

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: P214641

Luminaire Tested: **ARCH-AF16-50-D-U-T2R-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214641
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF16-50-D-U-T2R-7030-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 980mA LIGHT ENGINE WITH 16 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4479.6 lumens
Efficiency: N/A
Efficacy: 84.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B0 - U0 - G1

Input Watts (W): 53
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

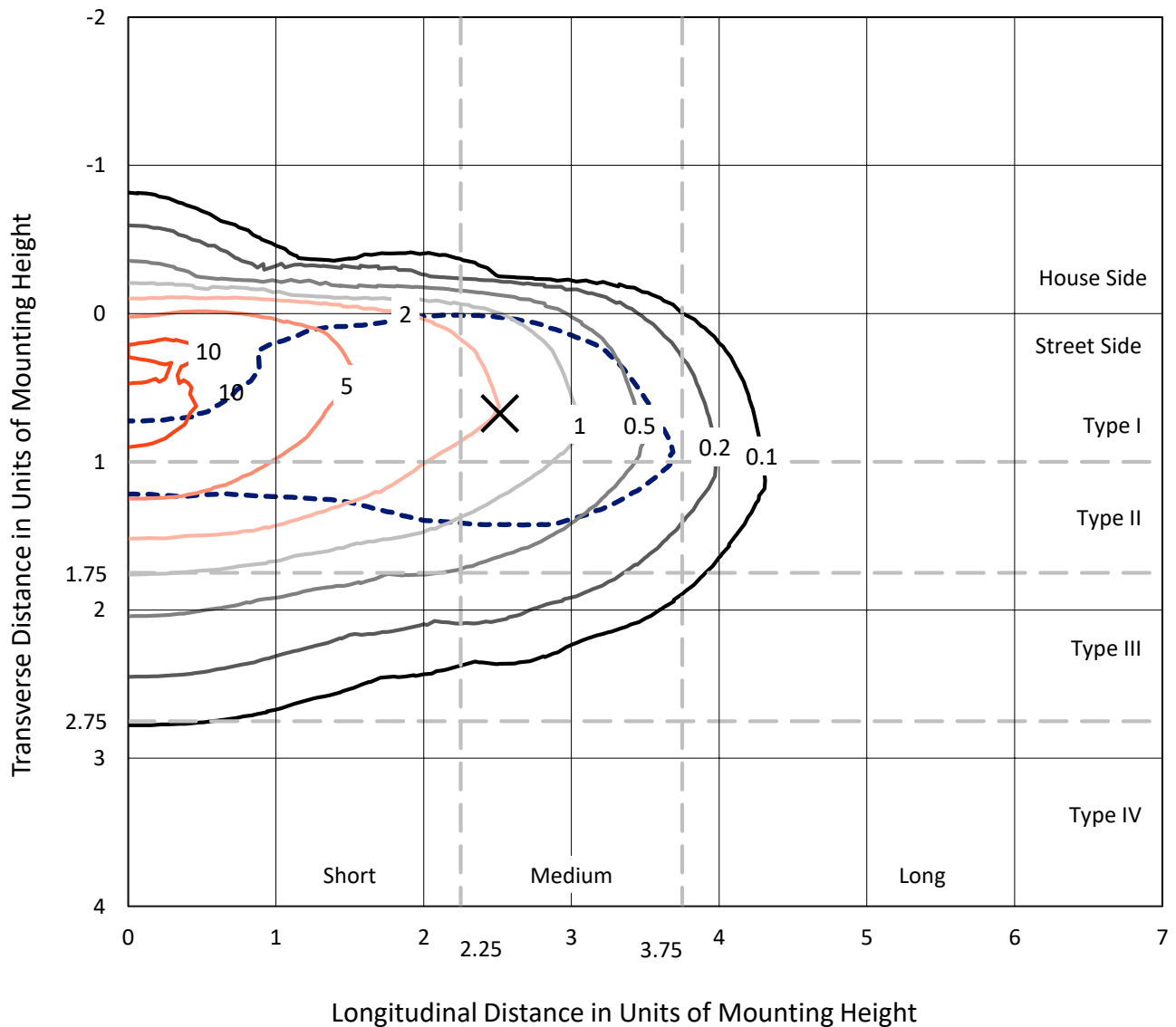


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

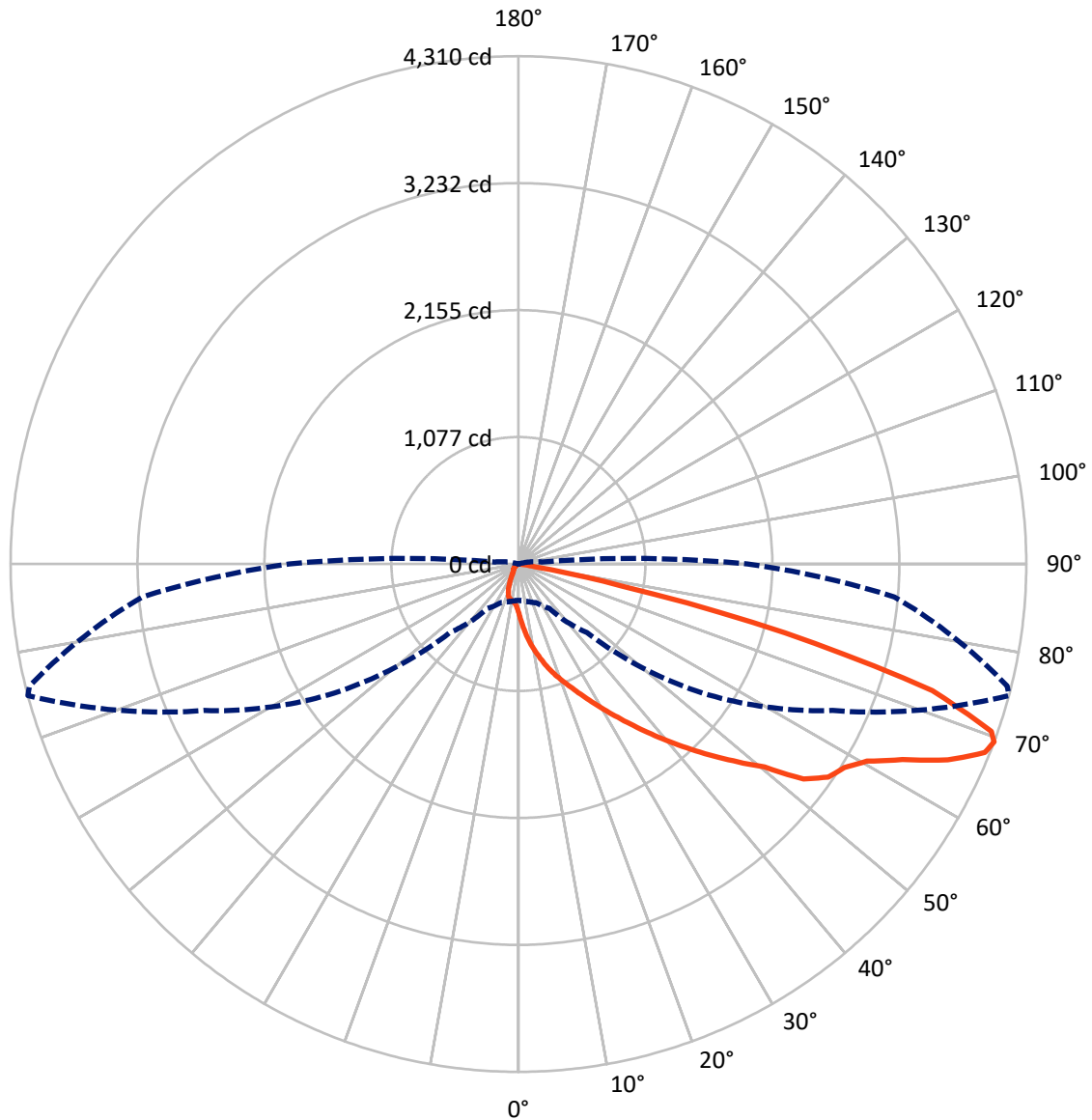


Based on 10 foot mounting height. Maximum calculated value = 11.4 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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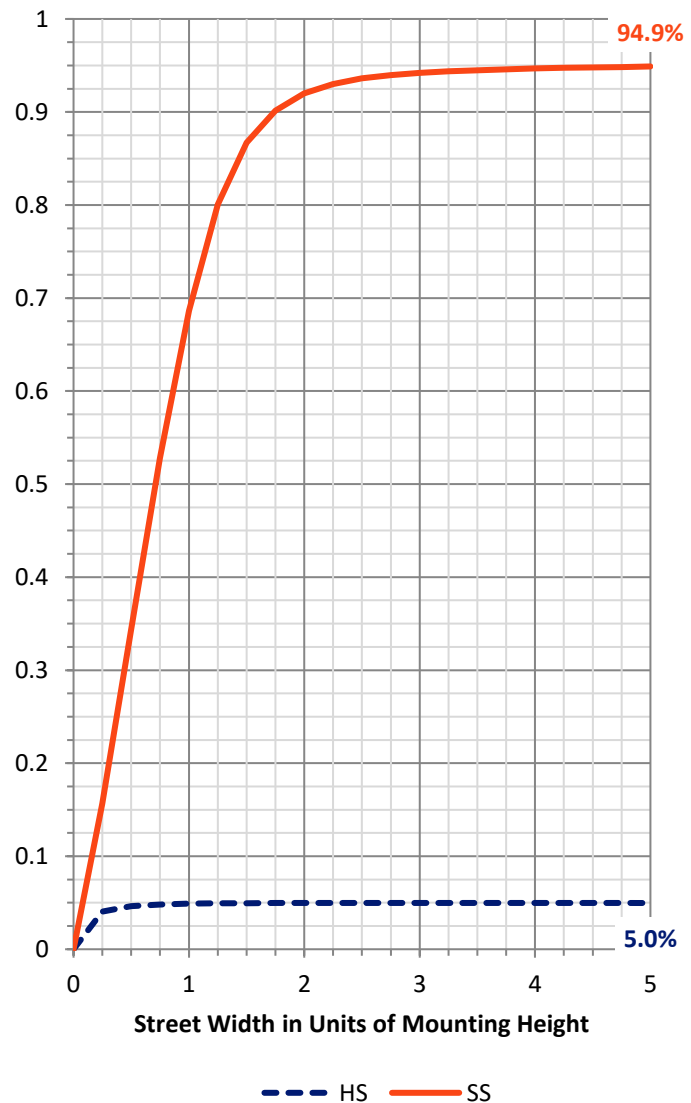
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	223.5	0.0	223.5
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	4256.1	0.0	4256.1
	% Fixture	95.0	0.0	95.0
Total	Lumens	4479.6	0.0	4479.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.6	1.1
