

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: P257699

Luminaire Tested: **ARCH-AF24-90-D-U-T2U-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P257699
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-AF24-90-D-U-T2U-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 1180mA 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: 6851.7 lumens
Efficiency: N/A
Efficacy: 72.9 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 - G1

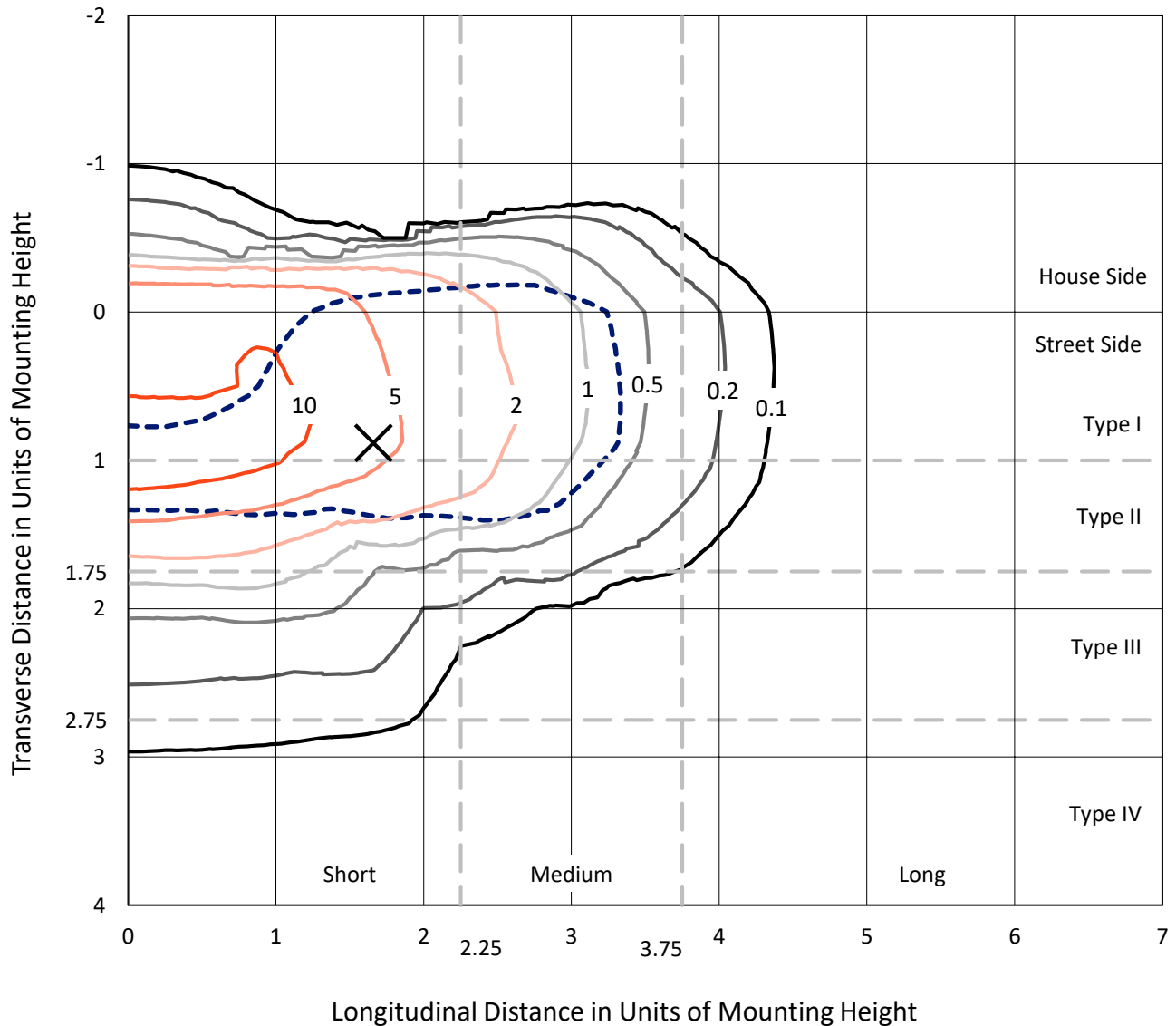
Input Watts (W): 94
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

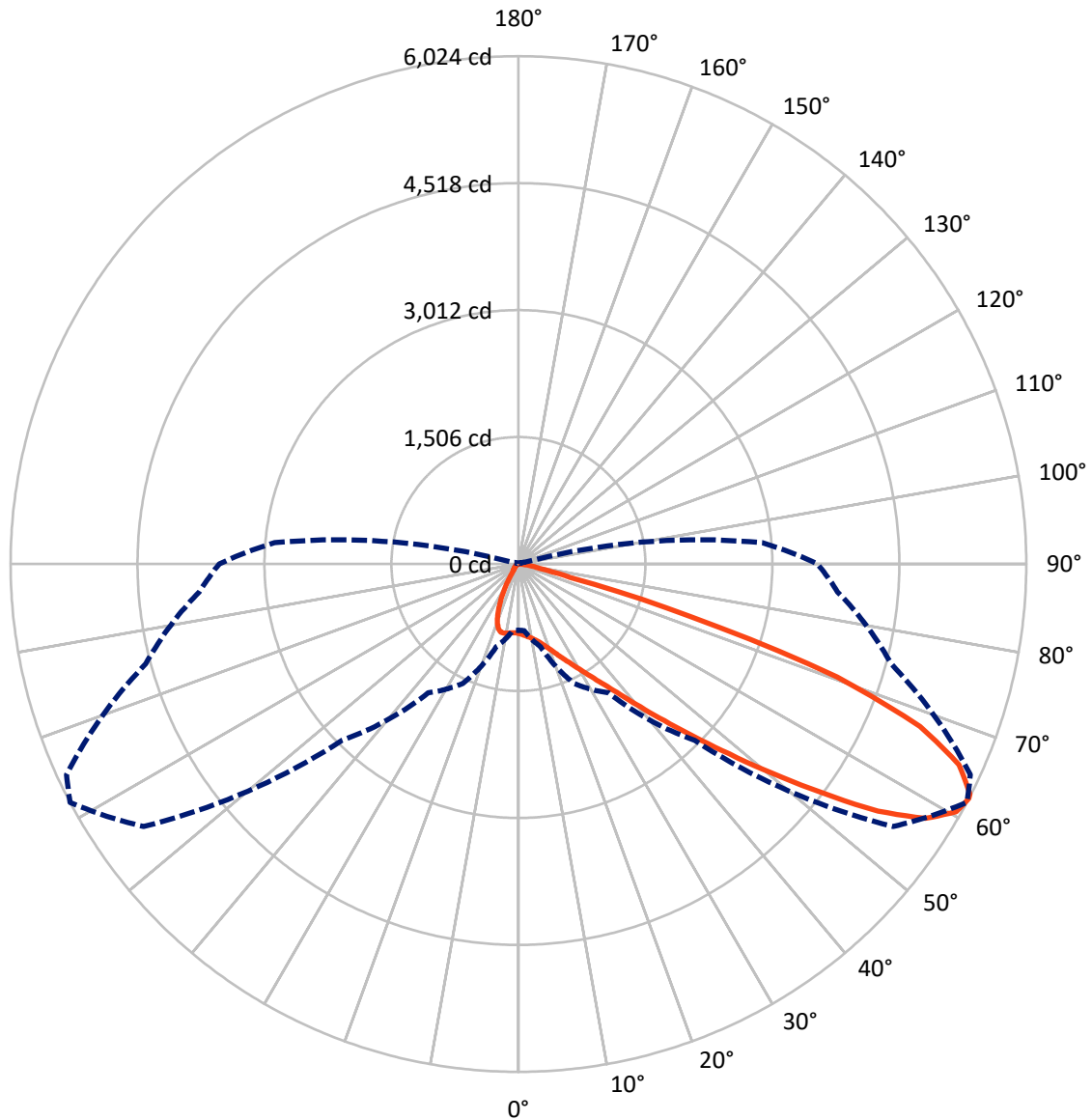
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 15.8 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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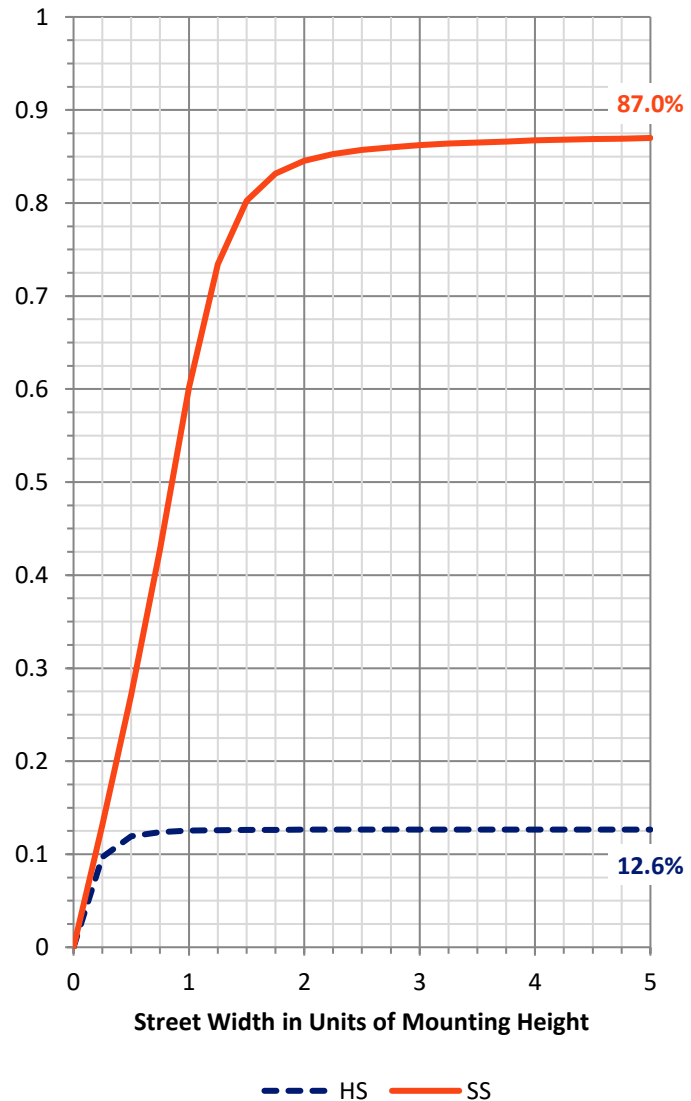
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	876.1	0.0	876.1
	% Fixture	12.8	0.0	12.8
Street Side	Lumens	5975.7	0.0	5975.7
	% Fixture	87.2	0.0	87.2
Total	Lumens	6851.7	0.0	6851.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.4	1.2
10°-20°	221.8	3.2
20°-30°	372.5	5.4
30°-40°	714.1	10.4
40°-50°	1458.6	21.3
50°-60°	1930.2	28.2
60°-70°	1499.4	21.9
