

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: P257700

Luminaire Tested: **ARCH-AF24-100-D-U-T2U-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P257700
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1802-616-3)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF24-100-D-U-T2U-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 1200mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6922.3 lumens
Efficiency: N/A
Efficacy: 72.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G2

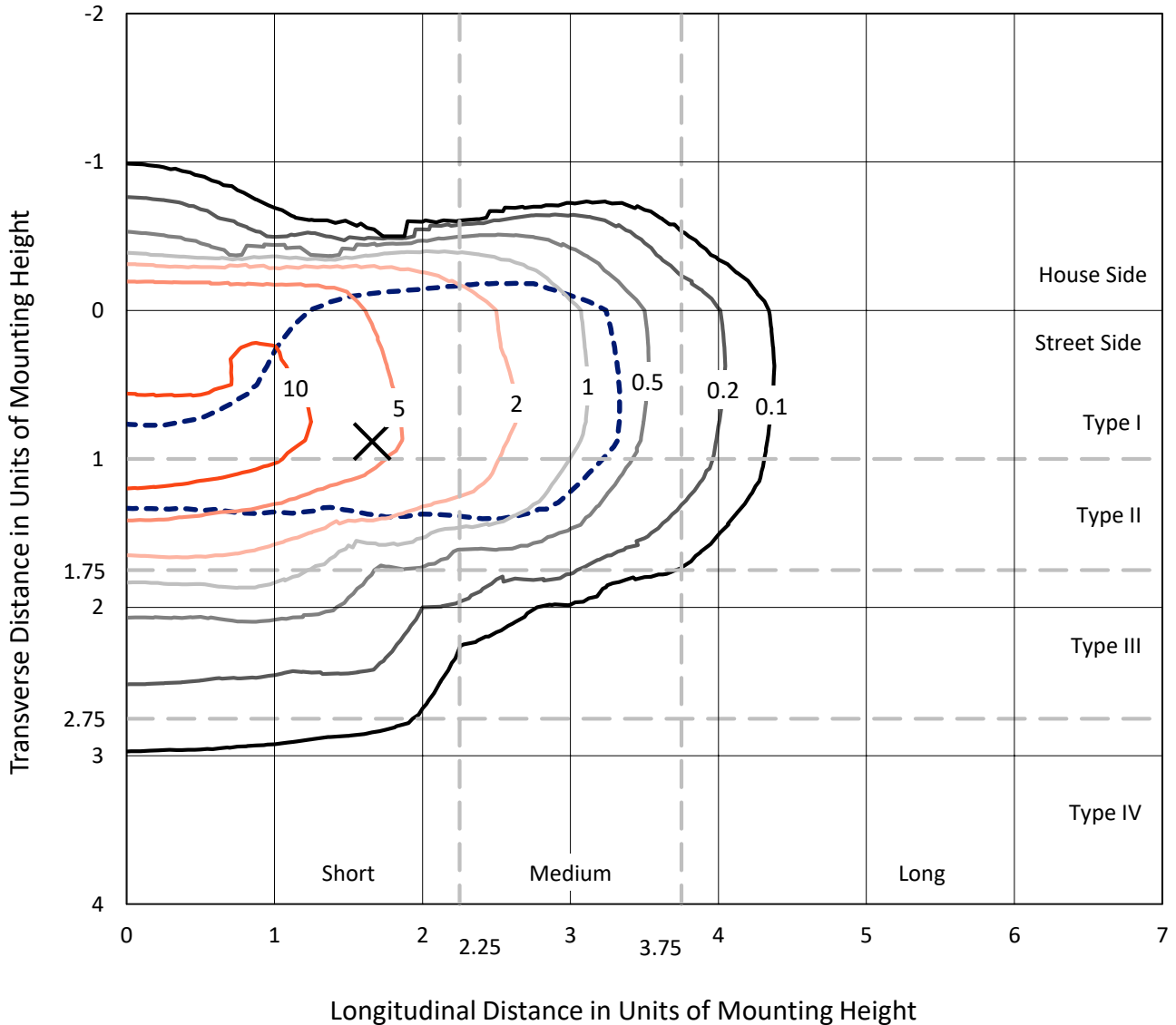
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

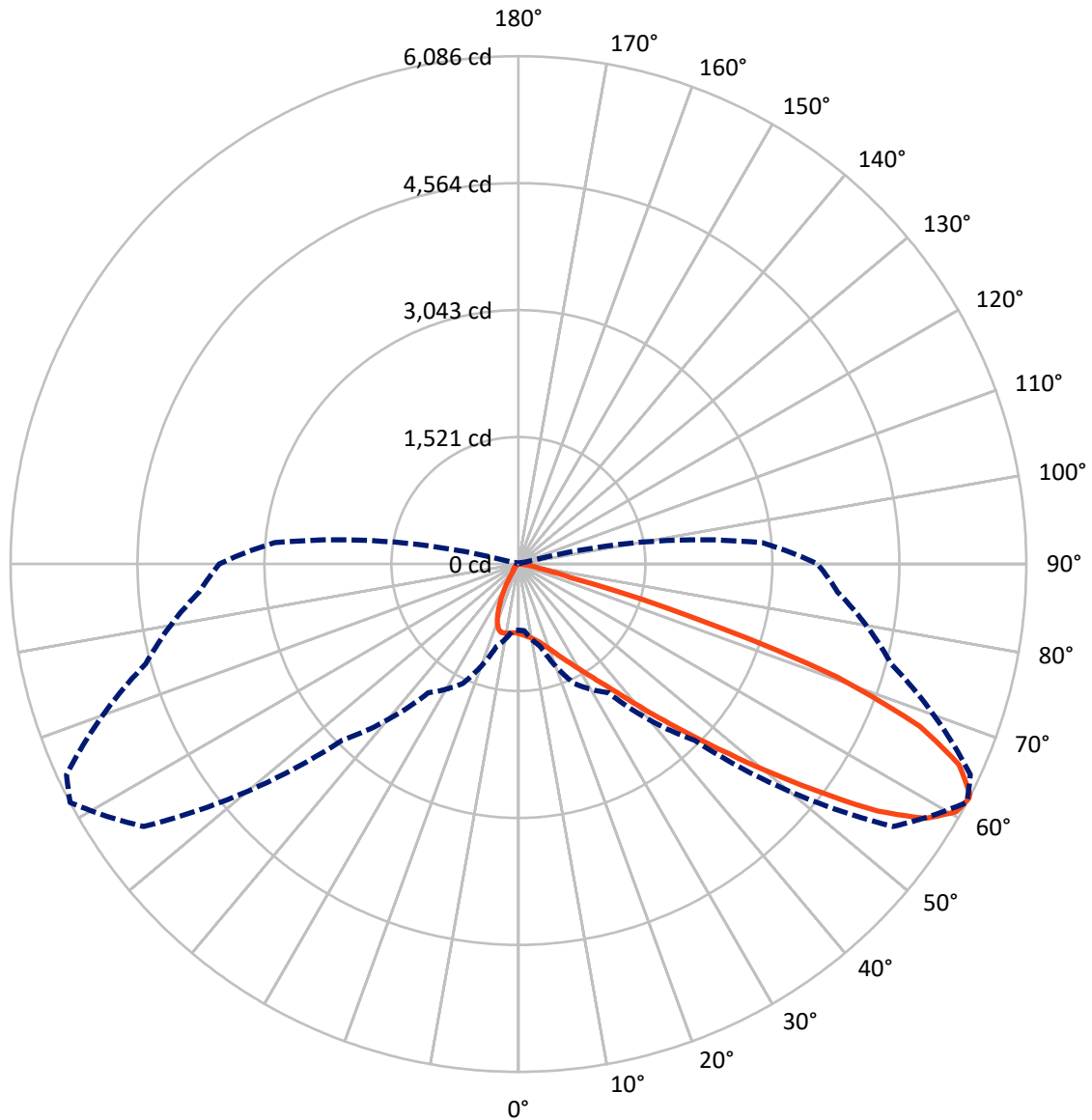
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 15.9 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 62-Deg Lateral - - - Horizontal Cone Through 62-Deg Vertical

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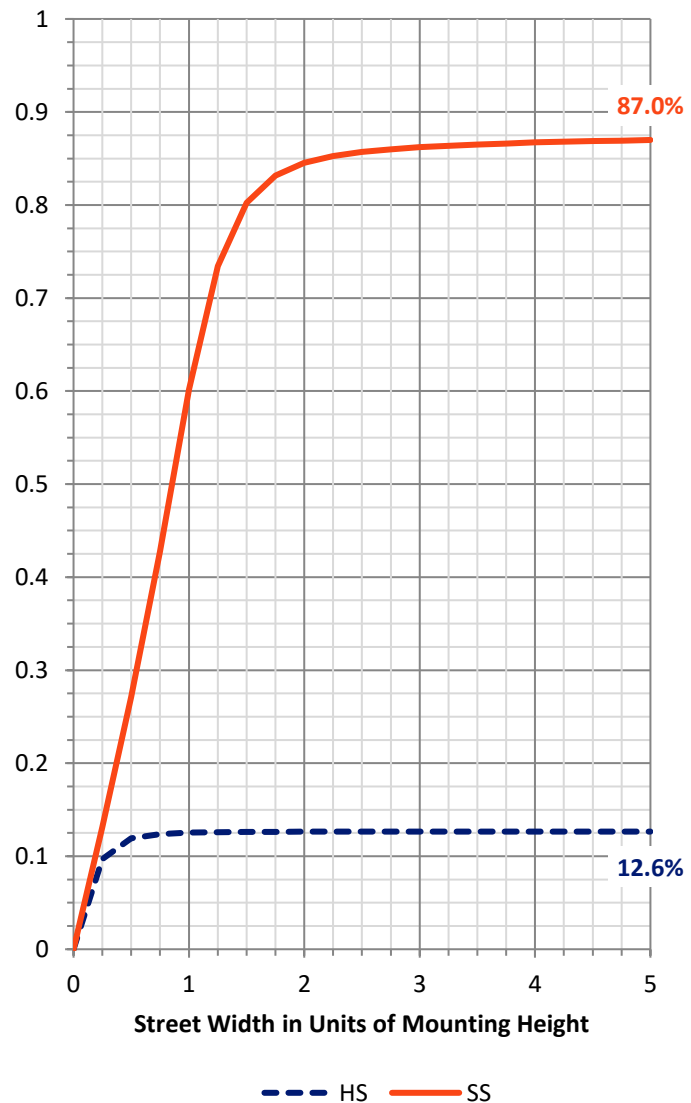
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	885.1	0.0	885.1
	% Fixture	12.8	0.0	12.8
Street Side	Lumens	6037.2	0.0	6037.2
	% Fixture	87.2	0.0	87.2
Total	Lumens	6922.3	0.0	6922.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.2	1.2
10°-20°	224.1	3.2