10°-20°	173.8	3.9
20°-30°	331.7	7.4
30°-40°	595.1	13.3
40°-50°	911.7	20.4
50°-60°	1059.6	23.7
60°-70°	938.3	20.9
70°-80°	404.7	9.0
80°-90°	16.2	0.4
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°	4479.6	100.0
0°-180°	4479.6	100.0

Coefficient of Utilization



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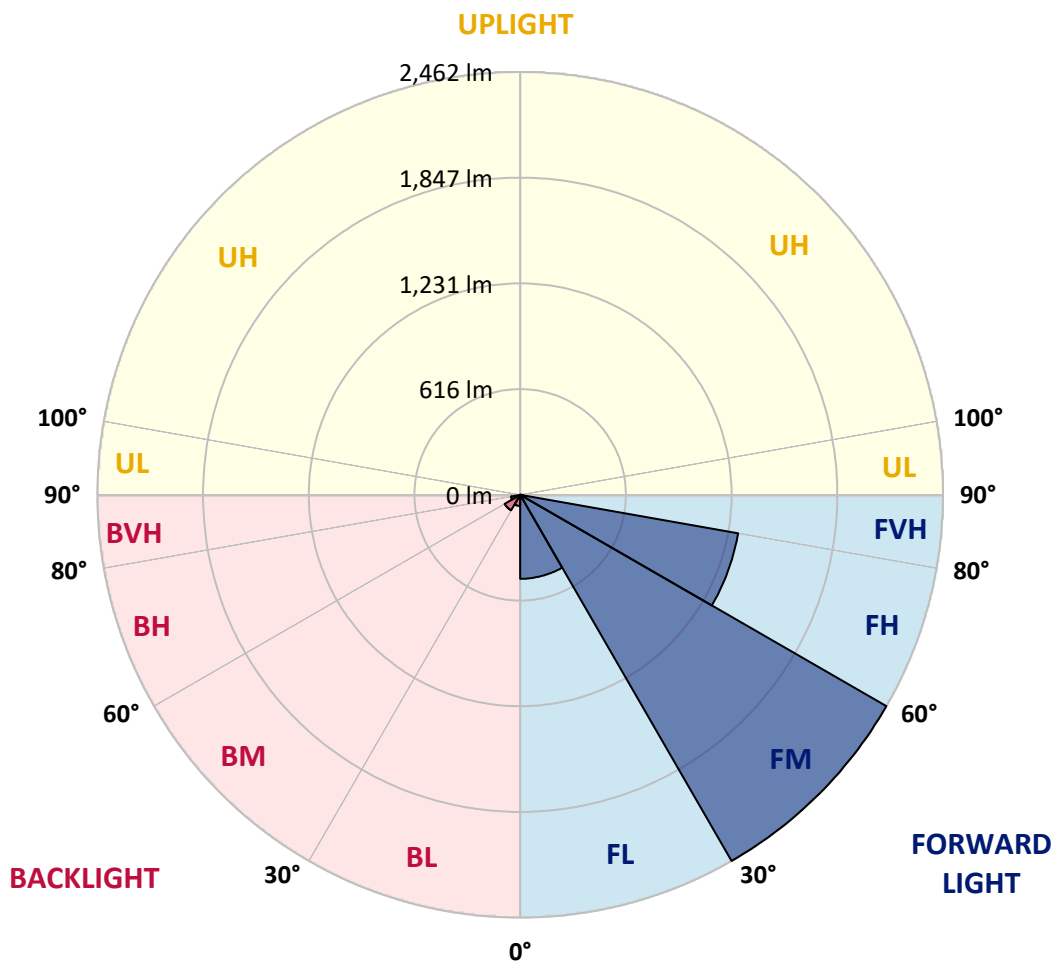
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	489.2	10.9			
FM	(30°-60°)	2462.1	55.0			
FH	(60°-80°)	1288.8	28.8			G1/1800
FVH	(80°-90°)	16.0	0.4			G1/100
BL	(0°-30°)	64.9	1.4	B0/110		
BM	(30°-60°)	104.2	2.3	B0/220		
BH	(60°-80°)	54.2	1.2	B0/110		G0/110
BVH	(80°-90°)	0.2	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	416.9	416.9	416.9	416.9	416.9	416.9	416.9	416.9	416.9	416.9	416.9
2.5°	686.7	679.9	673.1	665.4	648.0	618.0	580.2	539.6	489.4	480.6	440.0
5°	833.6	830.8	824.1	813.3	794.0	761.1	718.6	658.7	574.4	560.0	473.8
7.5°	937.1	935.1	929.4	916.8	899.4	866.5	822.0	757.2	659.6	643.1	516.5
10°	1030.0	1029.0	1024.2	1012.7	995.2	959.4	912.0	844.2	740.8	722.4	565.8
12.5°	1114.1	1115.1	1113.2	1107.4	1094.8	1060.9	1006.9	933.3	819.1	798.8	624.8