70°-80°	541.2	7.9
80°-90°	34.5	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°	6851.7	100.0
0°-180°	6851.7	100.0

Coefficient of Utilization



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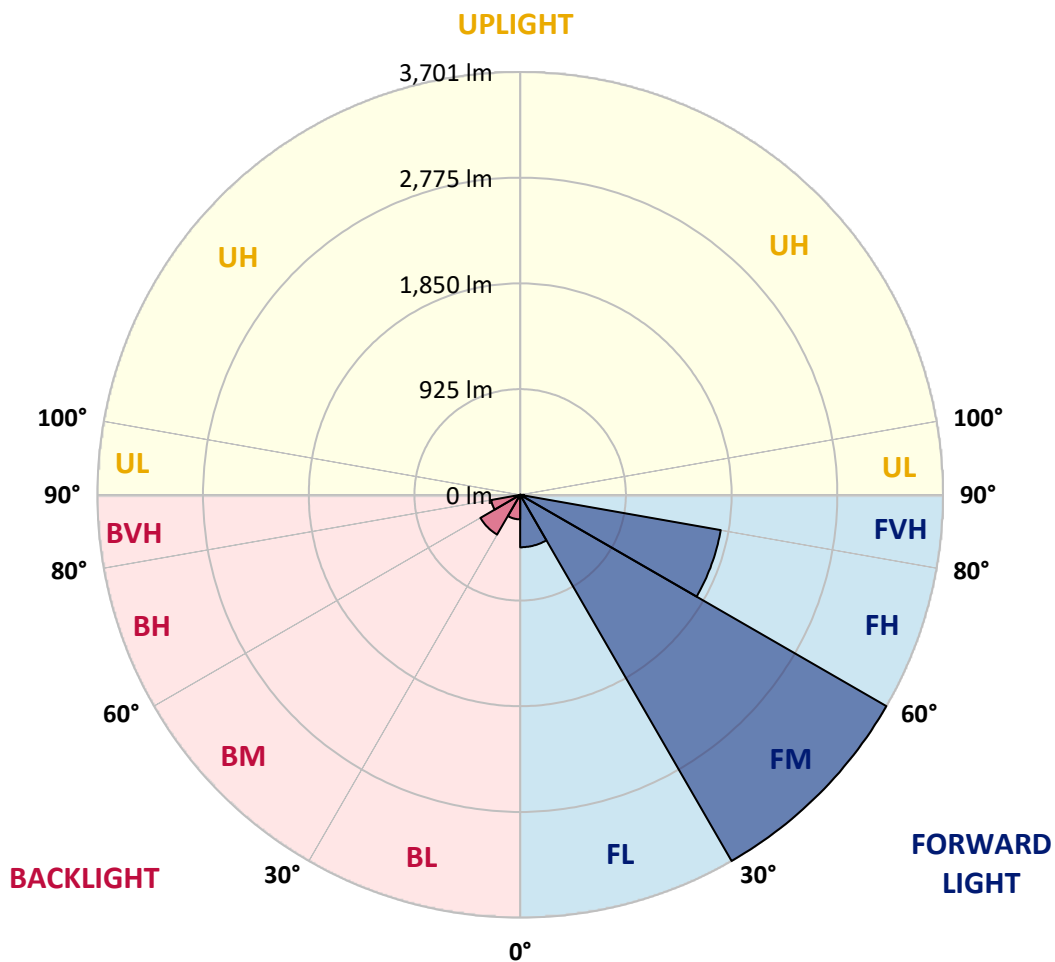
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	459.4	6.7			
FM	(30°-60°)	3700.6	54.0			
FH	(60°-80°)	1782.7	26.0			G1/1800
FVH	(80°-90°)	33.0	0.5			G1/100
BL	(0°-30°)	214.4	3.1	B1/500		
BM	(30°-60°)	402.2	5.9	B1/1000		
BH	(60°-80°)	258.0	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-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	62°	65°	75°	85°
0°	825.4	825.4	825.4	825.4	825.4	825.4	825.4	825.4	825.4	825.4	825.4
2.5°	847.3	845.6	843.9	842.2	842.2	840.6	838.8	835.4	832.1	828.8	827.1
5°	862.4	860.7	859.1	860.7	859.1	859.1	857.3	854.1	850.7	845.6	840.6
7.5°	874.2	872.6	870.8	872.6	874.2	876.0	877.6	874.2	872.6	865.8	860.7
10°	889.4	887.7	886.0	889.4	889.4	897.8	899.5	897.8	896.1	891.1	882.6
12.5°	911.2	913.0	913.0	916.4	919.7	929.9	933.1	928.1	928.1	921.4	911.2
15°	951.8	951.8	951.8	955.1	956.8	970.3	973.6	968.5	971.9	960.1	950.0
17.5°	990.4	992.2	995.5	1002.3	1002.3	1014.1	1020.8	1020.8	1027.6	1012.3	998.9
