

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: P214958

Luminaire Tested: **ARCH-AF24-90-D-U-T4W-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214958
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)
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-T4W-7050-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 1180mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6914 lumens
Efficiency: N/A
Efficacy: 73.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type IV - Medium - 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

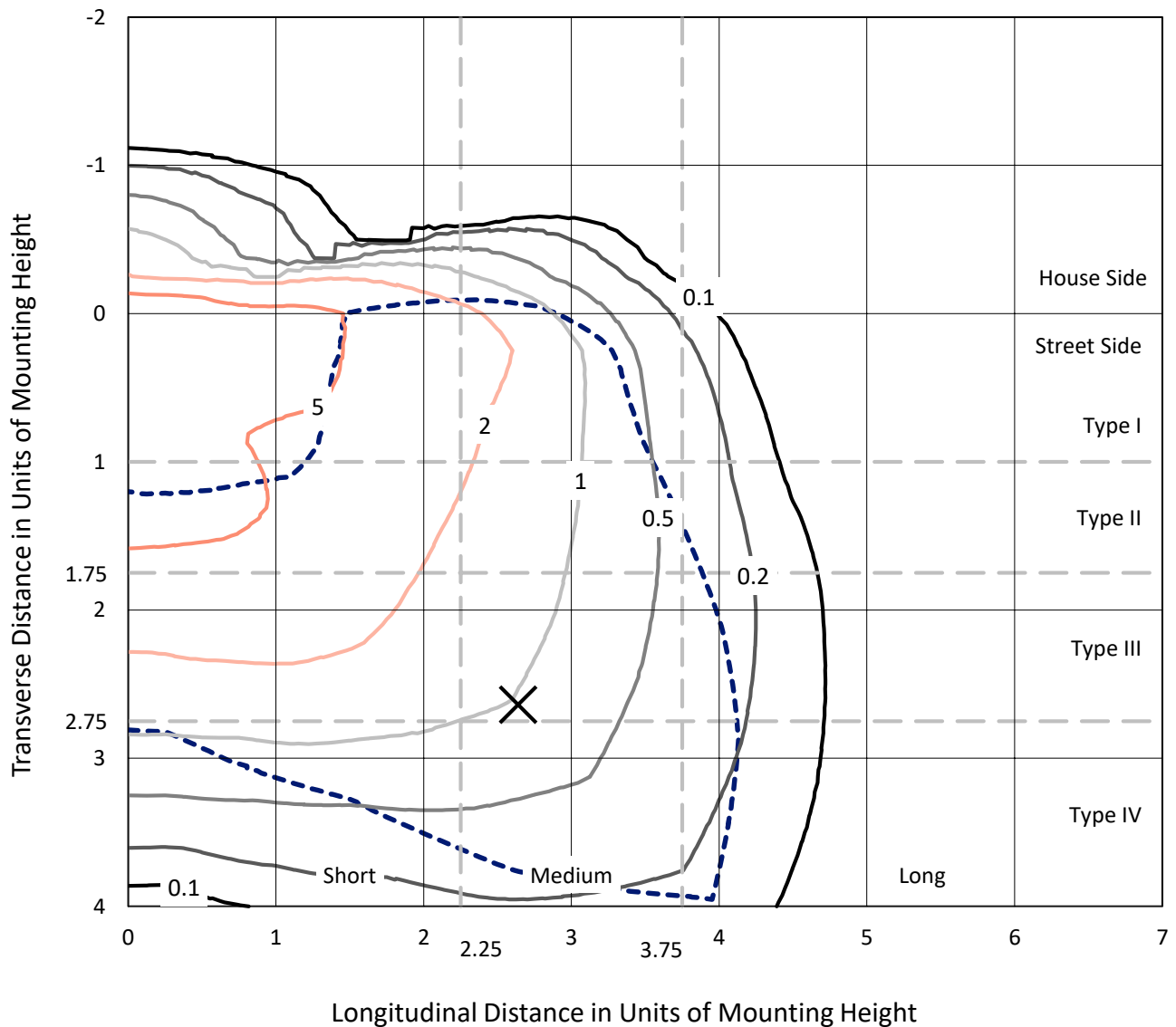


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

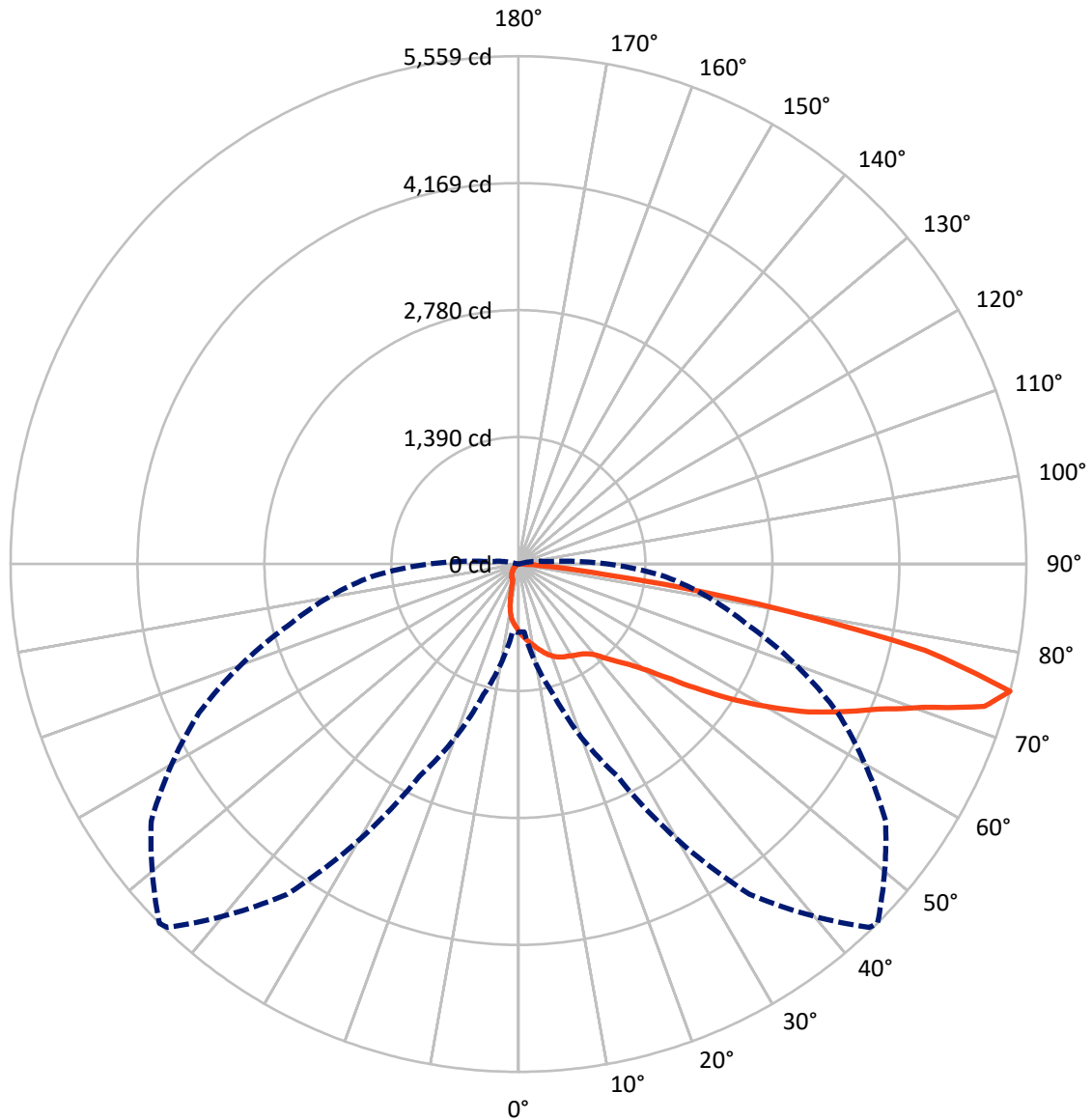


Based on 10 foot mounting height. Maximum calculated value = 9.9 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical



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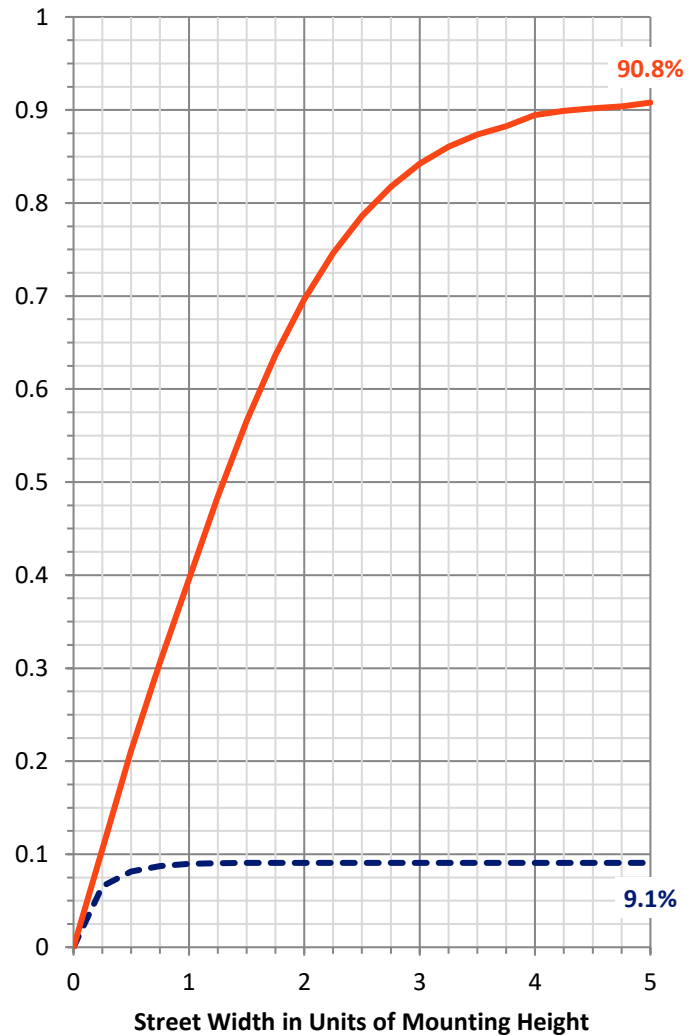
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	632.4	0.0	632.4
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	6281.6	0.0	6281.6
	% Fixture	90.9	0.0	90.9
Total	Lumens	6914.0	0.0	6914.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.8	1.0
10°-20°	197.7	2.9
20°-30°	327.5	4.7
30°-40°	473.9	6.9
40°-50°	776.0	11.2
50°-60°	1382.7	20.0
60°-70°	2032.7	29.4
70°-80°	1533.5	22.2
