244.7	206.9	192.2	185.9
75°	1254.0	907.4	156.5	144.9	138.6	206.9	285.7	238.4	201.6	182.7	178.5
77.5°	581.8	390.7	133.4	128.1	120.8	194.3	276.2	225.8	190.1	172.2	167.0
80°	271.0	184.8	112.4	111.3	108.2	183.8	263.6	211.1	176.4	161.7	153.3
82.5°	144.9	111.3	91.4	91.4	94.5	171.2	247.9	193.2	158.6	151.2	129.2
85°	76.7	64.1	66.2	71.4	80.9	151.2	226.9	174.3	138.6	115.5	112.4
87.5°	38.9	41.0	41.0	48.3	62.0	122.9	186.9	143.9	117.6	94.5	92.4
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)