

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: P214740

Luminaire Tested: **ARCH-AF16-60-D-U-T3-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214740
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-AF16-60-D-U-T3-7050
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 1160mA LIGHT ENGINE WITH 16 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6713 lumens
Efficiency: N/A
Efficacy: 106.6 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

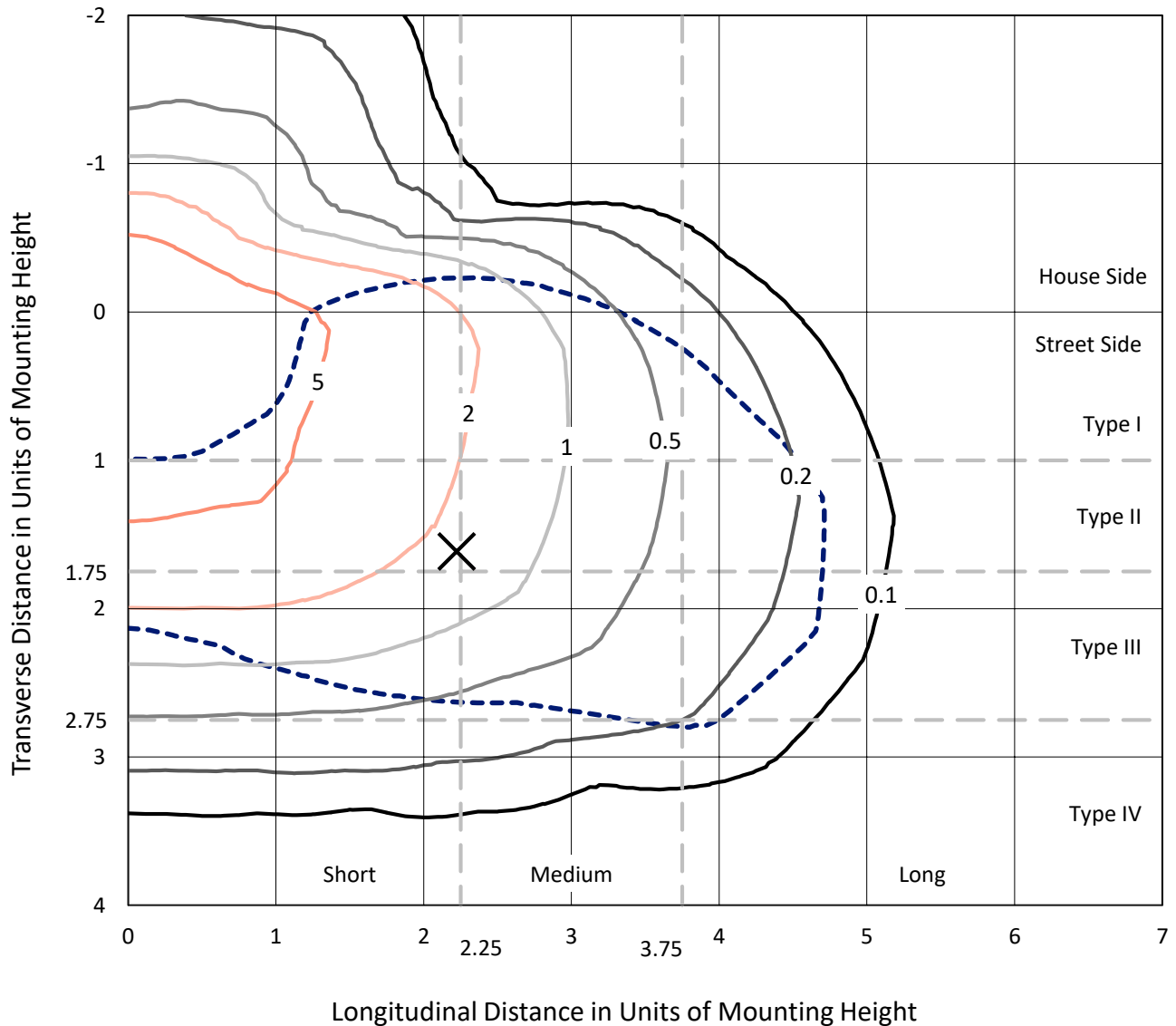
Input Watts (W): 63
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

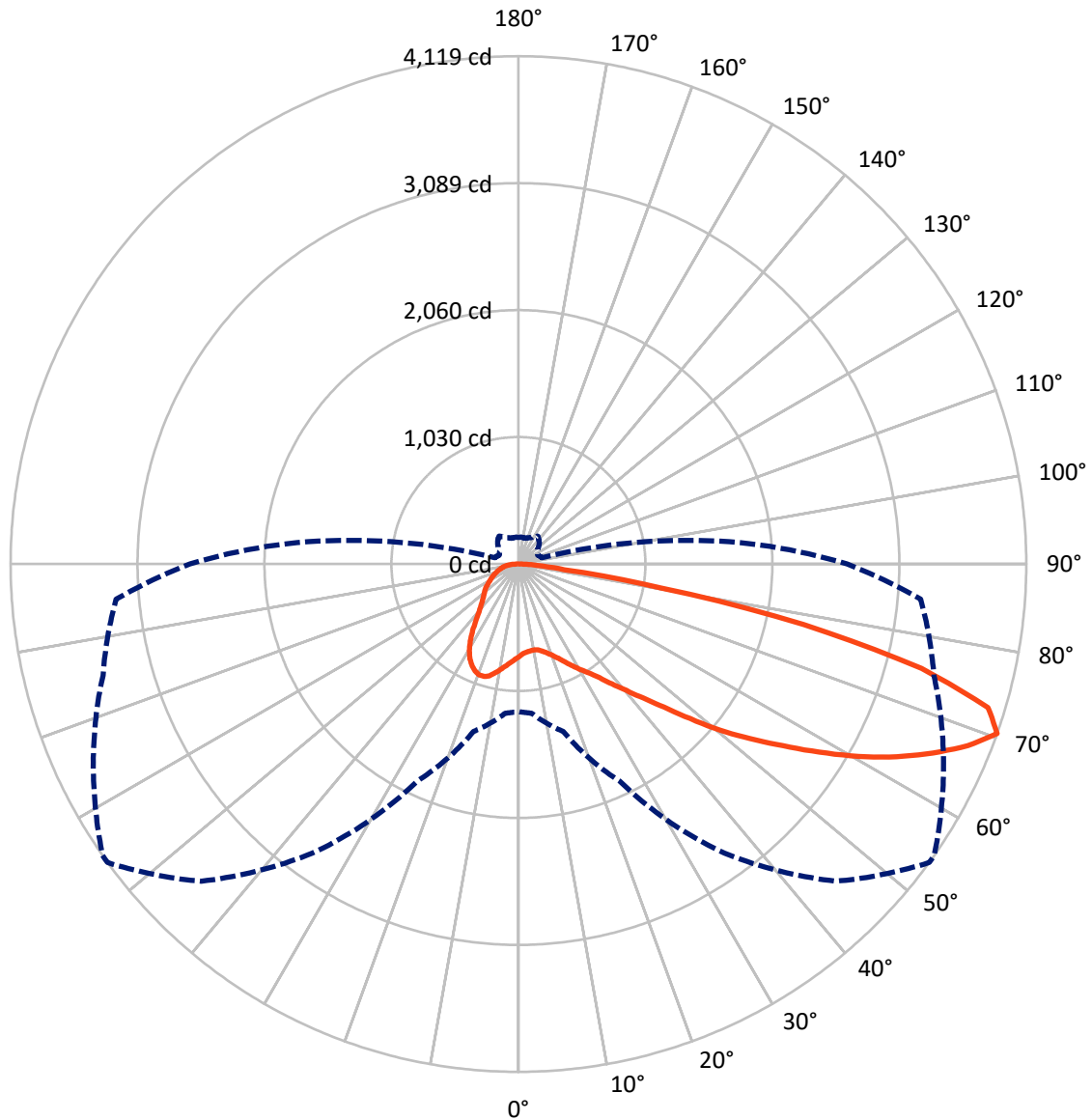
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.7 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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

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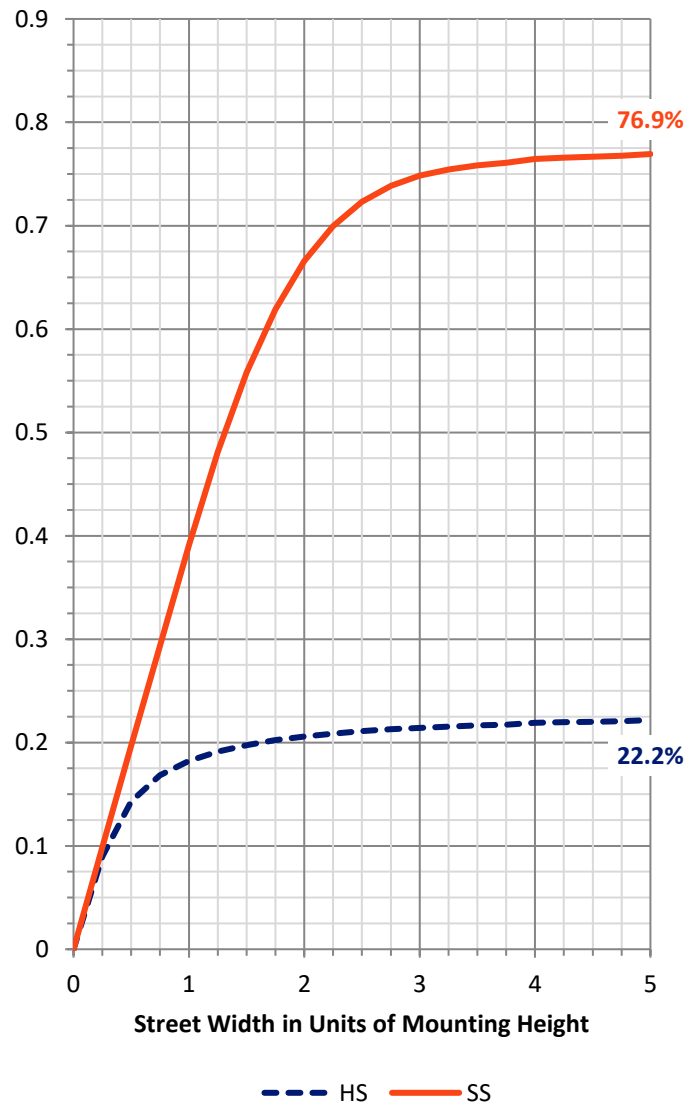
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1522.5	0.0	1522.5
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	5190.5	0.0	5190.5
	% Fixture	77.3	0.0	77.3
Total	Lumens	6713.0	0.0	6713.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.7	1.1
10°-20°	235.5	3.5
20°-30°	409.2	6.1
30°-40°	597.9	8.9
