

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: P234750

Luminaire Tested: **ARCH-AF24-90-D-U-T4W-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234750
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-AF24-90-D-U-T4W-8027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 1180mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7579 lumens
Efficiency: N/A
Efficacy: 80.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 94
Input Voltage (V): NR
Input Current (A_{in}): 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

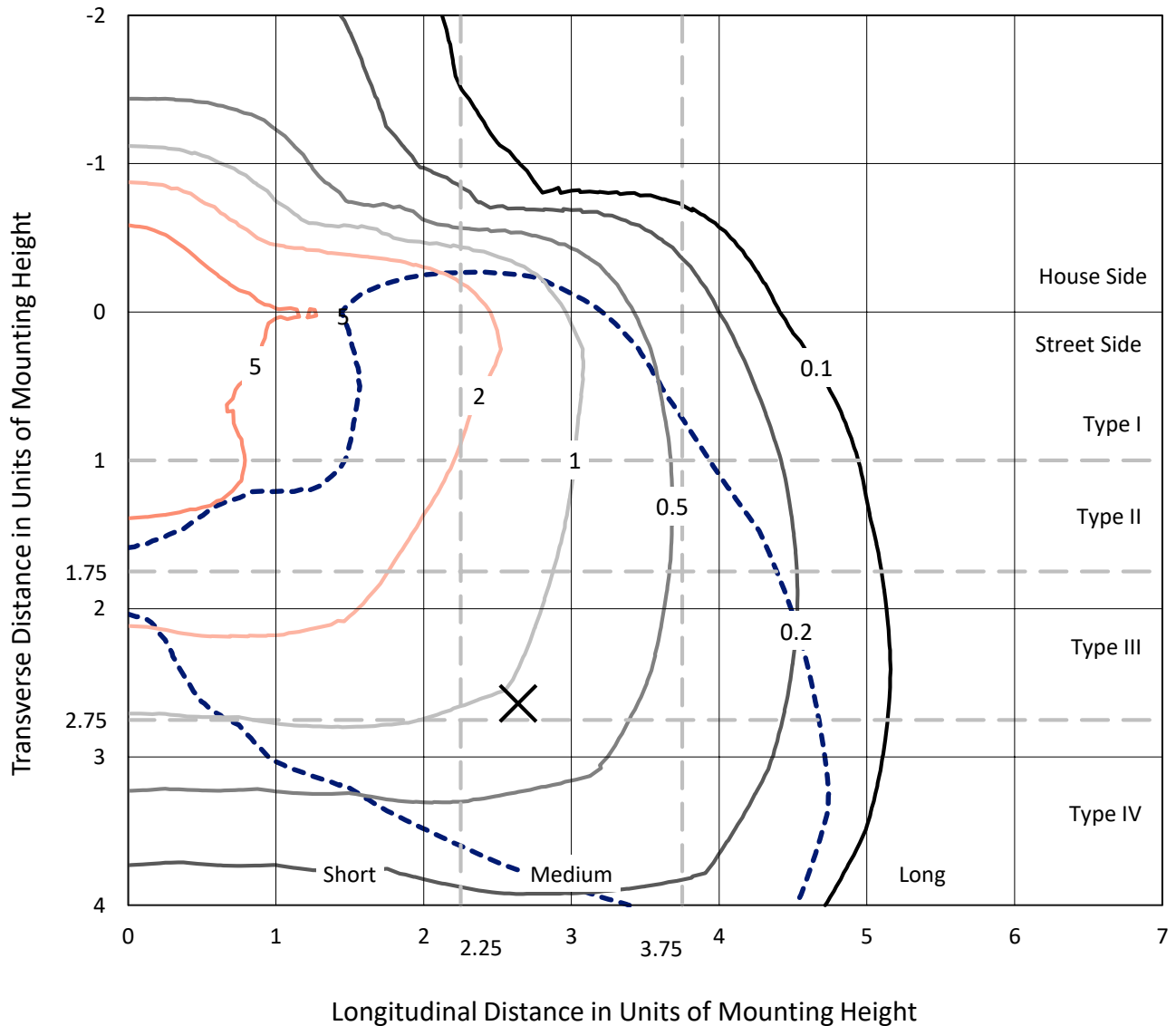


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

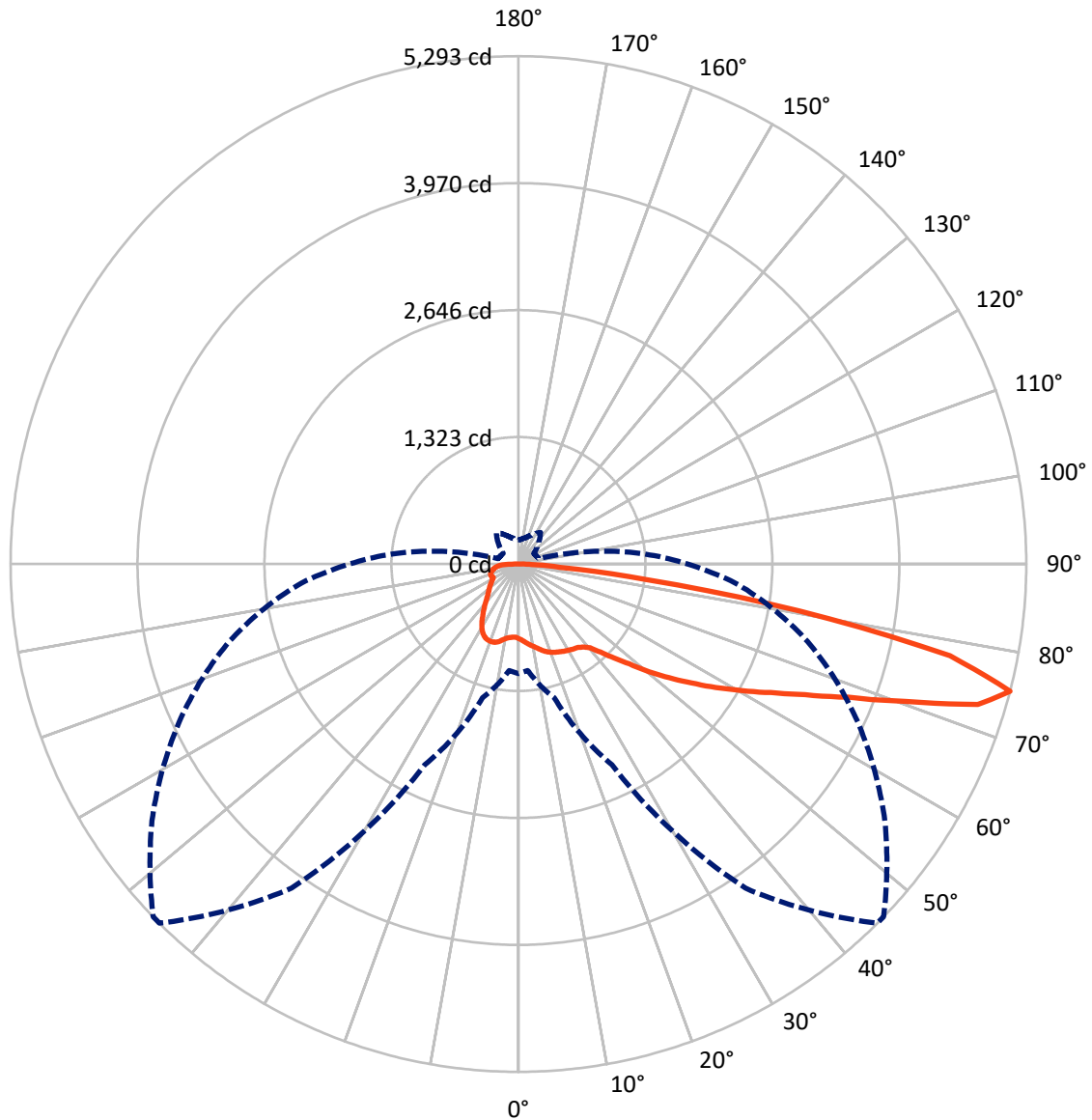


Based on 10 foot mounting height. Maximum calculated value = 9.1 fc
 Type IV - Medium - Non-Cutoff

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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	1755.7	0.0	1755.7
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	5823.3	0.0	5823.3
	% Fixture	76.8	0.0	76.8
Total	Lumens	7579.0	0.0	7579.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.0	1.0
10°-20°	249.5	3.3
20°-30°	428.2	5.6
30°-40°	598.8	7.9
40°-50°	878.4	11.6
50°-60°	1368.4	18.1
60°-70°	1969.0	26.0
70°-80°	1715.2	22.6
80°-90°	294.6	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°	7579.0	100.0
0°-180°	7579.0	100.0



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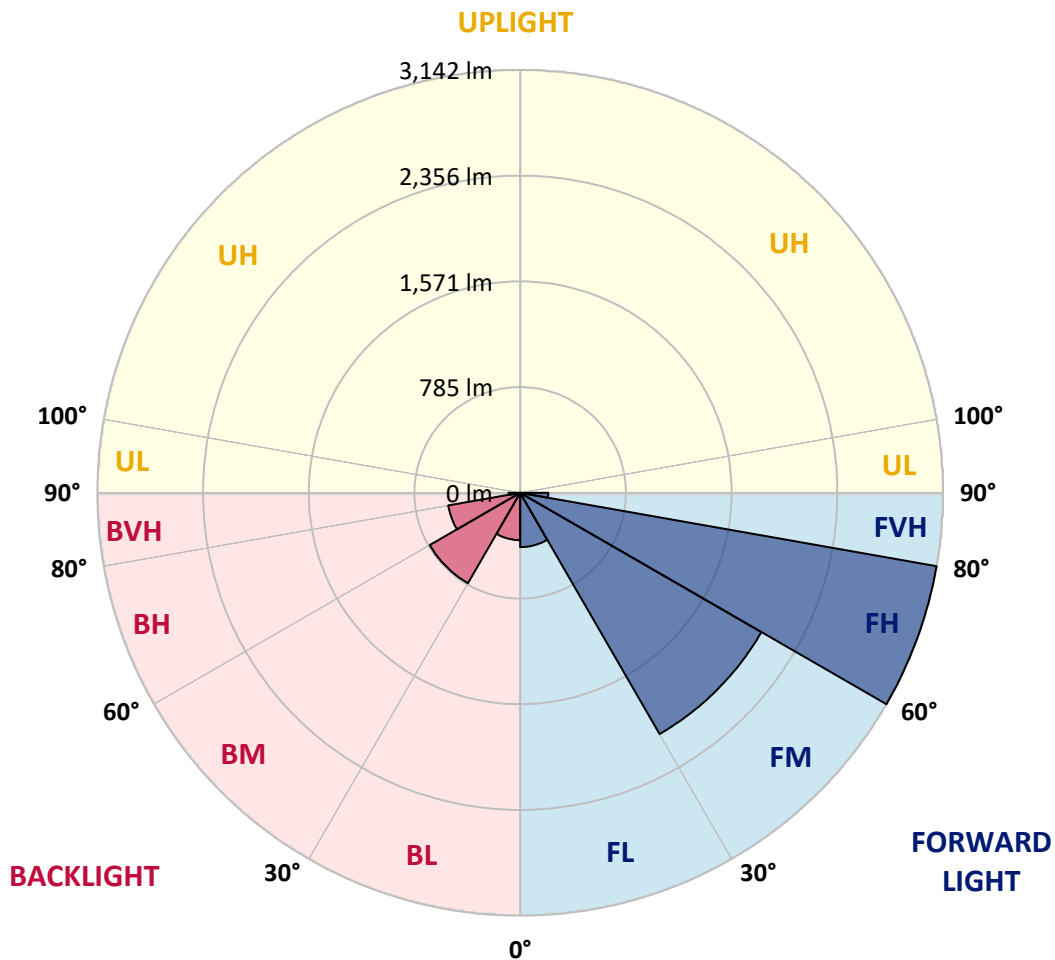
