

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: P214595

Luminaire Tested: **ARCH-AF24-100-D-U-T2R**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214595
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF24-100-D-U-T2R
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 1200mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10200.9 lumens
Efficiency: N/A
Efficacy: 106.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 96
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

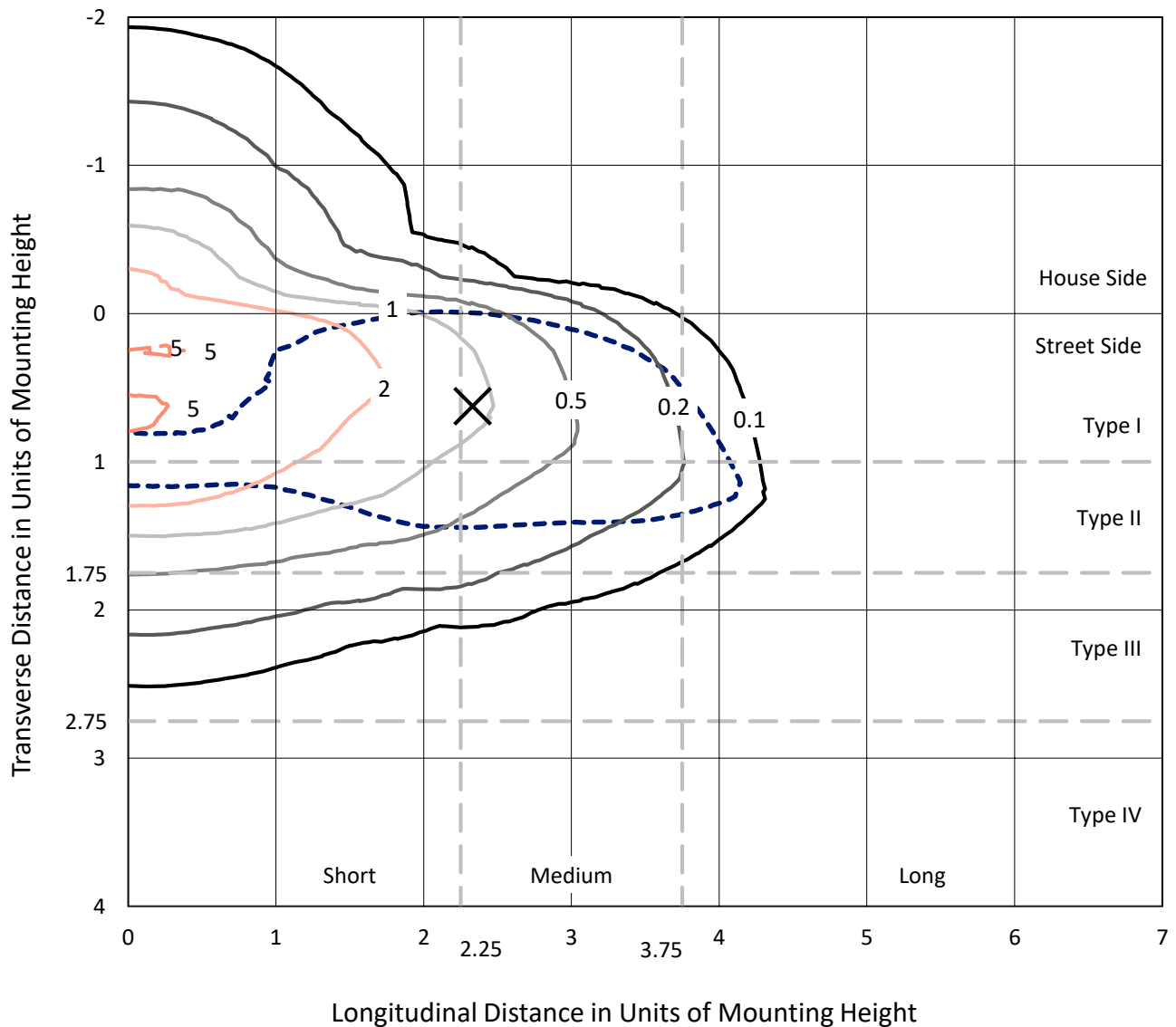


REPORT NUMBER: P214595

CATALOG NUMBER: ARCH-AF24-100-D-U-T2R

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

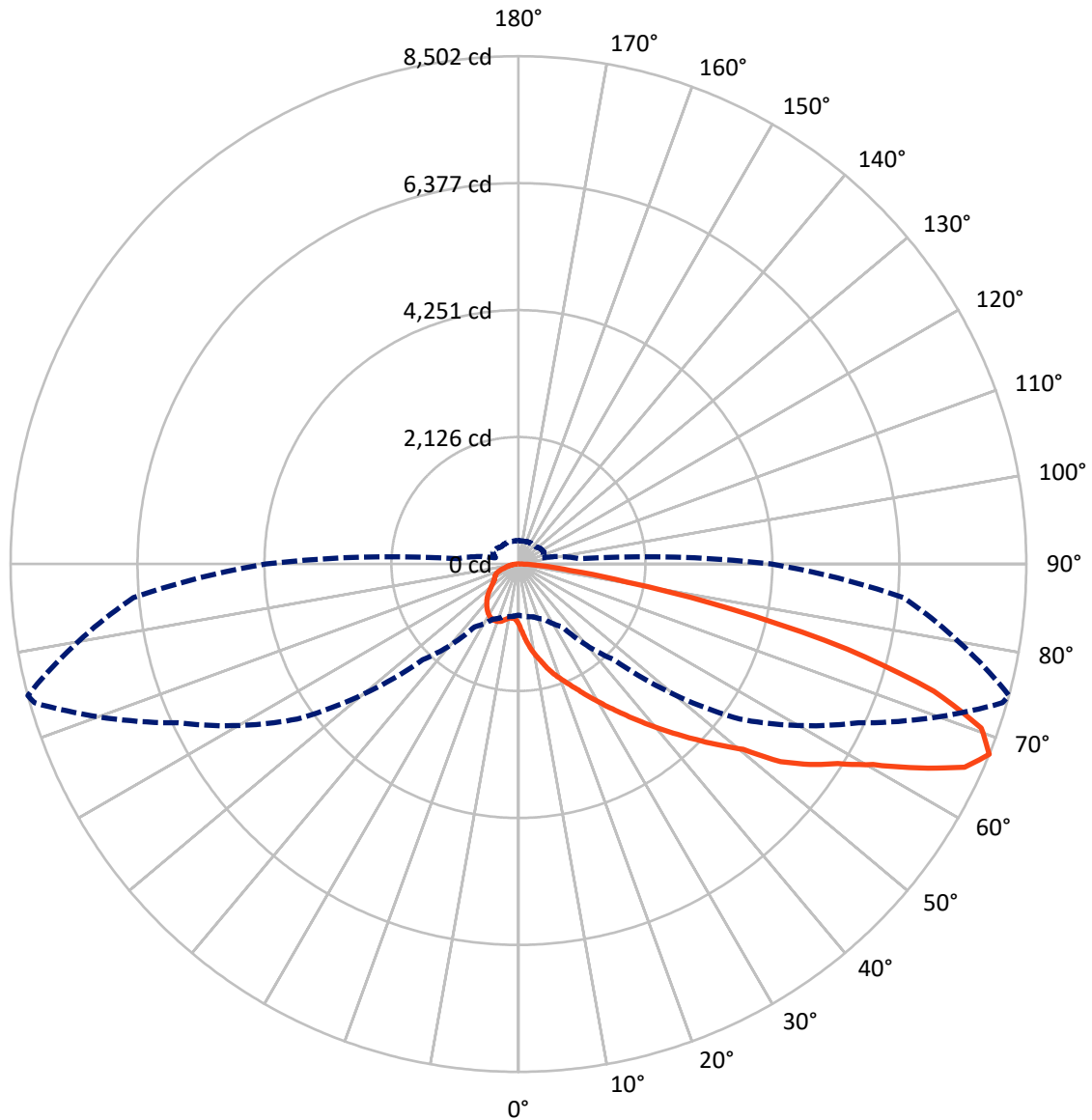


Based on 20 foot mounting height. Maximum calculated value = 5.3 fc
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P214595

CATALOG NUMBER: ARCH-AF24-100-D-U-T2R

Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P214595

CATALOG NUMBER: ARCH-AF24-100-D-U-T2R

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1741.9	0.0	1741.9
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	8458.9	0.0	8458.9
	% Fixture	82.9	0.0	82.9
Total	Lumens	10200.9	0.0	10200.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.7	1.2
10°-20°	429.1	4.2
20°-30°	782.7	7.7
30°-40°	1284.8	12.6
40°-50°	1858.0	18.2
50°-60°	2189.6	21.5
60°-70°	2127.8	20.9
70°-80°	1182.7	11.6
80°-90°	227.4	2.2
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°	10200.9	100.0
0°-180°	10200.9	100.0