20°	1029.2	1030.9	1035.9	1051.1	1051.1	1066.2	1078.1	1083.1	1089.9	1074.7	1051.1
22.5°	1071.3	1071.3	1079.7	1103.4	1098.2	1128.6	1150.5	1158.9	1165.7	1145.4	1108.4
25°	1135.3	1128.6	1135.3	1157.3	1153.9	1195.9	1236.3	1244.8	1253.2	1229.7	1174.0
27.5°	1256.6	1246.5	1222.9	1224.6	1224.6	1273.5	1330.8	1342.5	1347.5	1327.4	1258.3
30°	1499.1	1499.1	1411.6	1352.6	1313.9	1357.7	1438.5	1458.7	1465.5	1435.2	1344.2
32.5°	1921.9	1921.9	1760.3	1610.3	1463.7	1463.7	1556.4	1593.5	1600.2	1564.8	1458.7
35°	2461.0	2457.6	2215.1	2009.6	1723.2	1615.3	1694.5	1756.9	1777.1	1729.9	1607.0
37.5°	3033.7	3011.8	2750.7	2514.9	2122.4	1858.0	1881.5	1964.1	1982.6	1943.8	1799.0
40°	3498.6	3473.3	3262.8	3065.7	2637.9	2245.4	2151.1	2226.9	2248.8	2194.8	2028.1
42.5°	3919.7	3857.3	3712.5	3571.0	3230.8	2915.8	2509.8	2540.2	2563.7	2506.4	2285.8
45°	4224.6	4128.6	4054.5	4010.7	3830.4	3651.9	2974.7	2914.1	2922.5	2851.8	2567.1
47.5°	4233.0	4165.7	4172.4	4286.9	4361.0	4354.3	3579.4	3363.9	3331.9	3213.9	2866.9
50°	3828.7	3867.5	3990.4	4317.3	4718.2	4960.7	4298.7	3896.1	3800.2	3587.9	3165.1
52.5°	3155.0	3215.6	3446.4	3997.2	4770.3	5360.0	5044.9	4504.3	4332.4	3958.4	3394.2