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	403.0	5.3			
FM	(30°-60°)	2069.7	27.3			
FH	(60°-80°)	3141.6	41.5			G2/5000
FVH	(80°-90°)	209.0	2.8			G2/225
BL	(0°-30°)	351.6	4.6	B1/500		
BM	(30°-60°)	775.9	10.2	B1/1000		
BH	(60°-80°)	542.6	7.2	B2/1000		G2/1000
BVH	(80°-90°)	85.6	1.1			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 IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	777.0	777.0	777.0	777.0	777.0	777.0	777.0	777.0	777.0	777.0	777.0
2.5°	815.3	809.4	809.4	805.0	805.0	797.6	794.6	793.2	785.8	781.4	777.0
5°	862.5	855.1	853.6	843.3	838.9	822.7	821.2	810.9	797.6	784.3	774.0
7.5°	905.2	900.8	893.4	883.1	869.8	849.2	847.7	831.5	809.4	791.7	777.0
10°	936.2	933.2	922.9	909.6	894.9	874.3	872.8	855.1	828.6	807.9	787.3
12.5°	973.0	968.6	955.3	937.7	921.4	902.3	900.8	886.1	856.6	830.0	803.5
15°	1008.4	1002.5	986.3	968.6	950.9	934.7	934.7	918.5	887.5	856.6	825.6
17.5°	1026.1	1023.2	1006.9	987.8	973.0	961.2	959.8	945.0	914.1	881.6	847.7
20°	1032.0	1033.5	1018.7	998.1	987.8	981.9	980.4	970.1	936.2	905.2	872.8
22.5°	1030.5	1035.0	1023.2	1001.0	998.1	998.1	998.1	986.3	959.8	928.8	896.4
25°	1036.4	1042.3	1033.5	1006.9	1006.9	1012.8	1012.8	1006.9	983.4	956.8	924.4
27.5°	1057.1	1061.5	1054.1	1017.3	1018.7	1027.6	1026.1	1027.6	1012.8	987.8	955.3
30°	1082.1	1088.0	1079.2	1033.5	1032.0	1040.9	1040.9	1048.2	1037.9	1011.4	984.8
32.5°	1150.0	1148.5	1120.5	1051.2	1046.8	1055.6	1055.6	1063.0	1057.1	1036.4	1011.4
35°	1351.9	1329.8	1267.9	1108.7	1064.4	1068.9	1068.9	1082.1	1085.1	1068.9	1046.8
