

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: P234751

Luminaire Tested: **ARCH-AF24-100-D-U-T4W-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234751
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-AF24-100-D-U-T4W-8027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 1200mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7657 lumens
Efficiency: N/A
Efficacy: 79.8 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

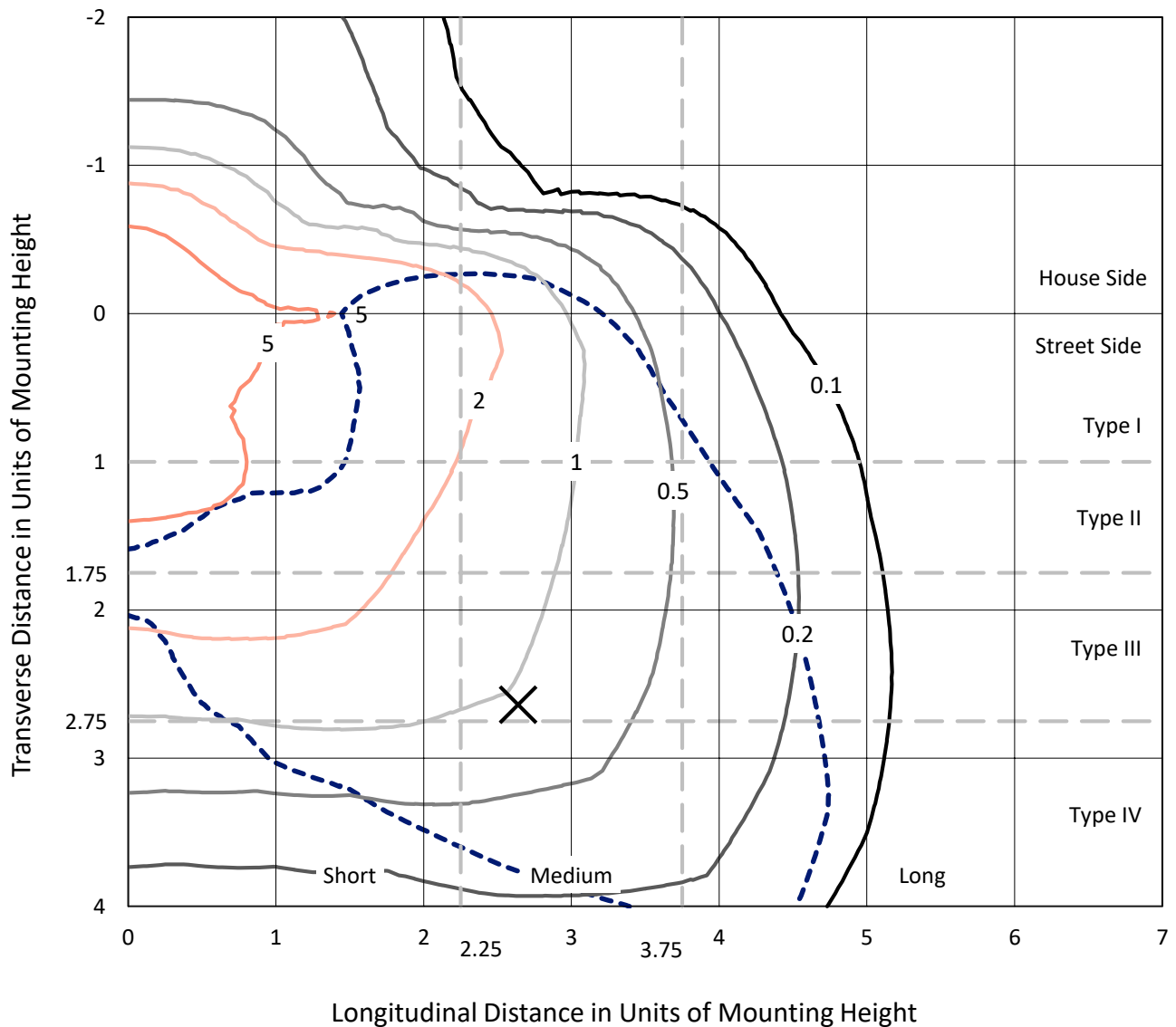
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

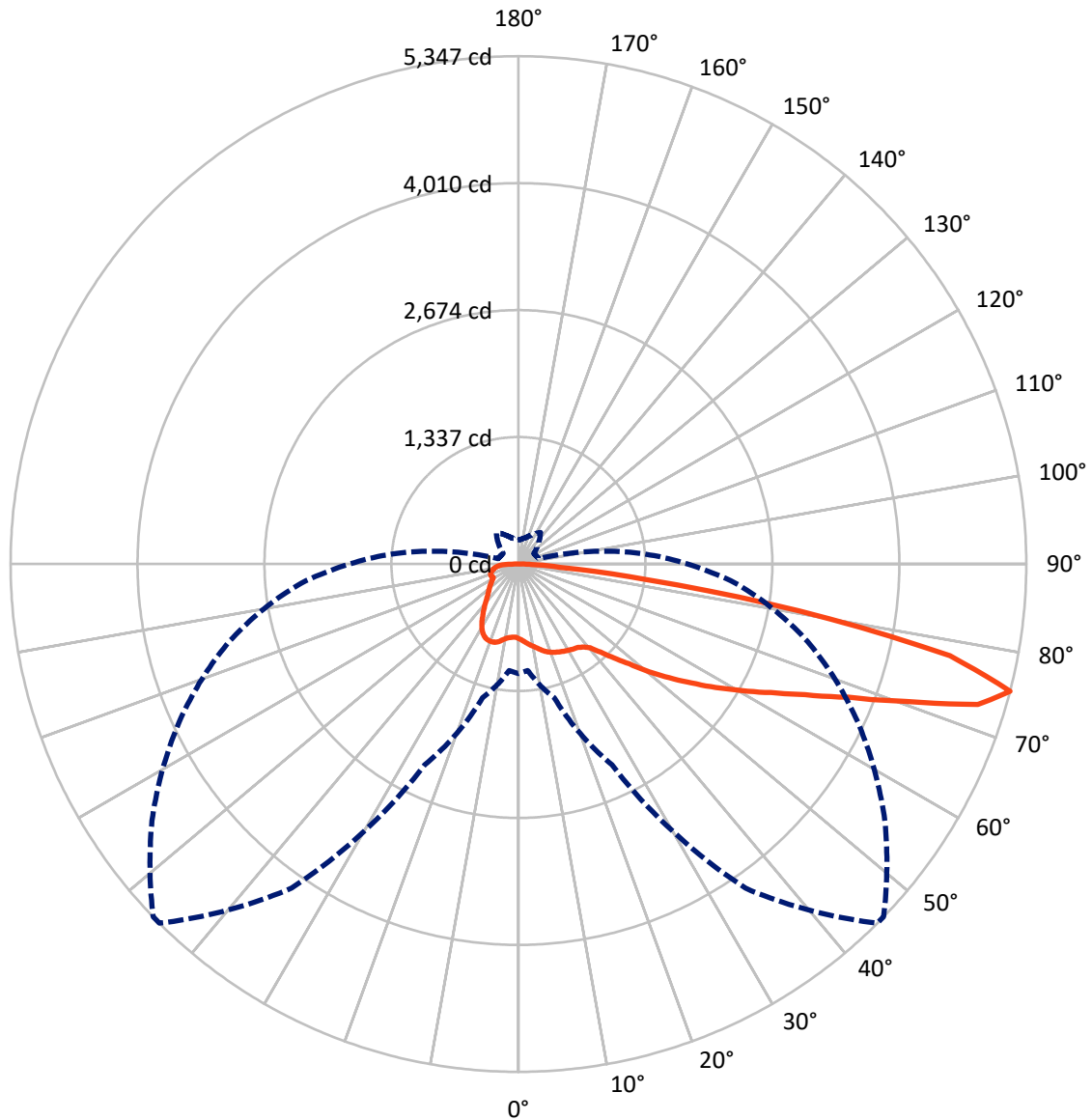
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.2 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	1773.8	0.0	1773.8
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	5883.2	0.0	5883.2
	% Fixture	76.8	0.0	76.8
Total	Lumens	7657.0	0.0	7657.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.8	1.0
10°-20°	252.1	3.3
20°-30°	432.6	5.6
30°-40°	605.0	7.9
40°-50°	887.5	11.6
50°-60°	1382.4	18.1
60°-70°	1989.2	26.0
70°-80°	1732.8	22.6
80°-90°	297.6	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°	7657.0	100.0
0°-180°	7657.0	100.0

Coefficient of Utilization



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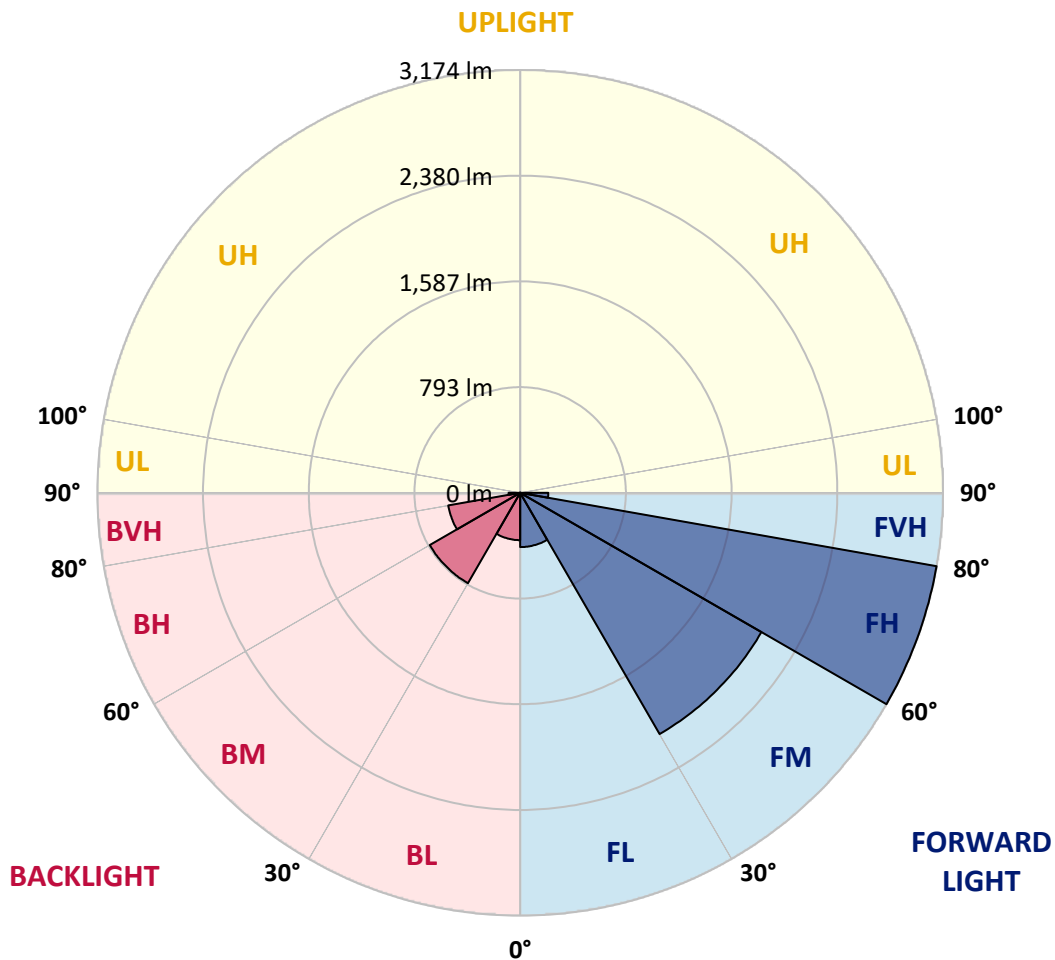
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	407.2	5.3			
FM	(30°-60°)	2091.0	27.3			
FH	(60°-80°)	3173.9	41.5			G2/5000
FVH	(80°-90°)	211.1	2.8			G2/225