20°-30°	376.4	5.4
30°-40°	721.5	10.4
40°-50°	1473.6	21.3
50°-60°	1950.1	28.2
60°-70°	1514.9	21.9
70°-80°	546.8	7.9
80°-90°	34.8	0.5
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°	6922.3	100.0
0°-180°	6922.3	100.0



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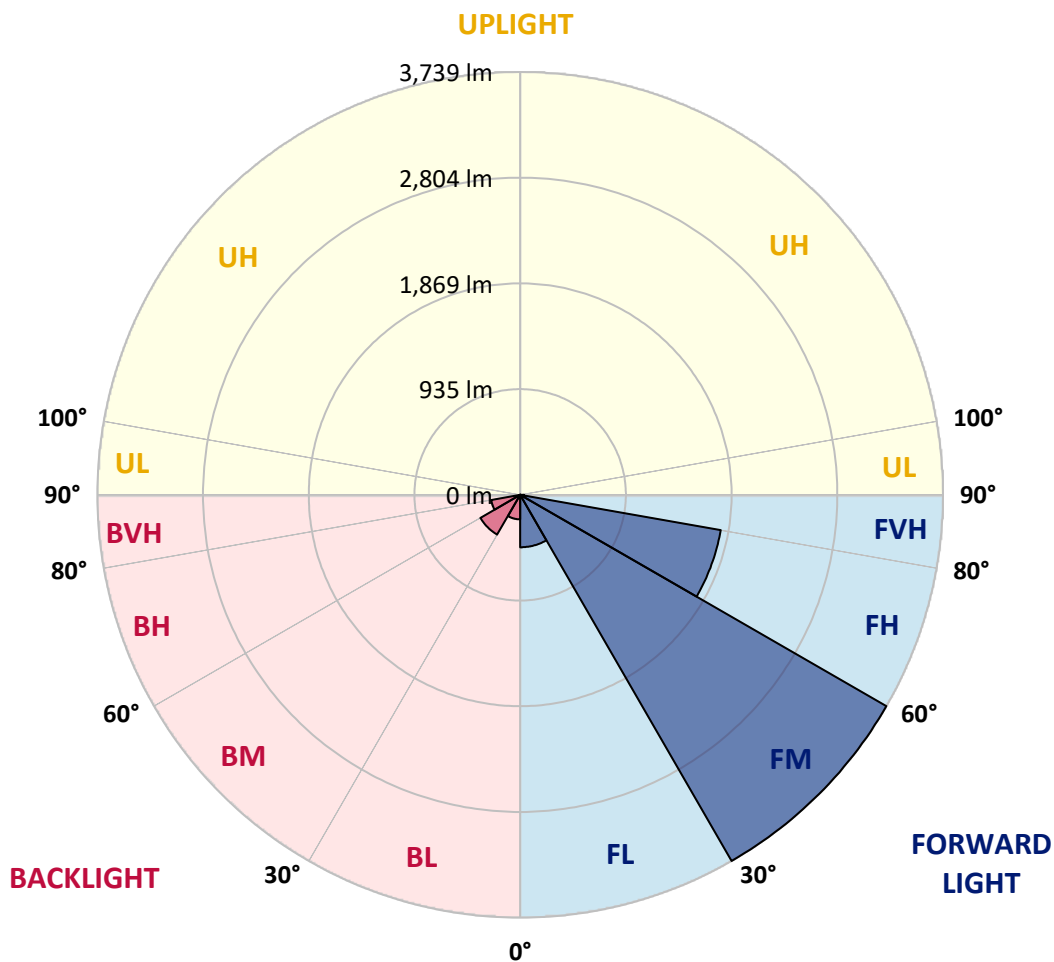
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	464.1	6.7			
FM	(30°-60°)	3738.8	54.0			
FH	(60°-80°)	1801.0	26.0			G2/5000
FVH	(80°-90°)	33.3	0.5			G1/100
BL	(0°-30°)	216.6	3.1	B1/500		
BM	(30°-60°)	406.3	5.9	B1/1000		
BH	(60°-80°)	260.6	3.8	B1/500		G1/500
BVH	(80°-90°)	1.5	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	62°	65°	75°	85°
0°	833.9	833.9	833.9	833.9	833.9	833.9	833.9	833.9	833.9	833.9	833.9
2.5°	856.0	854.3	852.6	850.9	850.9	849.2	847.5	844.1	840.7	837.3	835.5
5°	871.3	869.6	867.9	869.6	867.9	867.9	866.2	862.9	859.4	854.3	849.2
7.5°	883.2	881.6	879.8	881.6	883.2	885.0	886.6	883.2	881.6	874.7	869.6
10°	898.6	896.8	895.2	898.6	898.6	907.1	908.8	907.1	905.3	900.3	891.7
12.5°	920.7	922.4	922.4	925.8	929.1	939.4	942.8	937.7	937.7	930.9	920.7
15°	961.5	961.5	961.5	964.9	966.6	980.2	983.7	978.6	981.9	970.1	959.8