40°-50°	938.4	14.0
50°-60°	1443.1	21.5
60°-70°	1763.1	26.3
70°-80°	1093.2	16.3
80°-90°	158.8	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°	6713.0	100.0
0°-180°	6713.0	100.0



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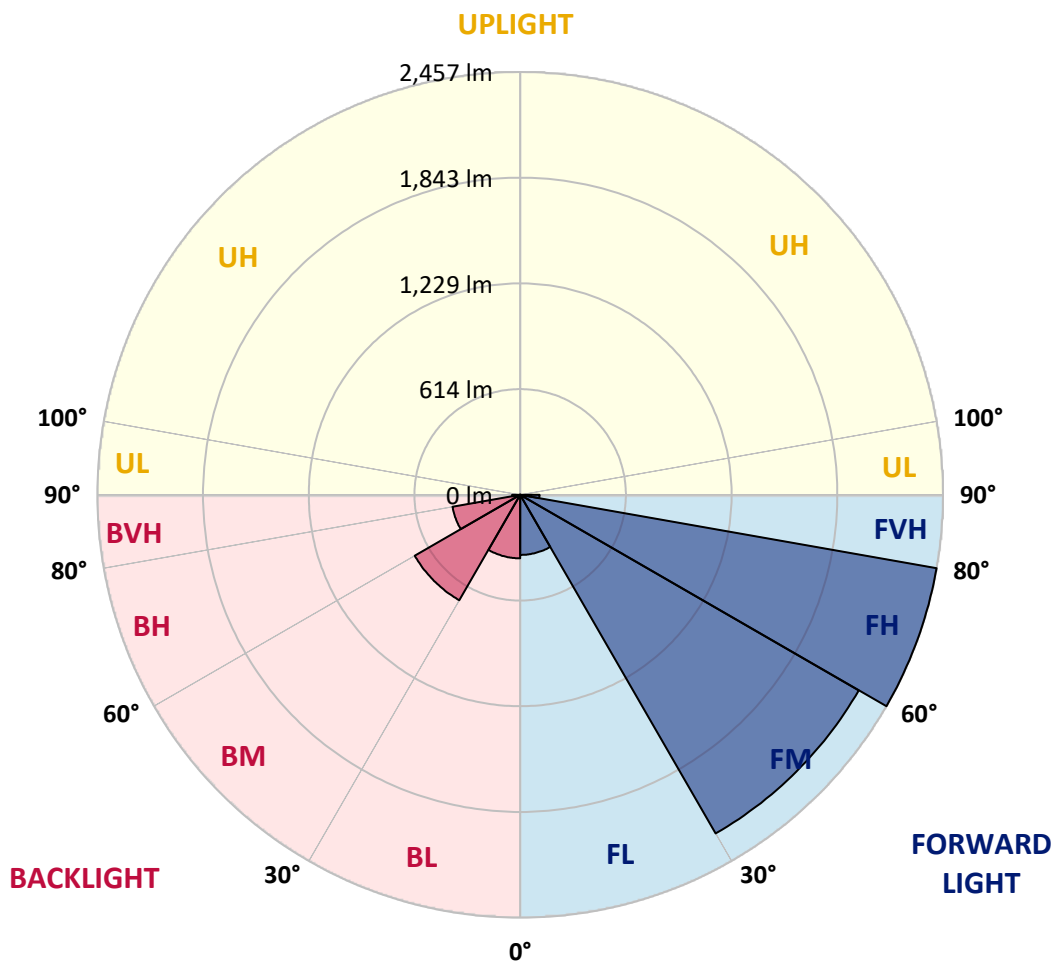
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	349.3	5.2			
FM	(30°-60°)	2272.0	33.8			
FH	(60°-80°)	2457.1	36.6			G2/5000
FVH	(80°-90°)	112.1	1.7			G2/225
BL	(0°-30°)	369.1	5.5	B1/500		
BM	(30°-60°)	707.5	10.5	B1/1000		
BH	(60°-80°)	399.2	5.9	B1/500		G1/500
BVH	(80°-90°)	46.7	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
2.5°	721.5	719.1	719.1	722.8	724.0	727.7	727.7	728.9	732.6	738.8	746.1
5°	699.4	698.2	699.4	704.3	706.8	714.2	716.6	717.9	725.2	735.1	746.1
7.5°	677.3	676.1	678.5	685.9	693.3	704.3	710.5	711.7	722.8	736.3	751.0
10°	669.9	668.7	672.4	678.5	685.9	698.2	708.0	709.3	725.2	741.2	762.1
12.5°	679.8	678.5	682.2	688.4	695.7	704.3	715.4	716.6	737.5	758.4	780.6
15°	704.3	704.3	705.6	709.3	716.6	724.0	733.8	735.1	757.2	781.8	803.9
17.5°	742.4	740.0	740.0	738.8	743.7	747.4	759.7	760.9	784.2	806.4	828.5
20°	789.2	787.9	783.0	776.9	775.6	778.1	790.4	791.6	815.0	833.4	854.3
