

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: P231372

Luminaire Tested: **ARCH-M-AF48-150-D-U-T4W-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231372
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-150-D-U-T4W-7050-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 970mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13242 lumens
Efficiency: N/A
Efficacy: 87.7 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 - G3

Input Watts (W): 151
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

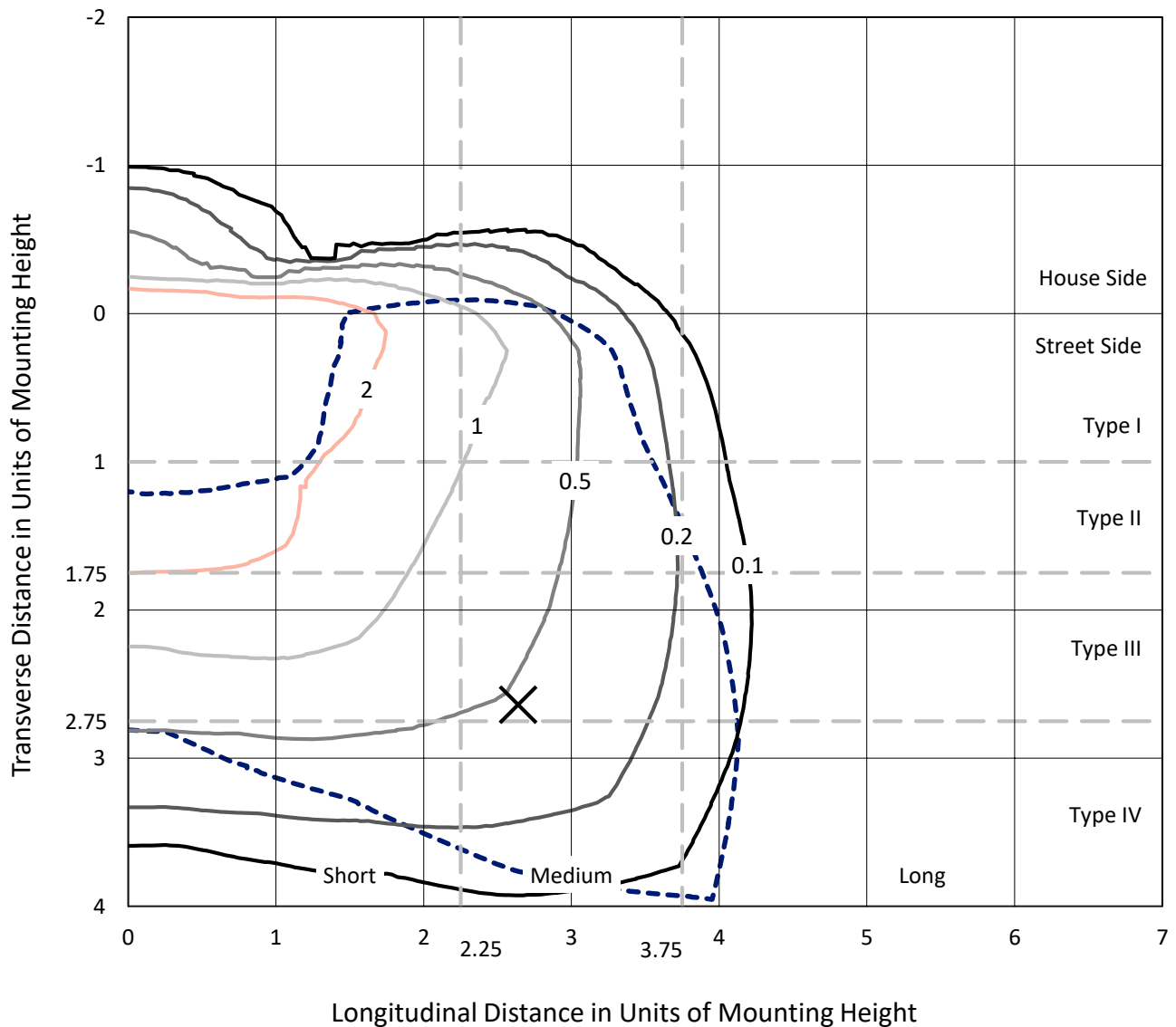


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

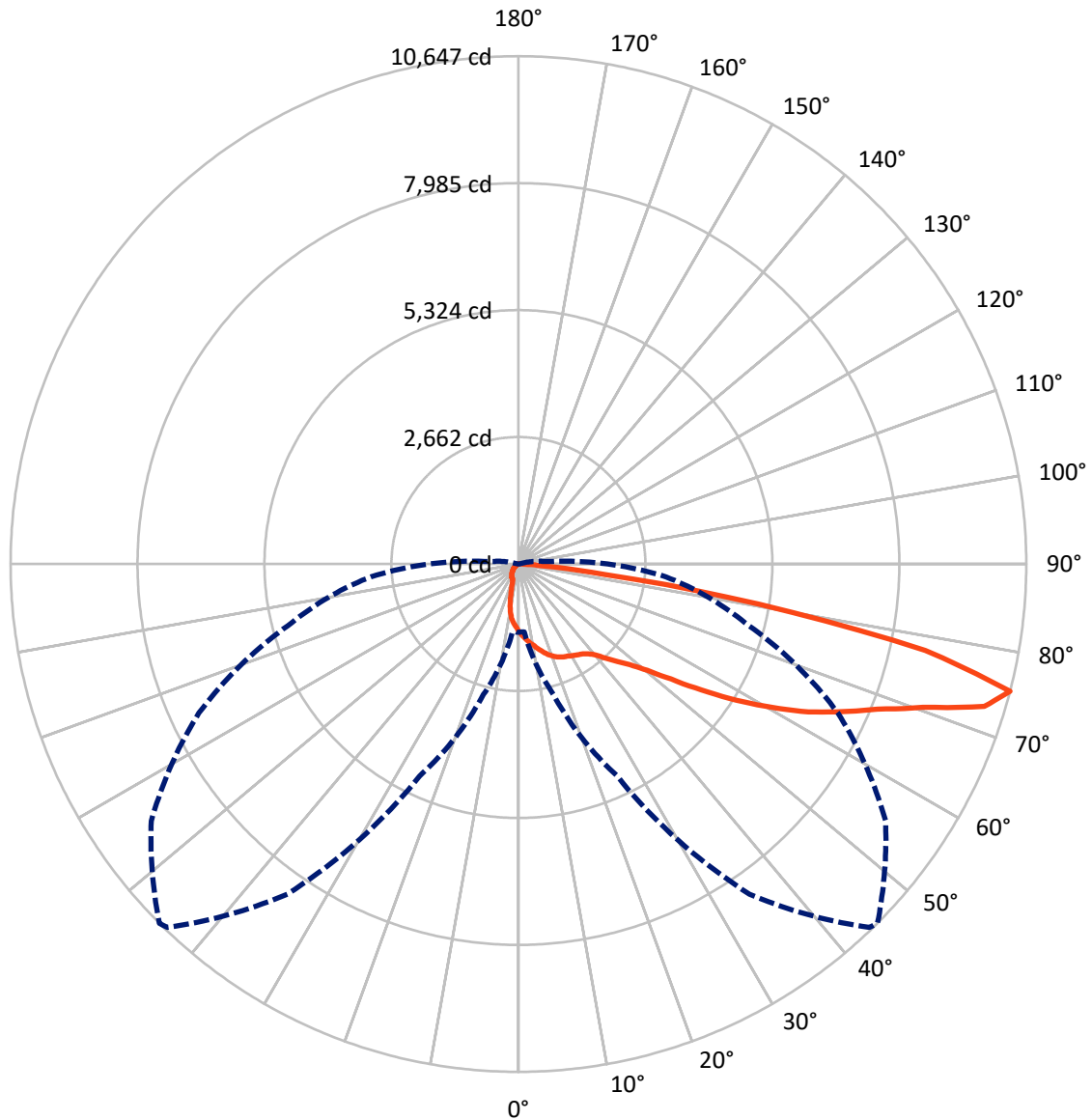


Based on 20 foot mounting height. Maximum calculated value = 4.7 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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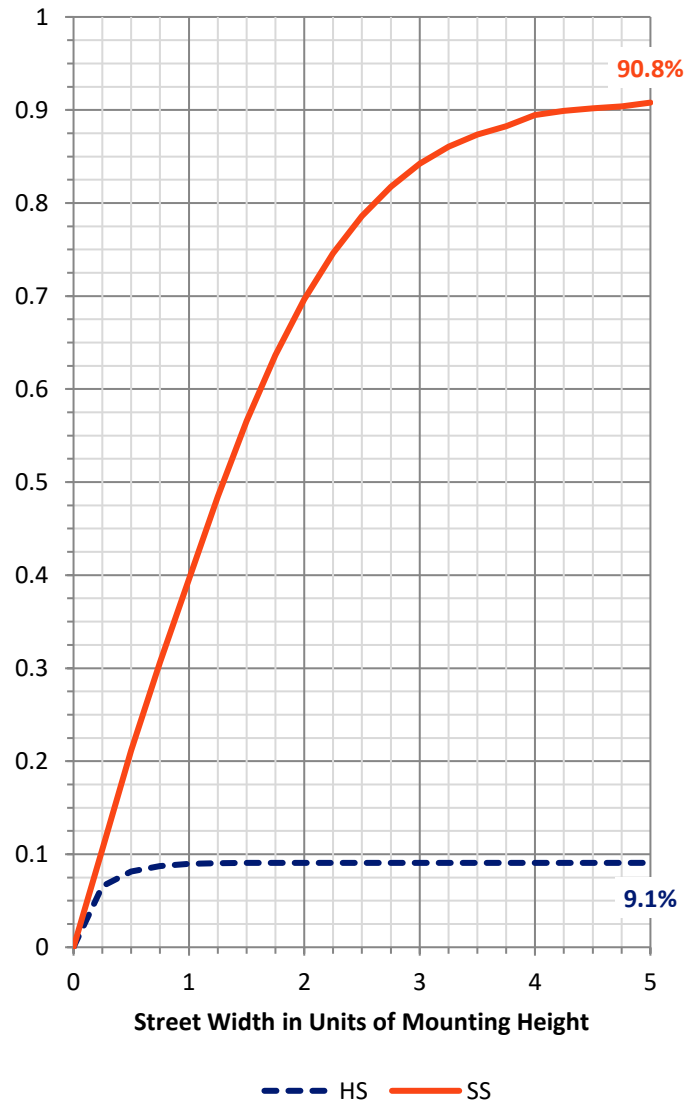
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1211.2	0.0	1211.2
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	12030.8	0.0	12030.8
	% Fixture	90.9	0.0	90.9
Total	Lumens	13242.0	0.0	13242.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.7	1.0
10°-20°	378.7	2.9
20°-30°	627.1	4.7
30°-40°	907.6	6.9
40°-50°	1486.2	11.2
