

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: P234722

Luminaire Tested: **ARCH-AF24-90-D-U-T3-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234722
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)
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-T3-8027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 1180mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7627 lumens
Efficiency: N/A
Efficacy: 81.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 94
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

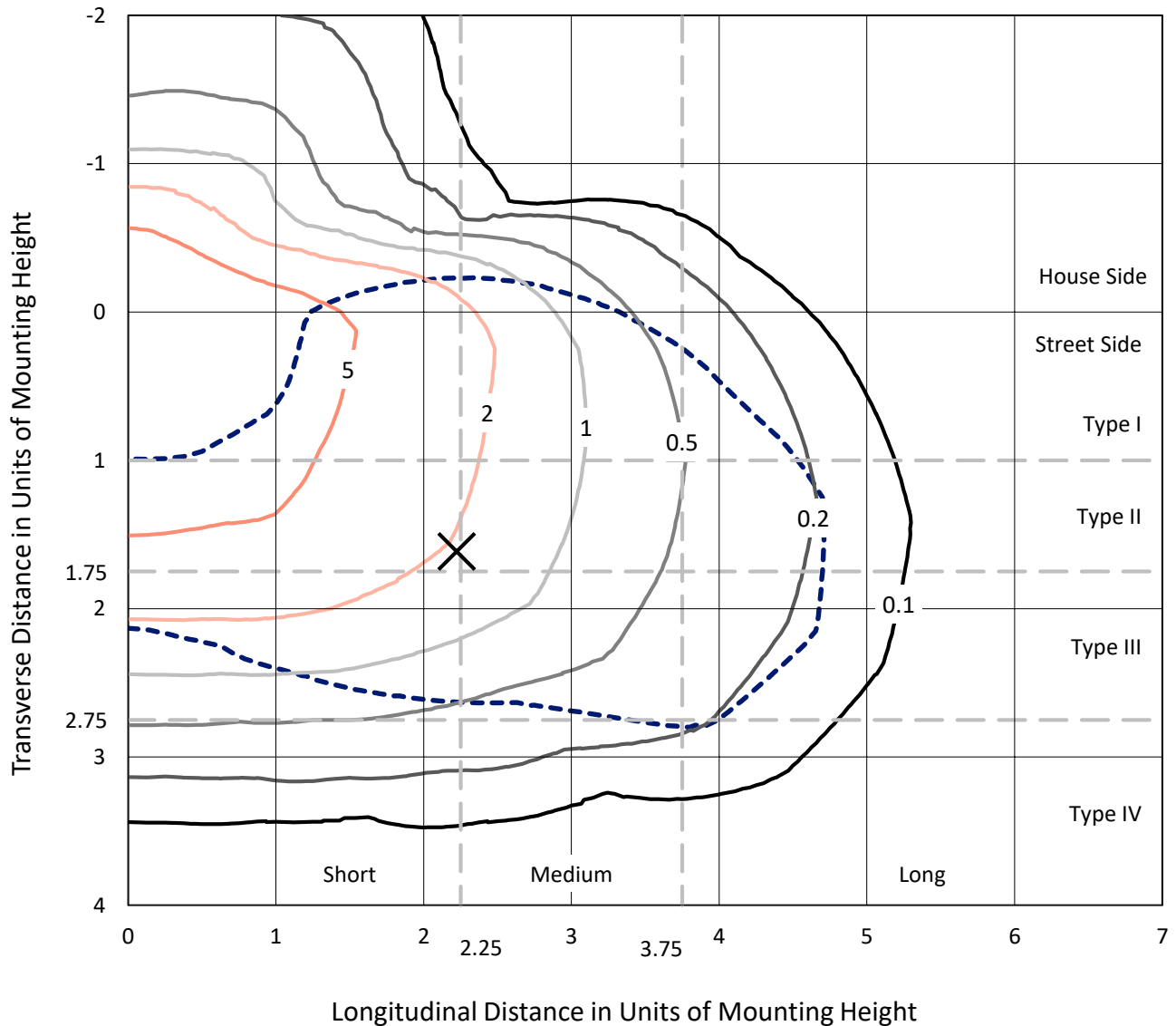


REPORT NUMBER: P234722

CATALOG NUMBER: ARCH-AF24-90-D-U-T3-8027

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

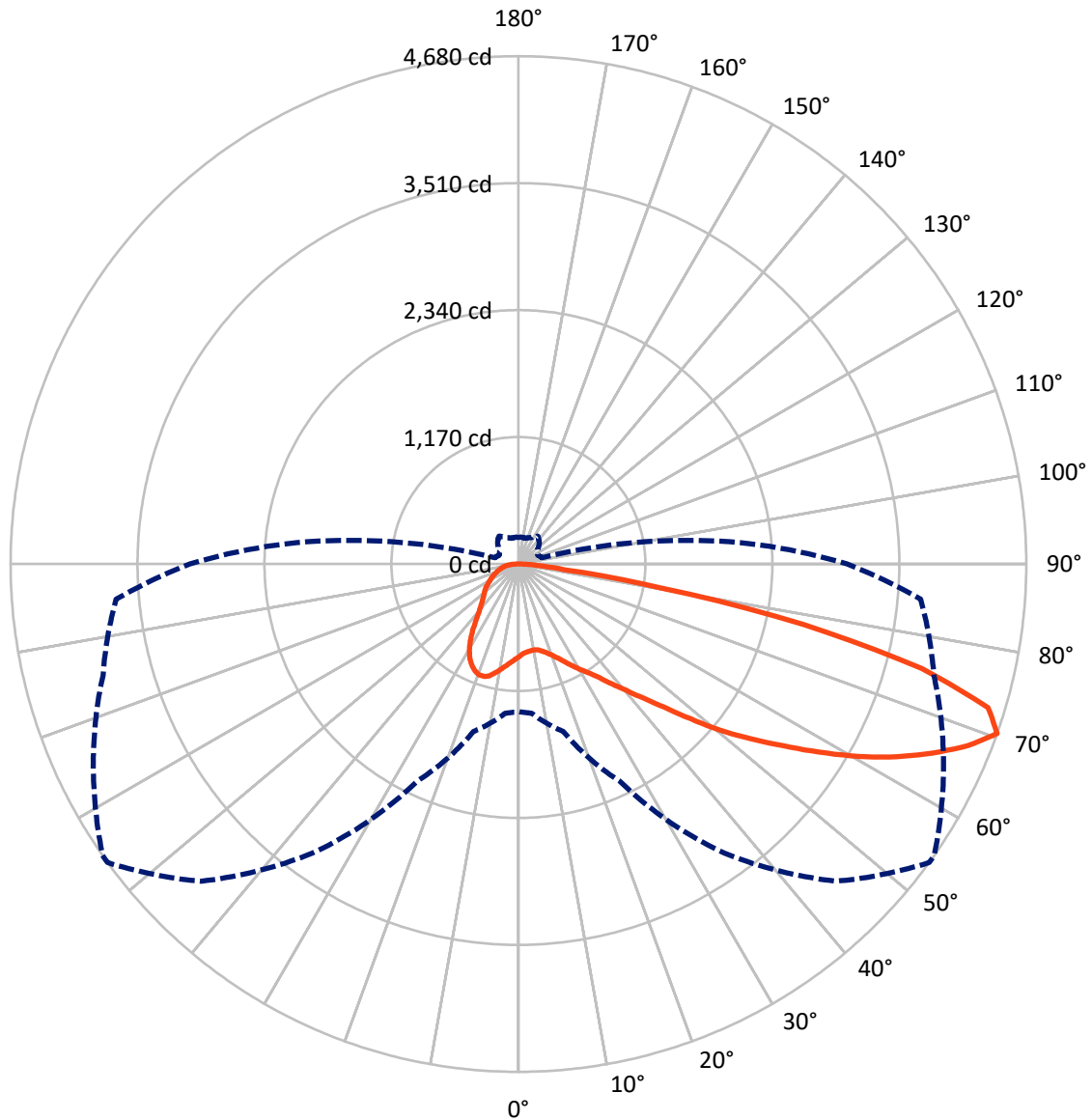


Based on 10 foot mounting height. Maximum calculated value = 9.9 fc
 Type III - Short - Non-Cutoff