REPORT NUMBER: P214595

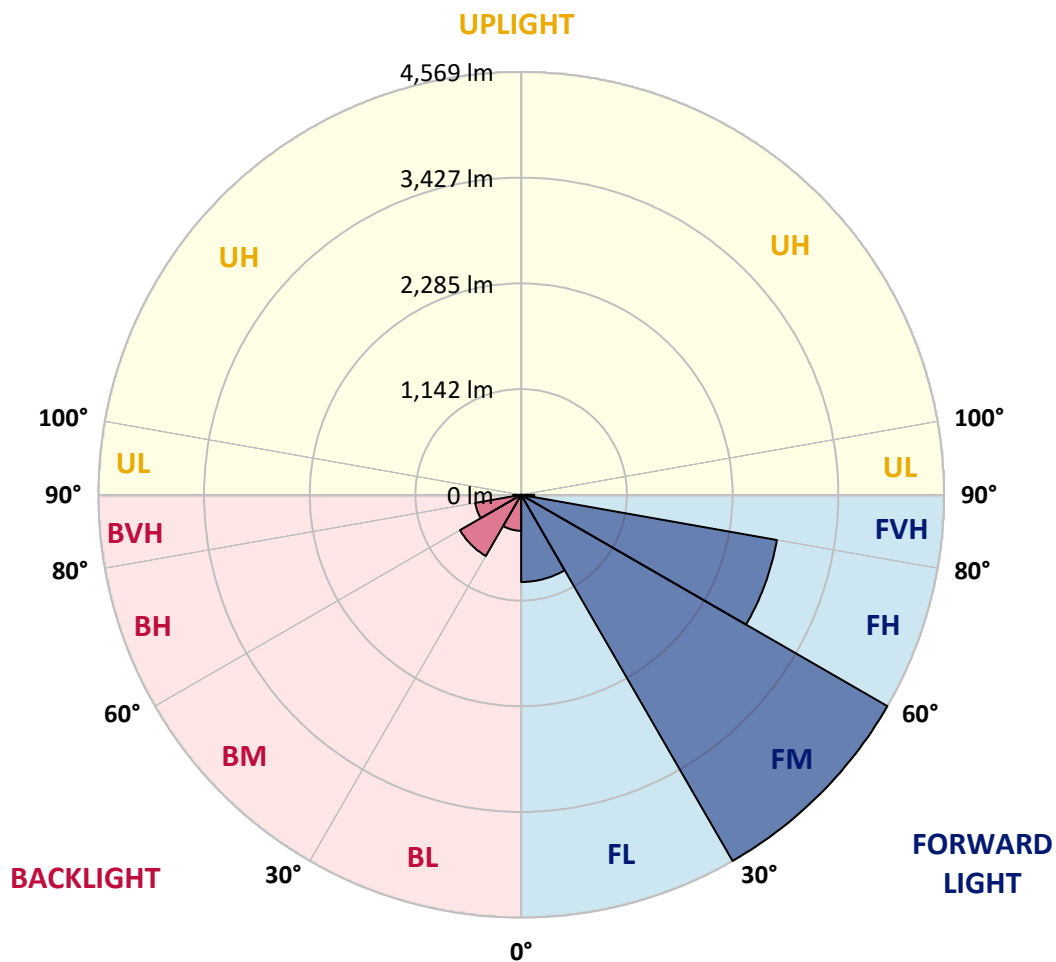
CATALOG NUMBER: ARCH-AF24-100-D-U-T2R

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	941.8	9.2			
FM	(30°-60°)	4569.4	44.8			
FH	(60°-80°)	2806.1	27.5			G2/5000
FVH	(80°-90°)	141.5	1.4			G2/225
BL	(0°-30°)	388.8	3.8	B1/500		
BM	(30°-60°)	762.9	7.5	B1/1000		
BH	(60°-80°)	504.4	4.9	B2/1000		G2/1000
BVH	(80°-90°)	85.9	0.8			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium





REPORT NUMBER: P214595

CATALOG NUMBER: ARCH-AF24-100-D-U-T2R

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8
2.5°	1433.1	1437.3	1428.8	1409.6	1381.9	1330.7	1285.8	1207.0	1136.6	1128.1	1053.4
5°	1684.7	1688.9	1678.3	1654.8	1625.0	1569.5	1507.7	1405.3	1292.3	1271.0	1113.2
7.5°	1857.4	1859.5	1846.7	1823.3	1799.9	1744.3	1682.5	1567.4	1428.8	1411.7	1189.9
10°	2004.6	2008.8	1991.8	1976.9	1951.3	1895.8	1831.8	1710.3	1567.4	1543.9	1268.9
12.5°	2141.0	2145.3	2134.6	2121.8	2113.3	2062.2	1991.8	1846.7	1693.2	1667.6	1362.7
15°	2232.7	2237.0	2239.1	2256.2	2266.9	2230.6	2160.3	2002.4	1829.6	1806.2	1473.6
17.5°	2207.1	2217.8	2249.8	2311.7	2377.7	2379.9	2322.3	2156.0	1964.1	1938.5	1586.6
20°	2132.5	2141.0	2179.4	2273.2	2403.3	2478.0	2473.7	2311.7	2089.9	2062.2	1691.0
22.5°	2194.3	2205.0	2205.0	2262.6	2390.5	2529.1	2584.6	2465.2	2215.7	2190.0	1795.6
25°	2458.8	2465.2	2420.4	2397.0	2443.8	2571.8	2676.2	2631.5	2369.3	2339.4	1908.6
27.5°	2827.7	2817.0	2761.6	2667.8	2616.6	2650.7	2757.4	2789.3	2546.2	2509.9	2025.9
30°	3194.5	3188.1	3124.1	2998.3	2883.2	2810.7	2846.9	2930.0	2738.1	2695.5	2138.9
32.5°	3537.8	3527.1	3456.8	3309.7	3179.5	3045.2	2974.8	3058.0	2942.8	2893.8	2264.7
35°	3853.5	3825.7	3755.4	3601.8	3467.5	3339.5	3166.7	3179.5	3164.6	3113.5	2403.3
37.5°	4109.3	4088.0	4011.2	3868.4	3725.5	3604.0	3422.7	3318.1	3403.5	3354.5	2563.3
40°	4335.4	4311.9	4233.0	4090.2	3957.9	3842.8	3699.9	3486.6	3672.2	3616.7	2742.4
42.5°	4506.0	4488.9	4425.0	4284.2	4156.2	4051.7	3981.4	3699.9	3951.6	3898.3	2938.6
45°	4597.7	4580.6	4546.5	4433.5	4316.1	4235.1	4241.6	3953.7	4243.7	4198.9	3171.0
47.5°	4484.6	4497.4	4527.3	4506.0	4433.5	4395.1	4474.0	4216.0	4569.9	4527.3	3422.7
50°	4181.8	4194.6	4314.1	4461.2	4486.8	4533.7	4683.0	4518.8	4915.4	4881.3	3734.0
52.5°	3437.6	3508.0	3838.5	4190.4	4431.3	4625.4	4915.4	4968.8	5497.5	5497.5	4284.2
55°	2597.4	2659.3	3036.7	3650.8	4216.0	4634.0	5086.0	5273.7	5917.7	5926.3	4572.1
57.5°	2104.8	2143.2	2328.6	2957.8	3763.8	4527.3	5288.6	5536.0	6267.4	6305.8	4943.1
60°	1708.1	1729.5	1851.0	2288.1	3139.0	4239.4	5433.6	5911.3	6766.4	6819.7	5416.5
62.5°	1373.3	1394.7	1475.7	1738.0	2463.1	3699.9	5408.0	6301.6	7431.7	7519.2	6037.1
65°	1096.1	1119.5	1172.9	1335.0	1825.5	3030.3	5145.7	6502.0	8120.6	8205.9	6448.7
67.5°	855.1	876.5	912.7	1019.4	1285.8	2266.9	4525.1	6290.8	8429.7	8502.3	6470.0
70°	646.2	656.8	686.7	754.9	919.1	1505.6	3542.1	5582.9	8152.5	8218.7	6043.5
72.5°	501.1	499.0	516.1	550.1	641.9	1036.4	2347.9	4540.1	7207.8	7276.0	5156.4
75°	409.5	407.3	418.0	428.6	464.9	695.2	1386.1	3418.4	5817.4	5687.4	3868.4
77.5°	345.5	343.3	354.0	356.1	371.0	479.8	789.0	2249.8	3881.2	3657.3	2179.4
80°	292.2	290.0	302.8	307.1	317.7	351.9	454.2	1217.6	1949.1	1846.7	1040.6
82.5°	219.6	228.2	251.6	262.3	275.1	260.1	281.5	537.4	904.2	863.7	452.0
85°	106.6	125.8	189.8	211.1	226.1	164.2	191.9	253.8	407.3	388.1	183.4
87.5°	36.2	32.0	113.0	134.3	147.1	74.7	106.6	140.8	168.5	153.5	57.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P214595