17.5°	1000.7	1002.4	1005.8	1012.6	1012.6	1024.5	1031.3	1031.3	1038.1	1022.7	1009.1
20°	1039.8	1041.5	1046.6	1061.9	1061.9	1077.3	1089.1	1094.3	1101.1	1085.8	1061.9
22.5°	1082.4	1082.4	1090.9	1114.7	1109.6	1140.2	1162.4	1170.9	1177.6	1157.3	1119.8
25°	1147.0	1140.2	1147.0	1169.1	1165.8	1208.3	1249.1	1257.6	1266.1	1242.3	1186.1
27.5°	1269.6	1259.4	1235.5	1237.3	1237.3	1286.6	1344.5	1356.3	1361.4	1341.0	1271.2
30°	1514.6	1514.6	1426.1	1366.6	1327.4	1371.7	1453.3	1473.8	1480.5	1449.9	1358.1
32.5°	1941.8	1941.8	1778.4	1626.9	1478.9	1478.9	1572.5	1609.9	1616.7	1581.0	1473.8
35°	2486.3	2482.9	2237.9	2030.3	1741.0	1632.0	1712.0	1775.0	1795.4	1747.7	1623.5
37.5°	3065.0	3042.9	2779.1	2540.8	2144.3	1877.1	1900.9	1984.3	2003.0	1963.9	1817.5
40°	3534.6	3509.1	3296.4	3097.3	2665.0	2268.5	2173.2	2249.8	2271.9	2217.5	2049.0
42.5°	3960.0	3897.1	3750.8	3607.8	3264.0	2945.8	2535.7	2566.3	2590.1	2532.3	2309.3
45°	4268.2	4171.1	4096.2	4052.0	3869.9	3689.5	3005.4	2944.2	2952.6	2881.1	2593.6
47.5°	4276.7	4208.5	4215.4	4331.1	4406.0	4399.2	3616.3	3398.4	3366.1	3247.1	2896.5
50°	3868.2	3907.4	4031.6	4361.8	4766.7	5011.8	4343.0	3936.3	3839.2	3624.8	3197.6
52.5°	3187.5	3248.7	3481.9	4038.4	4819.5	5415.1	5096.9	4550.6	4377.0	3999.2	3429.1