22.5°	845.7	846.9	835.9	822.3	816.2	819.9	830.9	832.2	849.4	865.4	883.8
25°	920.7	917.0	901.0	881.3	869.1	869.1	880.1	880.1	896.1	905.9	918.2
27.5°	992.0	984.6	969.8	941.6	921.9	925.6	936.7	936.7	951.4	955.1	961.2
30°	1069.4	1062.0	1043.6	1008.0	982.1	979.7	993.2	992.0	1011.6	1010.4	1005.5
32.5°	1164.1	1160.4	1129.6	1084.2	1049.7	1041.1	1053.4	1054.7	1067.0	1063.3	1047.3
35°	1296.8	1295.6	1267.3	1187.4	1141.9	1126.0	1133.3	1133.3	1141.9	1132.1	1105.1
37.5°	1464.0	1466.5	1441.9	1323.9	1259.9	1232.9	1234.1	1232.9	1235.4	1224.3	1196.0
40°	1631.2	1637.3	1636.1	1493.5	1412.4	1365.7	1348.4	1346.0	1352.1	1347.2	1320.2
42.5°	1851.2	1865.9	1831.5	1702.5	1611.5	1532.8	1486.1	1480.0	1493.5	1499.6	1473.8
45°	2079.8	2074.9	2020.8	1927.4	1845.0	1744.3	1655.7	1645.9	1655.7	1674.2	1647.1
47.5°	2199.1	2195.4	2181.9	2135.1	2122.9	2007.3	1873.3	1864.7	1846.3	1872.1	1840.1
50°	2395.7	2399.4	2344.1	2339.2	2390.8	2326.9	2119.2	2099.5	2066.3	2087.2	2060.2
52.5°	2538.3	2522.3	2487.9	2530.9	2692.0	2657.6	2350.3	2341.7	2310.9	2306.0	2293.7
55°	2596.1	2596.1	2602.2	2701.8	2931.7	2886.2	2601.0	2609.6	2567.8	2533.4	2549.4
57.5°	2613.3	2620.7	2673.5	2838.3	3213.2	3064.4	2877.6	2889.9	2829.6	2760.8	2811.2