BL	(0°-30°)	355.3	4.6	B1/500		
BM	(30°-60°)	783.9	10.2	B1/1000		
BH	(60°-80°)	548.2	7.2	B2/1000		G2/1000
BVH	(80°-90°)	86.5	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°	785.0	785.0	785.0	785.0	785.0	785.0	785.0	785.0	785.0	785.0	785.0
2.5°	823.7	817.7	817.7	813.3	813.3	805.8	802.8	801.3	793.9	789.4	785.0
5°	871.3	863.9	862.4	852.0	847.5	831.1	829.6	819.2	805.8	792.4	782.0
7.5°	914.5	910.1	902.6	892.2	878.8	857.9	856.4	840.1	817.7	799.8	785.0
10°	945.8	942.8	932.4	919.0	904.1	883.3	881.8	863.9	837.1	816.2	795.4
12.5°	983.1	978.6	965.2	947.3	930.9	911.6	910.1	895.2	865.4	838.6	811.8
15°	1018.8	1012.8	996.5	978.6	960.7	944.3	944.3	927.9	896.7	865.4	834.1
17.5°	1036.7	1033.7	1017.3	997.9	983.1	971.1	969.6	954.8	923.5	890.7	856.4
20°	1042.6	1044.1	1029.2	1008.4	997.9	992.0	990.5	980.1	945.8	914.5	881.8
22.5°	1041.1	1045.6	1033.7	1011.4	1008.4	1008.4	1008.4	996.5	969.6	938.4	905.6
25°	1047.1	1053.1	1044.1	1017.3	1017.3	1023.3	1023.3	1017.3	993.5	966.7	933.9
27.5°	1068.0	1072.4	1065.0	1027.7	1029.2	1038.2	1036.7	1038.2	1023.3	997.9	965.2
30°	1093.3	1099.2	1090.3	1044.1	1042.6	1051.6	1051.6	1059.0	1048.6	1021.8	995.0
32.5°	1161.8	1160.3	1132.0	1062.0	1057.5	1066.5	1066.5	1073.9	1068.0	1047.1	1021.8
35°	1365.8	1343.5	1280.9	1120.1	1075.4	1079.9	1079.9	1093.3	1096.3	1079.9	1057.5
37.5°	1574.4	1566.9	1519.3	1275.0	1140.9	1108.2	1106.7	1126.0	1139.4	1126.0	1111.1