15°	1163.4	1166.4	1174.1	1185.7	1189.5	1162.5	1106.4	1025.2	899.4	882.0	692.4
17.5°	1147.0	1150.0	1174.1	1213.8	1251.4	1255.3	1205.0	1112.1	978.8	961.3	759.2
20°	1107.4	1111.1	1136.4	1190.5	1264.0	1315.3	1294.9	1207.0	1054.2	1032.8	823.0
22.5°	1151.8	1151.8	1159.6	1192.4	1259.2	1339.4	1366.5	1301.8	1131.5	1105.3	886.8
25°	1304.7	1301.8	1285.3	1271.8	1293.1	1364.6	1420.7	1398.4	1222.4	1192.4	954.6
27.5°	1498.1	1511.6	1480.7	1431.3	1383.0	1414.0	1469.1	1494.2	1323.0	1292.1	1024.2
30°	1714.8	1720.5	1683.8	1618.0	1532.9	1502.9	1526.2	1576.4	1432.3	1398.4	1096.8
32.5°	1910.1	1905.3	1874.3	1805.6	1700.2	1635.4	1599.7	1642.1	1551.3	1512.5	1171.1
35°	2083.1	2087.1	2049.3	1970.1	1866.5	1797.9	1712.7	1716.7	1684.7	1640.2	1257.2
37.5°	2238.8	2232.0	2196.3	2117.0	2023.3	1948.7	1858.8	1794.0	1830.7	1784.3	1353.9
40°	2365.6	2358.8	2321.1	2243.7	2155.6	2094.8	2024.1	1897.5	1984.4	1931.3	1457.4
42.5°	2466.2	2458.5	2426.5	2352.1	2266.9	2212.7	2178.9	2025.1	2148.9	2095.7	1573.6
45°	2515.4	2508.7	2489.4	2433.3	2358.8	2311.4	2327.9	2172.2	2324.9	2280.5	1701.1
47.5°	2457.5	2454.5	2476.8	2467.1	2424.6	2399.5	2456.4	2332.6	2509.6	2466.2	1848.1
50°	2281.5	2286.2	2351.0	2431.3	2451.7	2481.6	2561.9	2501.9	2707.9	2661.5	2017.4