55°	2471.0	2474.4	2717.1	3277.9	4421.7	5432.4	5641.3	5173.0	4910.2	4239.7	3545.8
57.5°	1699.6	1792.2	2100.5	2477.8	3635.1	5071.9	5865.3	5691.8	5353.2	4413.2	3651.9
60°	1113.4	1118.5	1477.2	1913.5	2474.4	4126.9	5728.8	5966.4	5712.0	4516.0	3724.4
62°	784.9	793.4	1015.7	1563.2	1864.6	2957.9	5427.3	6023.5	5914.1	4576.7	3800.2
62.5°	727.7	734.4	921.4	1475.6	1751.8	2653.0	5319.4	6010.1	5944.4	4596.8	3827.1
65°	534.0	534.0	603.0	1014.1	1283.6	1433.5	4507.6	5742.3	5904.0	4758.6	3928.1
67.5°	412.7	416.0	439.7	624.9	968.5	869.2	2877.0	5139.2	5482.9	4997.7	3985.4
70°	355.4	353.7	370.6	414.4	699.1	577.8	1266.7	4010.7	4591.8	4937.1	3933.1
72.5°	262.8	264.4	303.2	363.9	486.8	375.6	572.8	2129.2	2978.1	3864.1	3370.6
75°	168.5	170.1	213.9	286.3	350.4	245.9	330.1	635.0	1219.6	2142.6	2061.8
77.5°	112.8	116.2	139.8	200.5	306.6	153.2	207.1	266.2	367.2	803.5	739.5
80°	75.8	75.8	89.3	134.7	193.7	128.0	111.2	176.9	190.4	249.3	124.7
82.5°	50.5	50.5	58.9	89.3	126.3	114.6	67.4	96.1	111.2	124.7	43.8
85°	30.3	30.3	40.4	55.5	82.6	64.0	43.8	53.9	57.3	79.2	23.6
87.5°	18.5	16.9	26.9	38.8	43.8	38.8	28.6	28.6	30.3	43.8	11.8
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°	825.4	825.4	825.4	825.4	825.4	825.4	825.4	825.4	825.4	825.4	825.4