60°	2528.5	2550.6	2677.2	2915.7	3371.7	3253.7	3168.9	3172.6	3085.3	2984.5	3073.0
62.5°	2310.9	2338.0	2564.1	2947.7	3345.9	3447.9	3444.3	3452.9	3333.6	3208.2	3318.9
65°	2044.2	2071.2	2312.1	2857.9	3326.3	3586.8	3696.2	3719.6	3565.9	3397.5	3472.5
67.5°	1652.1	1687.7	1916.3	2555.5	3230.4	3701.2	3932.3	3956.8	3745.4	3495.9	3459.0
70°	1197.3	1214.5	1406.2	1942.2	2839.5	3638.5	4119.1	4117.9	3804.4	3488.5	3274.6
72.5°	576.5	590.0	756.0	1205.9	2030.7	3087.8	3983.9	4007.2	3723.3	3381.6	2853.0
75°	237.2	250.8	306.1	508.9	1065.7	2040.5	3376.6	3432.0	3381.6	3034.9	2232.3
77.5°	147.5	152.4	179.5	263.1	486.8	952.6	2363.8	2438.8	2679.7	2431.4	1473.8
80°	110.6	114.3	134.0	184.4	307.3	351.6	1173.9	1268.5	1623.8	1395.2	667.5
82.5°	92.2	93.4	106.9	134.0	209.0	201.6	376.1	419.2	757.2	532.2	229.9
85°	86.0	88.5	95.9	95.9	132.8	126.6	156.1	163.5	220.0	181.9	79.9
87.5°	44.3	41.8	84.8	75.0	68.8	61.5	66.4	71.3	82.4	87.3	35.6
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°	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
2.5°	748.6	752.3	758.4	764.6	771.9	780.6	785.5	791.6	796.5	794.1	792.8
5°	752.3	758.4	771.9	784.2	799.0	816.2	827.3	839.6	849.4	851.8	848.2