52.5°	1847.2	1880.1	2075.5	2268.9	2418.8	2531.9	2685.7	2743.7	3031.0	2985.5	2281.5
55°	1379.1	1392.6	1605.4	1936.2	2286.2	2528.0	2777.6	2885.9	3190.5	3144.2	2351.0
57.5°	1093.8	1098.6	1204.0	1541.5	2013.5	2441.0	2825.9	2937.1	3260.2	3221.5	2454.5
60°	858.8	864.6	941.0	1173.1	1629.6	2206.0	2756.3	2981.5	3396.6	3365.6	2635.5
62.5°	668.2	674.1	720.4	856.9	1222.4	1844.3	2616.1	3053.1	3655.7	3641.2	2931.3
65°	517.5	519.3	551.2	615.1	863.5	1452.6	2444.9	3119.9	4005.8	3993.2	3171.1
67.5°	382.0	384.9	407.2	446.8	583.2	1043.5	2164.4	3068.6	4269.9	4233.0	3258.2
69°	308.5	311.4	330.7	362.6	460.3	822.0	1908.1	2942.1	4309.5	4274.7	3203.1
70°	264.0	265.9	285.2	312.4	392.7	698.2	1705.0	2832.6	4257.3	4223.4	3077.4
72.5°	169.3	178.9	198.3	215.7	260.1	462.2	1150.8	2349.2	3673.1	3615.1	2410.0
75°	93.9	96.7	131.5	152.9	173.0	300.8	640.3	1465.1	2336.5	2296.0	1289.1
77.5°	77.3	79.3	92.9	116.1	116.1	168.3	241.8	577.3	888.9	801.8	349.1
80°	54.2	56.0	70.6	76.4	83.1	94.7	78.3	126.7	137.3	121.9	52.2
82.5°	37.7	39.7	48.4	62.9	66.7	44.5	29.1	37.7	39.7	39.7	20.3
85°	6.8	9.8	35.8	52.2	39.7	13.5	16.4	13.5	12.6	13.5	4.8