80°-90°	120.3	1.7
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°	6914.0	100.0
0°-180°	6914.0	100.0



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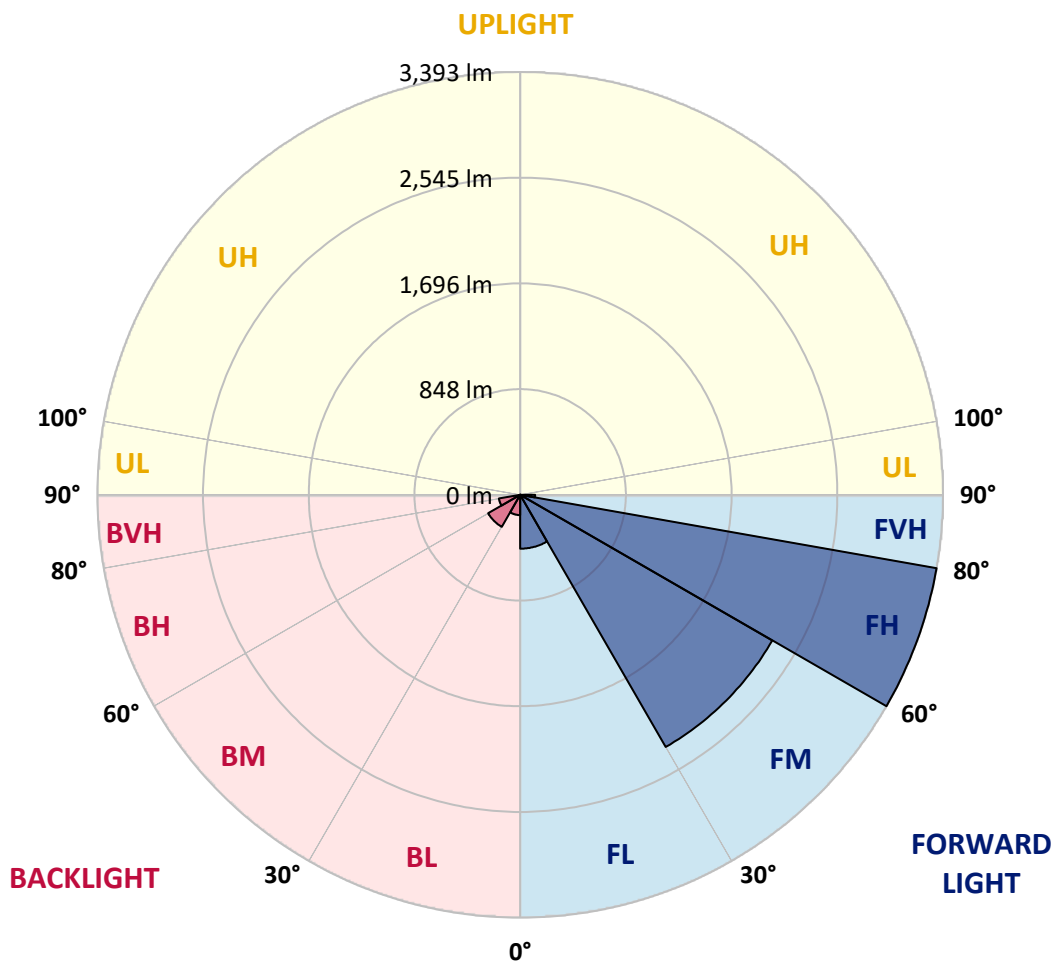
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	432.5	6.3			
FM	(30°-60°)	2336.2	33.8			
FH	(60°-80°)	3392.9	49.1			G2/5000
FVH	(80°-90°)	120.0	1.7			G2/225
BL	(0°-30°)	162.5	2.4	B1/500		
BM	(30°-60°)	296.4	4.3	B1/1000		
BH	(60°-80°)	173.2	2.5	B1/500		G1/500
BVH	(80°-90°)	0.3	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 IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	739.5	739.5	739.5	739.5	739.5	739.5	739.5	739.5	739.5	739.5	739.5
2.5°	803.3	803.3	801.7	800.0	791.8	783.7	782.0	777.1	762.4	752.6	742.8
5°	870.4	872.0	868.7	860.6	842.6	824.6	822.9	809.8	782.0	762.4	741.1
7.5°	934.2	937.5	929.3	914.5	893.3	867.1	865.5	840.9	804.9	777.1	746.0
10°	988.2	988.2	976.7	958.7	935.8	908.0	904.7	876.9	836.0	801.7	760.8
12.5°	1047.1	1045.4	1029.1	1004.5	978.4	952.2	950.5	916.2	876.9	832.7	782.0
15°	1101.1	1097.8	1076.5	1053.6	1025.8	998.0	996.3	962.0	921.1	868.7	813.1
17.5°	1130.5	1128.9	1109.2	1086.3	1063.4	1042.2	1040.5	1004.5	960.4	906.4	844.2
20°	1135.4	1137.0	1120.7	1101.1	1088.0	1076.5	1076.5	1043.8	996.3	939.1	876.9
22.5°	1137.0	1142.0	1130.5	1104.3	1101.1	1102.7	1106.0	1079.8	1030.7	976.7	911.3