55°	2496.5	2500.0	2745.0	3311.7	4467.2	5488.3	5699.4	5226.3	4960.7	4283.4	3582.3
57.5°	1717.1	1810.7	2122.1	2503.4	3672.5	5124.2	5925.6	5750.4	5408.3	4458.7	3689.5
60°	1124.9	1130.0	1492.5	1933.3	2500.0	4169.4	5787.9	6027.7	5770.8	4562.6	3762.7
62°	793.0	801.6	1026.2	1579.2	1883.9	2988.3	5483.2	6085.6	5975.1	4623.8	3839.2
62.5°	735.2	741.9	930.9	1490.7	1769.9	2680.3	5374.3	6072.0	6005.6	4644.2	3866.4
65°	539.5	539.5	609.3	1024.5	1296.8	1448.2	4554.0	5801.5	5964.8	4807.6	3968.6
67.5°	417.0	420.3	444.2	631.4	978.6	878.1	2906.7	5192.2	5539.4	5049.3	4026.4
70°	359.1	357.4	374.4	418.7	706.2	583.7	1279.7	4052.0	4639.1	4988.0	3973.8
72.5°	265.5	267.2	306.4	367.5	491.8	379.5	578.6	2151.1	3008.8	3903.9	3405.3
75°	170.2	171.9	216.1	289.3	353.9	248.5	333.6	641.6	1232.1	2164.7	2083.0
77.5°	114.1	117.4	141.3	202.5	309.7	154.9	209.3	268.9	371.0	811.7	747.1
80°	76.6	76.6	90.2	136.2	195.7	129.3	112.3	178.7	192.3	251.9	125.9
82.5°	51.0	51.0	59.5	90.2	127.7	115.7	68.0	97.0	112.3	125.9	44.3
85°	30.6	30.6	40.8	56.2	83.4	64.7	44.3	54.4	57.9	80.0	23.8
87.5°	18.7	17.0	27.2	39.2	44.3	39.2	28.9	28.9	30.6	44.3	11.9
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°	833.9	833.9	833.9	833.9	833.9	833.9	833.9	833.9	833.9	833.9	833.9