7.5°	758.4	769.5	787.9	810.1	829.7	851.8	869.1	886.3	898.6	901.0	901.0
10°	773.2	785.5	810.1	839.6	862.9	886.3	905.9	919.5	930.5	935.4	935.4
12.5°	794.1	808.8	838.3	874.0	899.8	921.9	933.0	939.1	944.0	949.0	950.2
15°	818.7	834.6	870.3	908.4	935.4	946.5	946.5	945.3	945.3	947.7	950.2
17.5°	843.2	860.4	897.3	937.9	955.1	949.0	940.3	936.7	934.2	933.0	936.7
20°	869.1	886.3	923.1	961.2	956.3	930.5	918.2	909.6	902.2	898.6	903.5
22.5°	897.3	913.3	951.4	977.2	940.3	901.0	877.7	864.1	851.8	844.5	849.4
25°	930.5	946.5	983.4	982.1	912.1	856.8	819.9	797.8	784.2	776.9	776.9
27.5°	969.8	983.4	1019.0	969.8	872.7	797.8	743.7	722.8	719.1	712.9	712.9
30°	1010.4	1021.5	1052.2	941.6	818.7	720.3	661.3	651.5	652.7	646.6	647.8
32.5°	1052.2	1063.3	1071.9	899.8	748.6	633.0	593.7	586.3	585.1	580.2	575.3
35°	1111.2	1127.2	1074.3	843.2	663.8	560.5	532.2	524.9	517.5	500.3	500.3
37.5°	1200.9	1218.2	1068.2	773.2	576.5	504.0	478.2	468.3	456.0	438.8	432.7
40°	1323.9	1323.9	1054.7	694.5	506.4	458.5	433.9	421.6	408.1	390.9	387.2
42.5°	1468.9	1434.5	1033.8	614.6	454.8	427.8	405.6	392.1	376.1	356.5	354.0
45°	1638.5	1545.1	1004.3	543.3	416.7	409.3	395.8	372.5	345.4	324.5	320.8
47.5°	1803.3	1644.7	976.0	492.9	384.7	402.0	390.9	351.6	314.7	285.2	281.5