40°	1784.4	1778.4	1768.0	1482.0	1278.0	1158.8	1154.3	1170.7	1194.6	1185.6	1176.7
42.5°	1979.5	1976.5	1987.0	1686.1	1452.2	1267.5	1254.1	1234.8	1269.0	1266.1	1266.1
45°	2132.9	2140.4	2146.3	1876.7	1641.4	1407.5	1391.2	1325.6	1371.8	1383.7	1392.7
47.5°	2219.3	2225.3	2246.1	2062.9	1830.6	1569.9	1558.0	1450.7	1511.8	1547.6	1572.9
50°	2342.9	2326.6	2344.4	2244.6	2058.4	1781.4	1748.6	1619.1	1696.5	1759.1	1818.6
52.5°	2462.1	2435.3	2450.2	2454.6	2317.6	1988.4	1954.2	1817.2	1914.0	2012.3	2118.0
55°	2569.3	2567.8	2582.7	2658.7	2567.8	2210.4	2171.6	2036.1	2176.1	2281.9	2460.6
57.5°	2655.7	2670.6	2736.2	2895.5	2856.8	2451.7	2408.5	2290.8	2456.1	2561.9	2858.3
60°	2757.0	2780.8	2889.6	3096.6	3120.4	2704.9	2660.2	2575.3	2743.6	2850.8	3318.5
62.5°	2791.3	2825.5	3048.9	3308.1	3396.0	2981.9	2941.7	2885.1	3046.0	3142.8	3777.3
65°	2563.4	2628.9	3136.8	3416.8	3692.4	3315.6	3281.3	3232.2	3346.8	3410.9	4088.6
67.5°	2500.8	2530.6	2965.5	3573.2	3970.9	3744.5	3710.3	3625.4	3628.4	3601.5	4189.9
70°	2412.9	2445.7	2789.8	3690.9	4370.1	4331.4	4289.7	4039.4	3886.0	3723.7	3990.3
72.5°	2055.5	2045.0	2404.0	3373.7	4562.2	5058.2	5009.1	4484.8	4076.7	3617.9	3367.7
75°	1154.3	1124.6	1458.2	2334.0	4166.1	5347.2	5345.7	4709.7	3942.6	3151.7	2292.3
77.5°	335.1	326.2	481.1	978.6	2804.7	4645.7	4702.3	4248.0	3290.2	2264.0	1258.6
80°	157.9	160.9	207.0	323.2	1197.5	2998.3	3160.7	2797.2	1966.1	1044.1	519.8
82.5°	99.8	101.3	141.5	208.5	506.4	1361.4	1495.4	1258.6	779.0	451.3	229.4