25°	1148.5	1155.0	1146.9	1115.8	1112.5	1124.0	1127.2	1115.8	1071.6	1017.6	950.5
27.5°	1171.4	1177.9	1171.4	1132.1	1127.2	1138.7	1142.0	1148.5	1115.8	1056.9	991.4
30°	1217.2	1218.8	1204.1	1155.0	1145.2	1160.0	1164.9	1182.9	1156.7	1094.5	1030.7
32.5°	1297.4	1281.0	1236.8	1171.4	1163.2	1179.6	1184.5	1204.1	1194.3	1130.5	1071.6
35°	1461.0	1375.9	1274.5	1194.3	1186.1	1202.5	1209.0	1236.8	1241.8	1181.2	1122.3
37.5°	1459.3	1382.5	1362.8	1238.5	1227.0	1238.5	1246.7	1281.0	1300.7	1248.3	1195.9
40°	1562.4	1529.7	1529.7	1321.9	1284.3	1300.7	1308.8	1343.2	1377.5	1336.6	1282.7
42.5°	1886.4	1865.1	1842.2	1482.3	1364.5	1410.3	1415.2	1436.4	1477.3	1464.3	1400.4
45°	2247.9	2228.3	2139.9	1753.8	1501.9	1510.1	1521.5	1555.9	1614.8	1639.3	1564.1
47.5°	2531.0	2511.3	2436.1	2081.0	1716.2	1644.2	1644.2	1711.3	1802.9	1865.1	1793.1
50°	2758.4	2735.5	2689.6	2429.5	2068.0	1837.3	1827.5	1906.0	2041.8	2138.3	2089.2
52.5°	2979.2	2912.1	2884.3	2789.4	2465.5	2117.0	2090.9	2146.5	2334.6	2454.1	2413.2
55°	3126.5	3116.7	3087.2	3119.9	2882.7	2457.3	2434.4	2445.9	2681.5	2761.6	2710.9
57.5°	3263.9	3262.3	3327.7	3479.9	3337.5	2846.7	2810.7	2792.7	3016.9	2997.2	3041.4
60°	3434.0	3404.6	3556.7	3774.3	3754.7	3226.3	3185.4	3149.4	3273.7	3218.1	3437.3
62.5°	3442.2	3434.0	3743.3	4055.7	4168.6	3612.4	3564.9	3435.7	3497.9	3434.0	3815.2