87.5°	0.0	0.0	22.3	25.1	21.3	5.8	6.8	4.8	2.9	3.9	1.9
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°	416.9	416.9	416.9	416.9	416.9	416.9	416.9	416.9	416.9	416.9	416.9
2.5°	419.8	399.5	364.6	339.5	318.2	301.8	295.0	284.3	276.7	280.5	275.7
5°	431.3	395.5	339.5	303.6	278.5	257.3	239.9	226.2	215.7	213.7	211.8
7.5°	449.7	398.5	324.9	280.5	242.8	209.9	182.8	162.5	147.0	147.0	141.2
10°	474.8	406.2	316.2	257.3	201.1	156.7	129.6	110.3	102.4	101.5	99.7
12.5°	509.7	420.6	309.5	227.3	156.7	114.0	97.7	90.9	88.0	87.1	86.1
15°	557.1	442.0	301.8	190.5	119.0	93.9	87.1	81.3	78.3	77.3	76.4
17.5°	602.6	461.3	285.2	152.9	96.7	85.1	77.3	72.5	68.7	67.7	67.7
20°	645.0	477.8	257.3	119.0	87.1	76.4	68.7	62.9	59.0	58.0	58.0
22.5°	689.5	491.3	222.5	96.7	79.3	67.7	60.0	54.2	50.3	49.2	48.4
25°	737.0	501.0	182.8	86.1	71.6	60.0	51.3	46.4	43.4	42.5	41.6
27.5°	788.2	504.9	145.1	78.3	62.9	52.2	44.5	39.7	37.7	36.7	36.7
30°	834.6	501.0	112.2	69.6	55.1	45.5	38.7	34.9	32.9	31.9	31.9
32.5°	883.1	491.3	89.9	62.0	48.4	38.7	32.9	29.9	29.1	28.1	28.1
35°	934.2	478.8	77.3	55.1	41.6	33.9	29.1	27.1	26.1	25.1	25.1
37.5°	994.1	463.3	70.6	49.2	36.7	29.9	25.1	24.1	23.2	23.2	23.2