50°-60°	2648.1	20.0
60°-70°	3893.1	29.4
70°-80°	2937.0	22.2
80°-90°	230.4	1.7
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°	13242.0	100.0
0°-180°	13242.0	100.0



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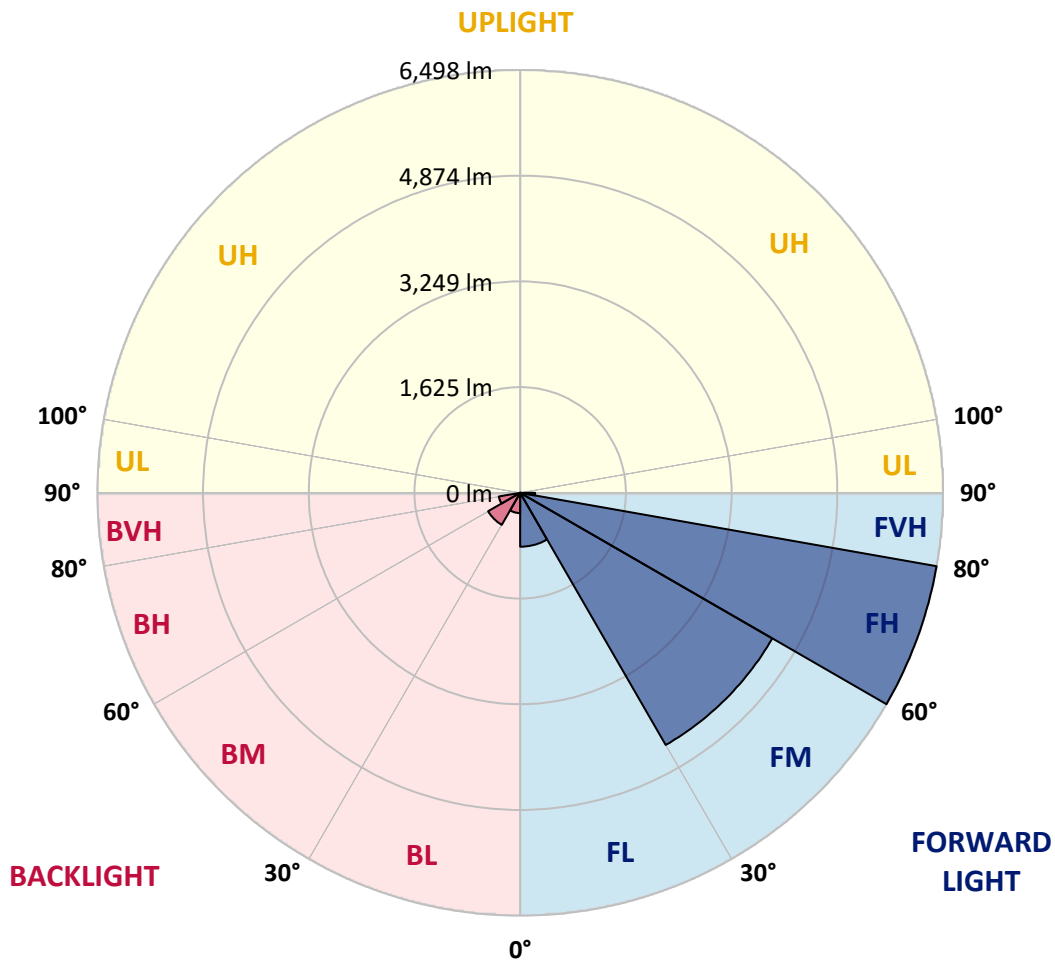
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	828.3	6.3			
FM	(30°-60°)	4474.4	33.8			
FH	(60°-80°)	6498.3	49.1			G3/7500
FVH	(80°-90°)	229.8	1.7			G3/500
BL	(0°-30°)	311.2	2.4	B1/500		
BM	(30°-60°)	567.6	4.3	B1/1000		
BH	(60°-80°)	331.8	2.5	B1/500		G1/500
BVH	(80°-90°)	0.6	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-G3

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	1416.3	1416.3	1416.3	1416.3	1416.3	1416.3	1416.3	1416.3	1416.3	1416.3	1416.3
2.5°	1538.5	1538.5	1535.4	1532.2	1516.6	1500.9	1497.8	1488.4	1460.2	1441.4	1422.6
5°	1667.0	1670.1	1663.8	1648.2	1613.7	1579.2	1576.1	1551.0	1497.8	1460.2	1419.4
7.5°	1789.2	1795.4	1779.8	1751.6	1710.8	1660.7	1657.6	1610.6	1541.6	1488.4	1428.8
10°	1892.6	1892.6	1870.6	1836.2	1792.3	1739.0	1732.8	1679.5	1601.2	1535.4	1457.0
12.5°	2005.4	2002.3	1970.9	1923.9	1873.8	1823.6	1820.5	1754.7	1679.5	1594.9	1497.8
15°	2108.8	2102.5	2061.8	2017.9	1964.7	1911.4	1908.2	1842.4	1764.1	1663.8	1557.3