REPORT NUMBER: P234722

CATALOG NUMBER: ARCH-AF24-90-D-U-T3-8027

Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P234722

CATALOG NUMBER: ARCH-AF24-90-D-U-T3-8027

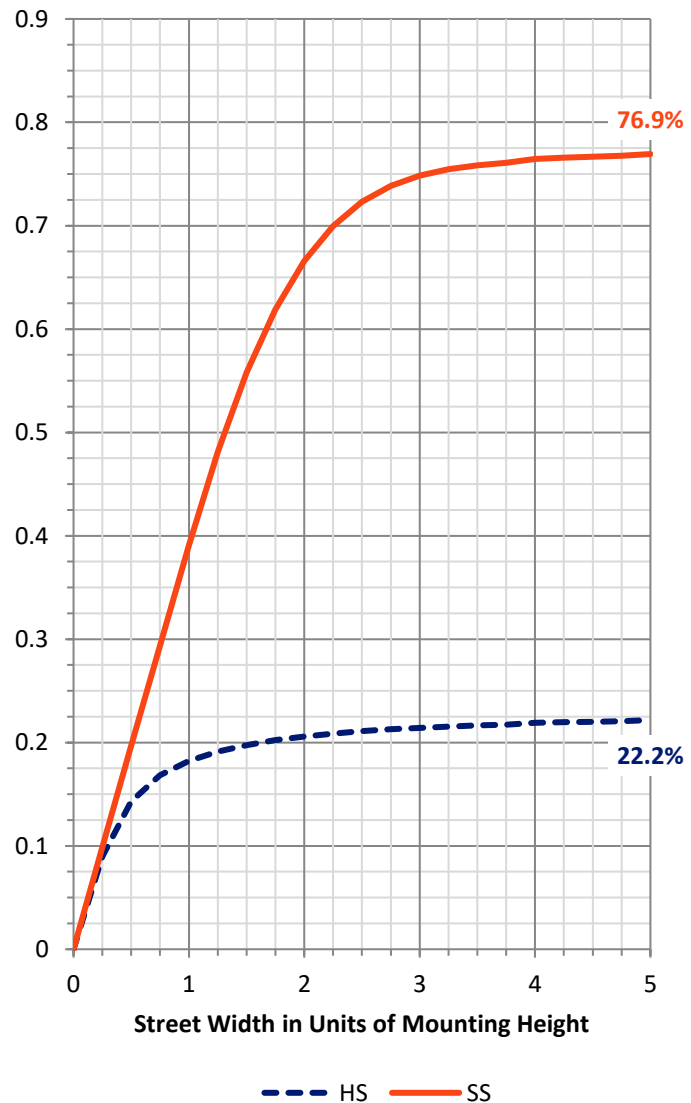
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1729.8	0.0	1729.8
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	5897.2	0.0	5897.2
	% Fixture	77.3	0.0	77.3
Total	Lumens	7627.0	0.0	7627.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.7	1.1
10°-20°	267.6	3.5
20°-30°	464.9	6.1
30°-40°	679.4	8.9
40°-50°	1066.2	14.0
50°-60°	1639.6	21.5
60°-70°	2003.2	26.3
70°-80°	1242.0	16.3
80°-90°	180.4	2.4
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°	7627.0	100.0
0°-180°	7627.0	100.0