40°	1061.9	443.9	65.8	44.5	32.9	26.1	22.3	21.3	20.3	20.3	20.3
42.5°	1133.4	421.6	60.9	39.7	29.1	22.3	19.3	19.3	18.3	18.3	17.4
45°	1213.8	399.5	56.0	34.9	25.1	19.3	16.4	15.6	15.6	14.5	14.5
47.5°	1308.5	379.1	51.3	30.9	22.3	16.4	14.5	13.5	12.6	11.6	11.6
50°	1442.0	377.2	45.5	27.1	20.3	13.5	11.6	10.6	9.8	8.7	8.7
52.5°	1574.4	359.8	38.7	22.3	16.4	11.6	8.7	7.7	6.8	6.8	5.8
55°	1604.5	330.7	33.9	19.3	12.6	8.7	6.8	4.8	4.8	3.9	3.9
57.5°	1670.2	317.2	29.1	15.6	9.8	6.8	3.9	2.9	2.9	2.9	2.9
60°	1799.8	313.3	25.1	13.5	6.8	4.8	2.9	1.9	1.9	1.0	1.0
62.5°	1978.6	309.5	21.3	11.6	4.8	2.9	1.9	1.0	0.0	0.0	0.0
65°	2077.3	283.4	17.4	8.7	3.9	2.9	1.0	0.0	0.0	0.0	0.0
67.5°	2051.3	234.1	15.6	5.8	2.9	1.9	1.0	0.0	0.0	0.0	0.0
69°	1942.0	197.3	12.6	4.8	2.9	1.9	1.0	0.0	0.0	0.0	0.0
70°	1810.4	170.2	11.6	3.9	1.9	1.0	1.0	0.0	0.0	0.0	0.0
72.5°	1285.3	88.9	7.7	2.9	1.9	1.0	0.0	0.0	0.0	0.0	0.0
75°	600.6	39.7	4.8	1.9	1.0	1.0	0.0	0.0	0.0	0.0	0.0
77.5°	132.5	18.3	2.9	1.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	25.1	6.8	1.9	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	8.7	2.9	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.0	0.0	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)