17.5°	2165.2	2162.1	2124.5	2080.6	2036.7	1996.0	1992.9	1923.9	1839.3	1735.9	1616.8
20°	2174.6	2177.7	2146.4	2108.8	2083.7	2061.8	2061.8	1999.1	1908.2	1798.6	1679.5
22.5°	2177.7	2187.1	2165.2	2115.1	2108.8	2111.9	2118.2	2068.1	1974.1	1870.6	1745.3
25°	2199.7	2212.2	2196.5	2137.0	2130.7	2152.7	2158.9	2137.0	2052.4	1949.0	1820.5
27.5°	2243.5	2256.1	2243.5	2168.3	2158.9	2180.9	2187.1	2199.7	2137.0	2024.2	1898.8
30°	2331.3	2334.4	2306.2	2212.2	2193.4	2221.6	2231.0	2265.5	2215.3	2096.3	1974.1
32.5°	2484.8	2453.5	2368.9	2243.5	2227.9	2259.2	2268.6	2306.2	2287.4	2165.2	2052.4
35°	2798.1	2635.2	2440.9	2287.4	2271.7	2303.1	2315.6	2368.9	2378.3	2262.3	2149.5
37.5°	2795.0	2647.7	2610.1	2372.0	2350.1	2372.0	2387.7	2453.5	2491.1	2390.8	2290.5
40°	2992.4	2929.7	2929.7	2531.8	2459.7	2491.1	2506.7	2572.5	2638.3	2560.0	2456.6
42.5°	3612.8	3572.1	3528.2	2838.9	2613.3	2701.0	2710.4	2751.1	2829.5	2804.4	2682.2
45°	4305.3	4267.7	4098.5	3359.0	2876.5	2892.1	2914.1	2979.9	3092.7	3139.7	2995.5
47.5°	4847.4	4809.8	4665.7	3985.7	3287.0	3149.1	3149.1	3277.6	3453.0	3572.1	3434.2
50°	5282.9	5239.1	5151.3	4653.1	3960.6	3518.8	3500.0	3650.4	3910.5	4095.4	4001.4
52.5°	5705.9	5577.5	5524.2	5342.5	4722.1	4054.6	4004.5	4111.0	4471.4	4700.1	4621.8