85°	62.6	62.6	93.8	137.0	302.4	434.9	472.2	429.0	333.6	245.8	125.1
87.5°	34.3	34.3	56.6	78.9	165.3	140.0	144.5	171.3	208.5	150.4	62.6
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°	785.0	785.0	785.0	785.0	785.0	785.0	785.0	785.0	785.0	785.0	785.0
2.5°	783.5	780.5	776.0	774.5	773.0	771.5	773.0	776.0	773.0	773.0	774.5
5°	779.0	776.0	770.1	770.1	771.5	773.0	780.5	785.0	786.4	786.4	786.4
7.5°	779.0	774.5	770.1	771.5	774.5	780.5	792.4	799.8	805.8	807.3	807.3
10°	786.4	780.5	777.5	780.5	789.4	793.9	805.8	817.7	825.2	828.1	828.1
12.5°	799.8	793.9	793.9	799.8	811.8	817.7	828.1	837.1	846.0	850.5	850.5
15°	822.2	814.7	816.2	826.7	840.1	846.0	853.5	856.4	863.9	869.9	869.9
17.5°	843.0	835.6	838.6	850.5	859.4	862.4	866.9	865.4	868.4	872.8	874.3
20°	866.9	859.4	860.9	868.4	869.9	866.9	866.9	862.4	860.9	868.4	871.3
22.5°	890.7	883.3	881.8	877.3	869.9	862.4	857.9	853.5	850.5	857.9	860.9
25°	919.0	908.6	901.1	881.8	862.4	849.0	843.0	840.1	838.6	846.0	849.0
27.5°	950.3	939.9	917.5	875.8	844.5	822.2	817.7	817.7	820.7	825.2	828.1
30°	980.1	969.6	929.4	862.4	813.3	780.5	776.0	780.5	787.9	792.4	796.9
32.5°	1009.9	999.4	936.9	841.6	767.1	725.4	722.4	729.8	741.8	744.7	747.7
35°	1050.1	1039.7	945.8	811.8	709.0	664.3	661.3	665.8	676.2	680.7	685.2
37.5°	1106.7	1100.7	959.2	779.0	655.4	606.2	597.3	594.3	600.3	598.8	604.7
40°	1181.2	1185.6	983.1	735.8	603.2	552.6	533.2	524.3	518.3	506.4	512.4