2.5°	832.2	830.4	828.8	825.4	820.3	816.8	813.5	810.1	806.7	806.7	811.7
5°	847.5	842.4	835.5	828.8	818.6	811.7	806.7	799.8	796.5	796.5	798.1
7.5°	866.2	861.1	849.2	837.3	821.9	810.1	798.1	782.9	770.9	765.8	770.9
10°	886.6	879.8	862.9	844.1	827.1	796.5	757.3	709.6	668.8	650.1	658.6
12.5°	912.2	903.7	883.2	857.7	818.6	743.7	646.7	536.0	466.3	433.9	440.8
15°	949.6	937.7	908.8	869.6	782.9	621.1	462.9	335.2	270.6	243.4	246.7
17.5°	993.9	978.6	939.4	866.2	690.9	447.5	275.7	195.7	168.5	161.6	161.6
20°	1041.5	1021.1	970.1	840.7	551.4	280.8	171.9	149.8	139.5	134.4	134.4
22.5°	1090.9	1063.7	995.5	781.1	393.1	175.3	141.3	125.9	114.1	108.9	108.9
25°	1150.4	1114.7	1021.1	677.3	250.2	141.3	120.8	105.5	93.6	86.7	88.5
27.5°	1220.2	1174.2	1043.2	548.0	161.6	122.5	100.5	85.1	74.9	71.5	71.5
30°	1293.4	1238.9	1048.3	410.1	131.0	105.5	83.4	69.8	63.0	59.5	59.5
32.5°	1393.8	1322.3	1033.0	272.3	110.6	88.5	69.8	57.9	52.8	51.0	51.0
35°	1526.5	1431.2	997.3	168.5	93.6	73.1	57.9	51.0	45.9	44.3	44.3
37.5°	1695.0	1582.7	934.3	115.7	80.0	59.5	49.3	44.3	40.8	39.2	39.2
40°	1919.7	1766.4	852.6	100.5	68.0	51.0	42.6	39.2	35.7	35.7	35.7
42.5°	2157.9	1989.4	747.1	88.5	57.9	44.3	37.4	34.1	32.3	30.6	30.6