2.5°	823.7	822.0	820.3	816.9	811.9	808.5	805.2	801.8	798.4	798.4	803.5
5°	838.8	833.8	827.1	820.3	810.2	803.5	798.4	791.7	788.3	788.3	790.0
7.5°	857.3	852.3	840.6	828.8	813.6	801.8	790.0	774.9	763.0	758.0	763.0
10°	877.6	870.8	854.1	835.4	818.7	788.3	749.6	702.5	662.0	643.4	651.9
12.5°	902.9	894.5	874.2	848.9	810.2	736.1	640.1	530.6	461.6	429.5	436.3
15°	939.9	928.1	899.5	860.7	774.9	614.8	458.2	331.8	267.8	240.9	244.3
17.5°	983.7	968.5	929.9	857.3	683.8	443.0	272.9	193.7	166.7	160.0	160.0
20°	1030.9	1010.7	960.1	832.1	545.7	277.9	170.1	148.2	138.1	133.1	133.1
22.5°	1079.7	1052.8	985.4	773.1	389.1	173.5	139.8	124.7	112.8	107.8	107.8
25°	1138.6	1103.4	1010.7	670.4	247.7	139.8	119.6	104.4	92.7	85.9	87.6
27.5°	1207.8	1162.3	1032.6	542.4	160.0	121.3	99.4	84.2	74.2	70.8	70.8
30°	1280.2	1226.3	1037.6	405.9	129.7	104.4	82.6	69.0	62.3	58.9	58.9
32.5°	1379.6	1308.9	1022.4	269.5	109.5	87.6	69.0	57.3	52.2	50.5	50.5
35°	1511.0	1416.6	987.0	166.7	92.7	72.4	57.3	50.5	45.5	43.8	43.8
37.5°	1677.7	1566.5	924.7	114.6	79.2	58.9	48.9	43.8	40.4	38.8	38.8
40°	1900.0	1748.4	843.9	99.4	67.4	50.5	42.1	38.8	35.4	35.4	35.4