55°	5988.0	5969.2	5912.8	5975.4	5521.1	4706.4	4662.5	4684.5	5135.7	5289.2	5192.1
57.5°	6251.2	6248.0	6373.4	6664.8	6392.2	5452.1	5383.2	5348.7	5778.0	5740.4	5825.0
60°	6577.0	6520.6	6812.0	7228.8	7191.2	6179.1	6100.8	6031.8	6270.0	6163.4	6583.3
62.5°	6592.7	6577.0	7169.3	7767.7	7983.9	6918.6	6827.7	6580.2	6699.2	6577.0	7307.1
65°	5994.2	6072.6	7319.7	8052.9	8648.2	7567.2	7457.5	7072.1	7081.5	7000.0	8159.4
67.5°	5859.5	5900.2	6906.0	8360.0	9127.6	8222.1	8118.7	7639.3	7526.5	7532.7	8663.9
70°	5524.2	5586.9	6392.2	8338.0	9506.8	9096.3	8992.9	8472.8	8200.1	7896.2	8275.3
72.5°	4220.7	4327.2	5386.3	7310.3	9403.4	10240.0	10211.8	9528.7	8469.6	7250.7	6260.6
75°	1428.8	1425.7	2829.5	4910.1	8447.7	10590.9	10647.3	9397.1	7388.6	5000.9	3108.3
77.5°	307.1	310.2	582.8	1989.7	5611.9	8504.1	8720.3	7087.8	4765.9	2227.9	711.3
80°	150.4	153.5	241.3	526.4	2243.5	4769.1	5107.5	3644.2	1761.0	444.9	119.1
82.5°	75.2	78.3	125.3	278.9	830.4	1695.2	1811.1	1341.1	504.5	250.7	59.5
85°	28.2	28.2	62.7	166.1	379.1	397.9	488.8	388.5	303.9	203.7	15.7
87.5°	6.3	6.3	34.5	81.5	169.2	125.3	125.3	119.1	184.9	137.9	6.3
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°	1416.3	1416.3	1416.3	1416.3	1416.3	1416.3	1416.3	1416.3	1416.3	1416.3	1416.3