REPORT NUMBER: P234722

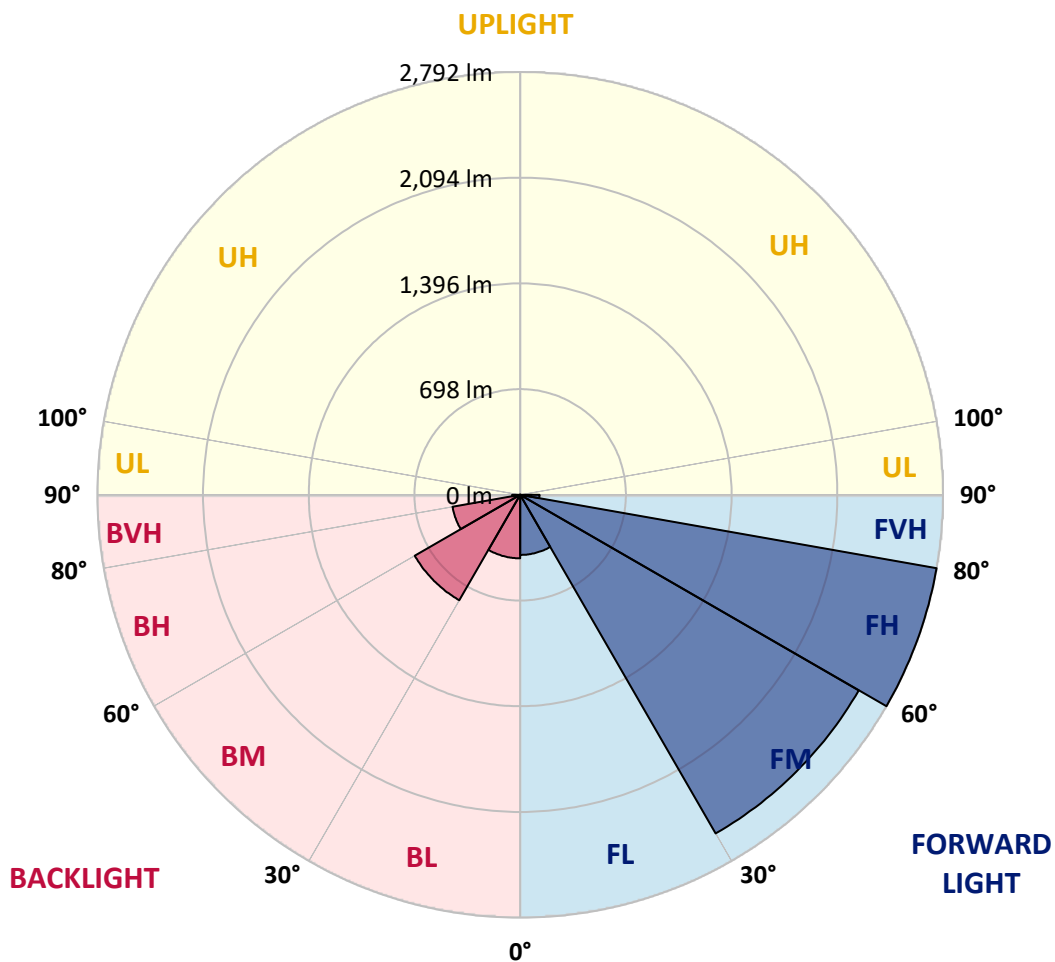
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	396.8	5.2			
FM	(30°-60°)	2581.4	33.8			
FH	(60°-80°)	2791.6	36.6			G2/5000
FVH	(80°-90°)	127.4	1.7			G2/225
BL	(0°-30°)	419.4	5.5	B1/500		
BM	(30°-60°)	803.8	10.5	B1/1000		
BH	(60°-80°)	453.6	5.9	B1/500		G1/500
BVH	(80°-90°)	53.0	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Short