42.5°	2135.9	1969.1	739.5	87.6	57.3	43.8	37.0	33.7	32.0	30.3	30.3
45°	2393.6	2194.8	609.8	77.4	48.9	38.8	33.7	28.6	26.9	26.9	26.9
47.5°	2649.6	2427.3	468.3	67.4	42.1	33.7	28.6	25.3	23.6	21.9	21.9
50°	2912.4	2637.9	343.6	58.9	37.0	30.3	25.3	21.9	18.5	16.9	16.9
52.5°	3102.7	2764.2	251.0	50.5	32.0	25.3	20.3	16.9	13.5	11.8	11.8
55°	3242.5	2841.7	183.6	42.1	28.6	21.9	16.9	13.5	10.1	10.1	8.4
57.5°	3352.0	2878.7	138.1	37.0	25.3	18.5	13.5	10.1	8.4	6.8	6.8
60°	3436.3	2880.4	102.7	30.3	21.9	15.1	10.1	6.8	5.0	5.0	5.0
62°	3547.5	2902.3	84.2	25.3	20.3	13.5	8.4	5.0	3.4	1.6	1.6
62.5°	3579.4	2910.7	80.8	25.3	18.5	11.8	6.8	5.0	3.4	1.6	1.6
65°	3727.6	2925.8	62.3	20.3	15.1	10.1	5.0	3.4	0.0	0.0	0.0
67.5°	3862.5	2902.3	45.5	15.1	11.8	6.8	5.0	1.6	0.0	0.0	0.0
70°	3849.0	2740.6	32.0	10.1	8.4	5.0	3.4	0.0	0.0	0.0	0.0
72.5°	3171.9	2051.6	21.9	8.4	5.0	3.4	1.6	0.0	0.0	0.0	0.0
75°	1915.2	897.8	15.1	5.0	5.0	3.4	1.6	0.0	0.0	0.0	0.0
77.5°	628.3	325.1	10.1	3.4	3.4	1.6	1.6	0.0	0.0	0.0	0.0
80°	102.7	53.9	5.0	3.4	3.4	1.6	1.6	0.0	0.0	0.0	0.0
82.5°	32.0	13.5	3.4	3.4	1.6	1.6	0.0	0.0	0.0	0.0	0.0
85°	11.8	5.0	3.4	3.4	1.6	1.6	0.0	0.0	0.0	0.0	0.0
87.5°	5.0	3.4	3.4	3.4	1.6	1.6	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)