2.5°	1413.2	1400.6	1378.7	1356.8	1341.1	1322.3	1312.9	1303.5	1300.4	1297.2	1303.5
5°	1397.5	1378.7	1338.0	1303.5	1272.2	1247.1	1228.3	1209.5	1200.1	1193.8	1197.0
7.5°	1397.5	1369.3	1309.8	1256.5	1206.4	1153.1	1099.8	1059.1	1027.8	1009.0	1012.1
10°	1413.2	1375.6	1297.2	1225.2	1131.2	1018.4	902.4	814.7	755.2	720.7	720.7
12.5°	1447.6	1397.5	1300.4	1187.6	1027.8	830.4	654.9	548.3	504.5	479.4	482.5
15°	1494.6	1435.1	1316.0	1137.4	883.6	617.3	457.5	388.5	388.5	394.8	397.9
17.5°	1547.9	1482.1	1328.6	1062.2	698.8	441.8	360.3	354.1	363.5	379.1	379.1
20°	1601.2	1529.1	1334.8	943.2	523.3	350.9	341.5	341.5	347.8	363.5	366.6
22.5°	1667.0	1588.6	1328.6	795.9	391.7	332.1	329.0	329.0	329.0	347.8	347.8
25°	1735.9	1657.6	1303.5	639.2	332.1	319.6	316.5	313.3	313.3	329.0	332.1
27.5°	1814.2	1729.6	1244.0	488.8	313.3	307.1	303.9	297.7	297.7	310.2	310.2
30°	1892.6	1811.1	1153.1	369.7	297.7	294.5	288.3	282.0	275.7	288.3	288.3
32.5°	1977.2	1895.7	1034.0	294.5	275.7	275.7	272.6	263.2	256.9	263.2	266.3
35°	2090.0	1992.9	899.3	256.9	247.5	247.5	247.5	244.4	231.9	238.1	238.1
37.5°	2240.4	2127.6	742.6	238.1	225.6	219.3	219.3	219.3	209.9	213.1	213.1
40°	2431.5	2284.3	592.2	222.5	209.9	194.3	188.0	191.1	184.9	184.9	181.7