37.5°	1558.3	1551.0	1503.8	1262.0	1129.3	1096.9	1095.4	1114.6	1127.8	1114.6	1099.8
40°	1766.2	1760.3	1750.0	1466.9	1264.9	1147.0	1142.6	1158.8	1182.4	1173.5	1164.7
42.5°	1959.3	1956.4	1966.7	1668.9	1437.4	1254.6	1241.4	1222.2	1256.1	1253.2	1253.2
45°	2111.2	2118.6	2124.5	1857.6	1624.7	1393.2	1377.0	1312.1	1357.8	1369.6	1378.5
47.5°	2196.7	2202.6	2223.2	2041.9	1811.9	1553.9	1542.1	1436.0	1496.4	1531.8	1556.9
50°	2319.1	2302.9	2320.5	2221.8	2037.5	1763.3	1730.8	1602.6	1679.2	1741.1	1800.1
52.5°	2437.0	2410.5	2425.2	2429.6	2294.0	1968.2	1934.3	1798.6	1894.5	1991.8	2096.5
55°	2543.2	2541.7	2556.4	2631.6	2541.7	2187.9	2149.5	2015.4	2153.9	2258.6	2435.5
57.5°	2628.7	2643.4	2708.3	2866.0	2827.7	2426.7	2383.9	2267.5	2431.1	2535.8	2829.2
60°	2728.9	2752.5	2860.1	3065.1	3088.7	2677.3	2633.1	2549.1	2715.7	2821.8	3284.7
62.5°	2762.8	2796.7	3017.9	3274.4	3361.4	2951.5	2911.7	2855.7	3014.9	3110.8	3738.8
65°	2537.3	2602.1	3104.9	3382.0	3654.8	3281.8	3247.9	3199.2	3312.7	3376.1	4046.9
67.5°	2475.3	2504.8	2935.3	3536.8	3930.5	3706.4	3672.5	3588.4	3591.4	3564.9	4147.2
70°	2388.4	2420.8	2761.4	3653.3	4325.6	4287.3	4246.0	3998.3	3846.4	3685.7	3949.6
72.5°	2034.5	2024.2	2379.5	3339.3	4515.8	5006.7	4958.1	4439.1	4035.2	3581.1	3333.4
75°	1142.6	1113.1	1443.3	2310.2	4123.6	5292.7	5291.3	4661.7	3902.5	3119.6	2268.9
77.5°	331.7	322.9	476.2	968.6	2776.1	4598.3	4654.4	4204.7	3256.7	2240.9	1245.8
80°	156.3	159.2	204.9	319.9	1185.3	2967.8	3128.5	2768.7	1946.1	1033.5	514.5