CATALOG NUMBER: ARCH-AF24-100-D-U-T2R

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8
2.5°	1021.5	989.5	942.5	906.3	882.8	863.7	855.1	853.0	848.7	846.6	846.6
5°	1042.8	985.2	912.7	874.3	863.7	855.1	859.4	861.5	861.5	861.5	861.5
7.5°	1074.8	993.8	906.3	880.8	878.6	878.6	891.4	897.7	902.0	902.0	902.0
10°	1117.5	1008.6	917.0	895.7	902.0	906.3	921.3	929.8	934.1	936.2	938.3
12.5°	1175.0	1040.6	938.3	921.3	929.8	931.9	942.5	946.8	951.1	953.2	953.2
15°	1251.8	1087.6	972.4	951.1	953.2	951.1	951.1	946.8	944.7	944.7	949.0
17.5°	1330.7	1132.4	1002.3	972.4	963.9	946.8	934.1	923.4	917.0	912.7	914.8
20°	1409.6	1172.9	1019.4	976.7	953.2	925.5	902.0	887.1	878.6	870.0	874.3
22.5°	1488.5	1211.3	1025.7	963.9	929.8	889.3	863.7	840.3	821.0	808.2	810.4
25°	1576.0	1253.9	1025.7	949.0	897.7	855.1	823.2	784.8	757.1	746.3	750.6
27.5°	1663.3	1290.1	1015.1	921.3	861.5	818.9	771.9	727.2	710.1	703.7	705.8
30°	1750.8	1317.9	991.6	887.1	823.2	776.2	714.4	684.6	663.2	646.2	648.2
32.5°	1838.2	1337.1	959.6	844.4	782.7	722.9	671.8	637.6	599.2	577.9	580.0
35°	1938.5	1352.0	921.3	801.8	737.9	676.0	637.6	582.2	541.7	524.6	520.4
37.5°	2042.9	1362.7	880.8	754.9	693.0	641.9	603.5	535.2	496.8	473.4	471.3
40°	2156.0	1367.0	831.7	705.8	650.4	620.5	558.7	507.5	441.4	426.5	426.5
42.5°	2290.3	1364.8	782.7	656.8	603.5	571.5	526.7	503.3	445.7	430.8	422.3
45°	2443.8	1364.8	729.4	599.2	556.6	509.6	490.5	475.6	437.2	443.6	447.8
47.5°	2618.8	1360.5	665.3	552.3	518.2	477.7	467.0	435.1	420.1	424.3	428.6
50°	2859.7	1367.0	607.7	513.9	490.5	456.3	443.6	426.5	420.1	422.3	420.1
52.5°	3194.5	1345.6	552.3	490.5	469.1	424.3	424.3	422.3	424.3	422.3	422.3
55°	3377.9	1298.7	511.8	477.7	454.2	409.5	418.0	422.3	426.5	424.3	424.3
57.5°	3638.0	1266.7	479.8	469.1	445.7	405.2	413.7	422.3	424.3	422.3	422.3
60°	3945.1	1245.3	458.5	471.3	439.3	405.2	415.8	422.3	420.1	418.0	418.0
62.5°	4301.3	1236.8	443.6	477.7	432.9	407.3	415.8	422.3	413.7	411.5	411.5
65°	4435.6	1160.1	424.3	481.9	437.2	407.3	413.7	415.8	405.2	403.0	400.9
67.5°	4228.8	1027.9	396.6	473.4	450.0	407.3	407.3	405.2	392.4	390.3	386.0
70°	3766.0	853.0	354.0	445.7	458.5	409.5	398.7	388.1	375.3	375.3	366.8
72.5°	3083.6	671.8	298.6	396.6	452.0	415.8	381.8	366.8	351.9	351.9	343.3
75°	2222.1	501.1	238.9	330.5	424.3	413.7	360.4	341.2	324.2	322.0	311.4
77.5°	1266.7	351.9	194.1	258.0	377.5	403.0	341.2	311.4	292.2	285.7	279.4
80°	650.4	236.7	157.8	202.5	313.4	373.2	326.3	277.2	255.9	245.2	234.6
82.5°	309.2	157.8	121.5	149.2	236.7	326.3	307.1	238.9	215.4	202.5	189.8
85°	138.6	93.8	81.0	96.0	168.5	253.8	270.9	196.2	168.5	211.1	155.7
87.5°	44.8	42.7	42.7	44.8	81.0	110.9	198.4	145.1	134.3	110.9	93.8
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)