65°	3129.7	3170.6	3821.8	4204.6	4515.5	3951.0	3893.8	3692.5	3697.4	3654.9	4260.2
67.5°	3059.4	3080.7	3605.8	4365.0	4765.8	4293.0	4239.0	3988.7	3929.8	3933.0	4523.6
70°	2884.3	2917.1	3337.5	4353.5	4963.7	4749.4	4695.4	4423.9	4281.5	4122.8	4320.8
72.5°	2203.7	2259.4	2812.4	3816.9	4909.8	5346.6	5331.9	4975.2	4422.2	3785.8	3268.8
75°	746.0	744.4	1477.3	2563.7	4410.8	5529.8	5559.3	4906.5	3857.8	2611.1	1623.0
77.5°	160.3	162.0	304.3	1038.9	2930.1	4440.2	4553.1	3700.7	2488.4	1163.2	371.4
80°	78.5	80.2	126.0	274.9	1171.4	2490.1	2666.7	1902.7	919.5	232.3	62.2
82.5°	39.3	40.9	65.4	145.6	433.6	885.1	945.6	700.2	263.4	130.9	31.1
85°	14.7	14.7	32.7	86.7	198.0	207.8	255.2	202.9	158.7	106.3	8.2
87.5°	3.3	3.3	18.0	42.5	88.3	65.4	65.4	62.2	96.5	72.0	3.3
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°	739.5	739.5	739.5	739.5	739.5	739.5	739.5	739.5	739.5	739.5	739.5
2.5°	737.9	731.3	719.9	708.4	700.2	690.4	685.5	680.6	679.0	677.3	680.6
5°	729.7	719.9	698.6	680.6	664.2	651.1	641.3	631.5	626.6	623.3	625.0
7.5°	729.7	714.9	683.9	656.1	629.9	602.1	574.2	553.0	536.6	526.8	528.4
10°	737.9	718.2	677.3	639.7	590.6	531.7	471.2	425.4	394.3	376.3	376.3
12.5°	755.9	729.7	679.0	620.1	536.6	433.6	341.9	286.3	263.4	250.3	252.0
15°	780.4	749.3	687.1	593.9	461.4	322.3	238.9	202.9	202.9	206.1	207.8