REPORT NUMBER: P234722

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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	853.3	853.3	853.3	853.3	853.3	853.3	853.3	853.3	853.3	853.3	853.3
2.5°	819.8	817.0	817.0	821.2	822.6	826.8	826.8	828.2	832.4	839.3	847.7
5°	794.7	793.3	794.7	800.2	803.0	811.4	814.2	815.6	824.0	835.2	847.7
7.5°	769.5	768.1	770.9	779.3	787.7	800.2	807.2	808.6	821.2	836.5	853.3
10°	761.1	759.7	763.9	770.9	779.3	793.3	804.4	805.8	824.0	842.1	865.9
12.5°	772.3	770.9	775.1	782.1	790.5	800.2	812.8	814.2	837.9	861.7	886.8
15°	800.2	800.2	801.6	805.8	814.2	822.6	833.8	835.2	860.3	888.2	913.4
17.5°	843.5	840.7	840.7	839.3	844.9	849.1	863.1	864.5	891.0	916.2	941.3
20°	896.6	895.2	889.6	882.6	881.2	884.0	898.0	899.4	925.9	946.9	970.6
22.5°	960.8	962.2	949.7	934.3	927.3	931.5	944.1	945.5	965.0	983.2	1004.1
25°	1046.0	1041.8	1023.7	1001.3	987.4	987.4	999.9	999.9	1018.1	1029.3	1043.2
27.5°	1127.0	1118.7	1101.9	1069.8	1047.4	1051.6	1064.2	1064.2	1080.9	1085.1	1092.1
30°	1215.0	1206.6	1185.7	1145.2	1115.9	1113.1	1128.4	1127.0	1149.4	1148.0	1142.4
32.5°	1322.6	1318.4	1283.5	1231.8	1192.7	1182.9	1196.9	1198.3	1212.2	1208.0	1189.9
35°	1473.4	1472.0	1439.9	1349.1	1297.4	1279.3	1287.6	1287.6	1297.4	1286.2	1255.5
37.5°	1663.3	1666.1	1638.2	1504.1	1431.5	1400.8	1402.2	1400.8	1403.6	1391.0	1358.9
40°	1853.3	1860.2	1858.8	1696.8	1604.7	1551.6	1532.0	1529.2	1536.2	1530.6	1499.9
42.5°	2103.2	2120.0	2080.9	1934.3	1830.9	1741.5	1688.5	1681.5	1696.8	1703.8	1674.5
45°	2363.0	2357.4	2296.0	2189.8	2096.3	1981.7	1881.2	1870.0	1881.2	1902.1	1871.4
47.5°	2498.5	2494.3	2478.9	2425.9	2411.9	2280.6	2128.4	2118.6	2097.7	2127.0	2090.7
50°	2721.9	2726.1	2663.3	2657.7	2716.3	2643.7	2407.7	2385.3	2347.6	2371.4	2340.7
52.5°	2883.9	2865.8	2826.7	2875.5	3058.5	3019.4	2670.3	2660.5	2625.6	2620.0	2606.0
55°	2949.6	2949.6	2956.5	3069.7	3330.8	3279.2	2955.2	2964.9	2917.4	2878.3	2896.5
57.5°	2969.1	2977.5	3037.6	3224.7	3650.6	3481.7	3269.4	3283.3	3214.9	3136.7	3194.0
60°	2872.8	2897.9	3041.7	3312.7	3830.8	3696.7	3600.4	3604.6	3505.4	3390.9	3491.4
62.5°	2625.6	2656.3	2913.3	3349.0	3801.5	3917.4	3913.2	3923.0	3787.5	3645.1	3770.8
65°	2322.5	2353.2	2627.0	3247.0	3779.1	4075.2	4199.5	4226.0	4051.5	3860.1	3945.3
67.5°	1877.0	1917.5	2177.3	2903.5	3670.2	4205.1	4467.6	4495.6	4255.4	3971.9	3930.0
70°	1360.3	1379.8	1597.7	2206.6	3226.1	4133.9	4679.9	4678.5	4322.4	3963.5	3720.5
72.5°	655.0	670.4	858.9	1370.0	2307.1	3508.2	4526.3	4552.8	4230.2	3842.0	3241.5
75°	269.5	284.9	347.7	578.2	1210.8	2318.3	3836.4	3899.2	3842.0	3448.1	2536.2
77.5°	167.6	173.2	203.9	298.9	553.0	1082.3	2685.6	2770.8	3044.5	2762.4	1674.5
80°	125.7	129.9	152.2	209.5	349.1	399.4	1333.7	1441.3	1844.9	1585.1	758.3
82.5°	104.7	106.1	121.5	152.2	237.4	229.0	427.4	476.2	860.3	604.7	261.2
85°	97.8	100.6	108.9	108.9	150.8	143.8	177.4	185.7	250.0	206.7	90.8
87.5°	50.3	47.5	96.4	85.2	78.2	69.8	75.4	81.0	93.6	99.2	40.5
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: P234722