82.5°	98.8	100.3	140.1	206.4	501.3	1347.5	1480.2	1245.8	771.1	446.7	227.0
85°	61.9	61.9	92.9	135.6	299.3	430.5	467.4	424.6	330.2	243.3	123.8
87.5°	33.9	33.9	56.0	78.1	163.6	138.6	143.0	169.5	206.4	148.9	61.9
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°	777.0	777.0	777.0	777.0	777.0	777.0	777.0	777.0	777.0	777.0	777.0
2.5°	775.5	772.5	768.1	766.6	765.2	763.7	765.2	768.1	765.2	765.2	766.6
5°	771.1	768.1	762.2	762.2	763.7	765.2	772.5	777.0	778.4	778.4	778.4
7.5°	771.1	766.6	762.2	763.7	766.6	772.5	784.3	791.7	797.6	799.1	799.1
10°	778.4	772.5	769.6	772.5	781.4	785.8	797.6	809.4	816.8	819.7	819.7
12.5°	791.7	785.8	785.8	791.7	803.5	809.4	819.7	828.6	837.4	841.8	841.8
15°	813.8	806.4	807.9	818.2	831.5	837.4	844.8	847.7	855.1	861.0	861.0
17.5°	834.5	827.1	830.0	841.8	850.7	853.6	858.0	856.6	859.5	863.9	865.4
20°	858.0	850.7	852.1	859.5	861.0	858.0	858.0	853.6	852.1	859.5	862.5
22.5°	881.6	874.3	872.8	868.4	861.0	853.6	849.2	844.8	841.8	849.2	852.1
25°	909.6	899.3	892.0	872.8	853.6	840.3	834.5	831.5	830.0	837.4	840.3
27.5°	940.6	930.3	908.2	866.9	835.9	813.8	809.4	809.4	812.3	816.8	819.7
30°	970.1	959.8	920.0	853.6	805.0	772.5	768.1	772.5	779.9	784.3	788.7
32.5°	999.6	989.3	927.3	833.0	759.3	718.0	715.0	722.4	734.2	737.1	740.1
35°	1039.4	1029.1	936.2	803.5	701.8	657.5	654.6	659.0	669.3	673.8	678.2
37.5°	1095.4	1089.5	949.4	771.1	648.7	600.0	591.2	588.2	594.1	592.7	598.6
40°	1169.1	1173.5	973.0	728.3	597.1	547.0	527.8	519.0	513.1	501.3	507.2