50°	1983.9	1733.2	942.8	451.1	360.2	397.0	384.7	320.8	280.3	259.4	256.9
52.5°	2164.6	1822.9	907.2	406.9	339.3	387.2	370.0	298.7	279.0	250.8	247.1
55°	2355.2	1927.4	865.4	357.7	314.7	367.5	350.3	297.5	287.6	250.8	242.2
57.5°	2540.8	2043.0	797.8	309.8	287.6	338.0	343.0	290.1	269.2	248.3	238.5
60°	2746.1	2165.9	685.9	269.2	264.3	313.4	333.1	274.1	248.3	240.9	236.0
62.5°	2910.8	2276.5	535.9	240.9	244.6	293.8	320.8	264.3	239.7	233.6	232.3
65°	2982.1	2279.0	384.7	216.3	224.9	275.3	308.5	255.7	232.3	229.9	228.6
67.5°	2907.1	2153.6	270.4	193.0	204.0	258.1	292.6	247.1	224.9	226.2	223.7
70°	2664.9	1889.3	197.9	170.9	184.4	239.7	275.3	236.0	216.3	218.8	215.1
72.5°	2229.8	1472.6	158.6	152.4	168.4	220.0	258.1	223.7	202.8	204.0	196.7
75°	1647.1	976.0	132.8	136.4	150.0	201.6	236.0	207.7	188.1	183.2	178.2
77.5°	979.7	501.5	109.4	119.2	134.0	179.5	211.4	188.1	172.1	163.5	159.8
80°	404.4	202.8	89.7	100.8	116.8	159.8	186.8	164.7	153.7	145.0	140.1
82.5°	161.0	99.6	71.3	82.4	98.3	138.9	163.5	145.0	134.0	127.8	114.3
85°	61.5	49.2	47.9	57.8	73.8	106.9	135.2	121.7	113.1	97.1	93.4
87.5°	24.6	22.1	22.1	28.3	41.8	67.6	97.1	84.8	88.5	70.1	71.3
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)