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	853.3	853.3	853.3	853.3	853.3	853.3	853.3	853.3	853.3	853.3	853.3
2.5°	850.5	854.7	861.7	868.7	877.0	886.8	892.4	899.4	905.0	902.2	900.8
5°	854.7	861.7	877.0	891.0	907.8	927.3	939.9	953.9	965.0	967.8	963.6
7.5°	861.7	874.3	895.2	920.3	942.7	967.8	987.4	1006.9	1020.9	1023.7	1023.7
10°	878.4	892.4	920.3	953.9	980.4	1006.9	1029.3	1044.6	1057.2	1062.8	1062.8
12.5°	902.2	918.9	952.5	993.0	1022.3	1047.4	1060.0	1067.0	1072.6	1078.2	1079.6
15°	930.1	948.3	988.8	1032.1	1062.8	1075.4	1075.4	1074.0	1074.0	1076.8	1079.6
17.5°	958.1	977.6	1019.5	1065.6	1085.1	1078.2	1068.4	1064.2	1061.4	1060.0	1064.2
20°	987.4	1006.9	1048.8	1092.1	1086.5	1057.2	1043.2	1033.5	1025.1	1020.9	1026.5
22.5°	1019.5	1037.7	1080.9	1110.3	1068.4	1023.7	997.2	981.8	967.8	959.4	965.0
25°	1057.2	1075.4	1117.3	1115.9	1036.3	973.4	931.5	906.4	891.0	882.6	882.6
27.5°	1101.9	1117.3	1157.8	1101.9	991.6	906.4	844.9	821.2	817.0	810.0	810.0
30°	1148.0	1160.6	1195.5	1069.8	930.1	818.4	751.4	740.2	741.6	734.6	736.0
32.5°	1195.5	1208.0	1217.8	1022.3	850.5	719.2	674.5	666.2	664.8	659.2	653.6
35°	1262.5	1280.7	1220.6	958.1	754.2	636.8	604.7	596.3	588.0	568.4	568.4
37.5°	1364.5	1384.0	1213.6	878.4	655.0	572.6	543.3	532.1	518.1	498.6	491.6
40°	1504.1	1504.1	1198.3	789.1	575.4	520.9	493.0	479.0	463.7	444.1	439.9
42.5°	1668.9	1629.8	1174.5	698.3	516.7	486.0	460.9	445.5	427.4	405.0	402.2
45°	1861.6	1755.5	1141.0	617.3	473.4	465.1	449.7	423.2	392.4	368.7	364.5
47.5°	2048.8	1868.6	1108.9	560.0	437.1	456.7	444.1	399.4	357.5	324.0	319.8
50°	2254.1	1969.2	1071.2	512.5	409.2	451.1	437.1	364.5	318.4	294.7	291.9
52.5°	2459.4	2071.1	1030.7	462.3	385.5	439.9	420.4	339.4	317.0	284.9	280.7
55°	2675.8	2189.8	983.2	406.4	357.5	417.6	398.0	338.0	326.8	284.9	275.1
57.5°	2886.7	2321.1	906.4	351.9	326.8	384.1	389.6	329.6	305.8	282.1	270.9
60°	3119.9	2460.8	779.3	305.8	300.3	356.1	378.5	311.4	282.1	273.7	268.1
62.5°	3307.1	2586.5	608.9	273.7	277.9	333.8	364.5	300.3	272.3	265.3	264.0
65°	3388.1	2589.2	437.1	245.8	255.6	312.8	350.5	290.5	264.0	261.2	259.8
67.5°	3302.9	2446.8	307.2	219.3	231.8	293.3	332.4	280.7	255.6	257.0	254.2
70°	3027.8	2146.5	224.8	194.1	209.5	272.3	312.8	268.1	245.8	248.6	244.4
72.5°	2533.4	1673.1	180.2	173.2	191.3	250.0	293.3	254.2	230.4	231.8	223.5
75°	1871.4	1108.9	150.8	155.0	170.4	229.0	268.1	236.0	213.7	208.1	202.5
77.5°	1113.1	569.8	124.3	135.5	152.2	203.9	240.2	213.7	195.5	185.7	181.6
80°	459.5	230.4	101.9	114.5	132.7	181.6	212.3	187.1	174.6	164.8	159.2
82.5°	183.0	113.1	81.0	93.6	111.7	157.8	185.7	164.8	152.2	145.2	129.9
85°	69.8	55.9	54.5	65.6	83.8	121.5	153.6	138.3	128.5	110.3	106.1
87.5°	27.9	25.1	25.1	32.1	47.5	76.8	110.3	96.4	100.6	79.6	81.0
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)