42.5°	1276.7	1279.7	999.6	679.7	552.9	496.8	471.8	455.6	443.8	424.6	427.5
45°	1434.5	1409.4	1030.5	628.1	513.1	457.0	427.5	408.4	392.2	375.9	377.4
47.5°	1643.8	1567.2	1064.4	585.3	473.2	424.6	398.1	375.9	356.8	343.5	345.0
50°	1901.8	1763.3	1098.4	545.5	433.4	399.5	375.9	352.4	333.2	319.9	318.4
52.5°	2242.4	1999.1	1120.5	501.3	393.6	377.4	356.8	334.7	311.1	294.9	293.4
55°	2596.2	2273.4	1139.6	448.2	355.3	352.4	342.0	317.0	289.0	268.3	265.4
57.5°	2985.5	2566.8	1154.4	396.6	325.8	331.7	328.8	299.3	268.3	249.2	247.7
60°	3339.3	2870.5	1107.2	350.9	299.3	311.1	314.0	289.0	272.7	277.2	278.6
62.5°	3696.1	3104.9	927.3	317.0	281.6	297.8	322.9	321.4	314.0	321.4	322.9
65°	3824.3	3153.5	657.5	289.0	263.9	303.7	350.9	347.9	314.0	300.8	297.8
67.5°	3752.1	3009.0	442.3	266.8	250.6	311.1	380.4	347.9	302.2	284.5	278.6
70°	3408.6	2653.7	324.3	244.7	238.8	309.6	396.6	346.5	296.3	277.2	269.8
72.5°	2718.6	2047.8	261.0	224.1	221.1	302.2	405.4	343.5	290.4	269.8	261.0
75°	1760.3	1273.8	219.7	203.5	194.6	290.4	401.0	334.7	283.1	256.5	250.6
77.5°	816.8	548.4	187.2	179.9	169.5	272.7	387.7	317.0	266.8	241.8	234.4
80°	380.4	259.5	157.7	156.3	151.9	258.0	370.0	296.3	247.7	227.0	215.2
82.5°	203.5	156.3	128.3	128.3	132.7	240.3	347.9	271.3	222.6	212.3	181.3
85°	107.6	89.9	92.9	100.3	113.5	212.3	318.4	244.7	194.6	162.2	157.7
87.5°	54.5	57.5	57.5	67.8	87.0	172.5	262.4	202.0	165.1	132.7	129.7
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)