42.5°	1289.9	1292.9	1009.9	686.6	558.6	502.0	476.6	460.2	448.3	429.0	431.9
45°	1449.3	1423.9	1041.1	634.5	518.3	461.7	431.9	412.6	396.2	379.8	381.3
47.5°	1660.8	1583.3	1075.4	591.3	478.1	429.0	402.2	379.8	360.5	347.0	348.5
50°	1921.4	1781.4	1109.7	551.1	437.9	403.6	379.8	356.0	336.6	323.2	321.7
52.5°	2265.5	2019.7	1132.0	506.4	397.7	381.3	360.5	338.1	314.3	297.9	296.4
55°	2623.0	2296.8	1151.4	452.8	359.0	356.0	345.6	320.2	291.9	271.1	268.1
57.5°	3016.2	2593.2	1166.3	400.7	329.2	335.1	332.2	302.4	271.1	251.7	250.2
60°	3373.7	2900.0	1118.6	354.5	302.4	314.3	317.3	291.9	275.6	280.0	281.5
62.5°	3734.1	3136.8	936.9	320.2	284.5	300.9	326.2	324.7	317.3	324.7	326.2
65°	3863.7	3186.0	664.3	291.9	266.6	306.8	354.5	351.5	317.3	303.9	300.9
67.5°	3790.7	3040.0	446.8	269.6	253.2	314.3	384.3	351.5	305.3	287.5	281.5
70°	3443.7	2681.0	327.7	247.3	241.3	312.8	400.7	350.0	299.4	280.0	272.6
72.5°	2746.6	2068.9	263.6	226.4	223.4	305.3	409.6	347.0	293.4	272.6	263.6
75°	1778.4	1286.9	221.9	205.5	196.6	293.4	405.1	338.1	286.0	259.2	253.2
77.5°	825.2	554.1	189.2	181.7	171.3	275.6	391.7	320.2	269.6	244.3	236.8
80°	384.3	262.1	159.4	157.9	153.4	260.7	373.9	299.4	250.2	229.4	217.5
82.5°	205.5	157.9	129.6	129.6	134.1	242.8	351.5	274.1	224.9	214.5	183.2
85°	108.7	90.9	93.8	101.3	114.7	214.5	321.7	247.3	196.6	163.8	159.4
87.5°	55.1	58.1	58.1	68.5	87.9	174.3	265.1	204.1	166.8	134.1	131.1
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)