45°	2418.3	2217.5	616.0	78.3	49.3	39.2	34.1	28.9	27.2	27.2	27.2
47.5°	2677.0	2452.3	473.1	68.0	42.6	34.1	28.9	25.6	23.8	22.1	22.1
50°	2942.4	2665.0	347.2	59.5	37.4	30.6	25.6	22.1	18.7	17.0	17.0
52.5°	3134.7	2792.7	253.6	51.0	32.3	25.6	20.5	17.0	13.6	11.9	11.9
55°	3276.0	2870.9	185.5	42.6	28.9	22.1	17.0	13.6	10.2	10.2	8.5
57.5°	3386.6	2908.4	139.5	37.4	25.6	18.7	13.6	10.2	8.5	6.9	6.9
60°	3471.7	2910.1	103.8	30.6	22.1	15.3	10.2	6.9	5.1	5.1	5.1
62°	3584.0	2932.2	85.1	25.6	20.5	13.6	8.5	5.1	3.4	1.7	1.7
62.5°	3616.3	2940.7	81.7	25.6	18.7	11.9	6.9	5.1	3.4	1.7	1.7
65°	3766.1	2956.0	63.0	20.5	15.3	10.2	5.1	3.4	0.0	0.0	0.0
67.5°	3902.3	2932.2	45.9	15.3	11.9	6.9	5.1	1.7	0.0	0.0	0.0
70°	3888.6	2768.8	32.3	10.2	8.5	5.1	3.4	0.0	0.0	0.0	0.0
72.5°	3204.5	2072.8	22.1	8.5	5.1	3.4	1.7	0.0	0.0	0.0	0.0
75°	1934.9	907.1	15.3	5.1	5.1	3.4	1.7	0.0	0.0	0.0	0.0
77.5°	634.7	328.5	10.2	3.4	3.4	1.7	1.7	0.0	0.0	0.0	0.0
80°	103.8	54.4	5.1	3.4	3.4	1.7	1.7	0.0	0.0	0.0	0.0
82.5°	32.3	13.6	3.4	3.4	1.7	1.7	0.0	0.0	0.0	0.0	0.0
85°	11.9	5.1	3.4	3.4	1.7	1.7	0.0	0.0	0.0	0.0	0.0
87.5°	5.1	3.4	3.4	3.4	1.7	1.7	0.0	0.0	0.0	0.0	0.0
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)