42.5°	2691.6	2453.5	444.9	209.9	197.4	175.5	162.9	159.8	153.5	150.4	150.4
45°	3064.5	2660.3	319.6	197.4	188.0	153.5	141.0	131.6	115.9	106.5	106.5
47.5°	3547.0	2895.3	238.1	184.9	178.6	134.7	119.1	100.3	78.3	72.1	72.1
50°	4136.1	3158.5	200.5	166.1	162.9	119.1	94.0	65.8	43.9	37.6	40.7
52.5°	4709.5	3406.0	178.6	147.3	144.1	103.4	68.9	34.5	18.8	18.8	18.8
55°	5192.1	3581.5	162.9	131.6	125.3	81.5	37.6	15.7	9.4	9.4	9.4
57.5°	5627.6	3681.8	147.3	115.9	100.3	56.4	15.7	6.3	6.3	3.1	3.1
60°	6025.6	3741.3	128.5	100.3	78.3	31.3	6.3	3.1	3.1	0.0	0.0
62.5°	6417.2	3785.2	109.7	81.5	59.5	12.5	3.1	3.1	0.0	0.0	0.0
65°	6714.9	3769.5	87.7	65.8	37.6	6.3	3.1	0.0	0.0	0.0	0.0
67.5°	6705.5	3556.4	65.8	50.1	18.8	3.1	0.0	0.0	0.0	0.0	0.0
70°	5997.4	2995.5	43.9	31.3	6.3	3.1	0.0	0.0	0.0	0.0	0.0
72.5°	4255.2	1920.8	28.2	18.8	3.1	0.0	0.0	0.0	0.0	0.0	0.0
75°	1873.8	582.8	15.7	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	366.6	134.7	9.4	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	87.7	15.7	3.1	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	37.6	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	9.4	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.3	3.1	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)