17.5°	808.2	773.8	693.7	554.6	364.8	230.7	188.1	184.9	189.8	198.0	198.0
20°	836.0	798.4	697.0	492.4	273.2	183.2	178.3	178.3	181.6	189.8	191.4
22.5°	870.4	829.5	693.7	415.6	204.5	173.4	171.8	171.8	171.8	181.6	181.6
25°	906.4	865.5	680.6	333.8	173.4	166.9	165.2	163.6	163.6	171.8	173.4
27.5°	947.3	903.1	649.5	255.2	163.6	160.3	158.7	155.4	155.4	162.0	162.0
30°	988.2	945.6	602.1	193.1	155.4	153.8	150.5	147.2	144.0	150.5	150.5
32.5°	1032.3	989.8	539.9	153.8	144.0	144.0	142.3	137.4	134.2	137.4	139.1
35°	1091.2	1040.5	469.5	134.2	129.2	129.2	129.2	127.6	121.1	124.3	124.3
37.5°	1169.8	1110.9	387.7	124.3	117.8	114.5	114.5	114.5	109.6	111.3	111.3
40°	1269.6	1192.7	309.2	116.2	109.6	101.4	98.2	99.8	96.5	96.5	94.9
42.5°	1405.4	1281.0	232.3	109.6	103.1	91.6	85.1	83.4	80.2	78.5	78.5
45°	1600.0	1389.0	166.9	103.1	98.2	80.2	73.6	68.7	60.5	55.6	55.6
47.5°	1852.0	1511.7	124.3	96.5	93.3	70.3	62.2	52.4	40.9	37.6	37.6
50°	2159.6	1649.1	104.7	86.7	85.1	62.2	49.1	34.4	22.9	19.6	21.3
52.5°	2459.0	1778.4	93.3	76.9	75.3	54.0	36.0	18.0	9.8	9.8	9.8
55°	2710.9	1870.0	85.1	68.7	65.4	42.5	19.6	8.2	4.9	4.9	4.9
57.5°	2938.3	1922.3	76.9	60.5	52.4	29.4	8.2	3.3	3.3	1.6	1.6
60°	3146.1	1953.4	67.1	52.4	40.9	16.4	3.3	1.6	1.6	0.0	0.0
62.5°	3350.6	1976.3	57.3	42.5	31.1	6.5	1.6	1.6	0.0	0.0	0.0
65°	3506.0	1968.2	45.8	34.4	19.6	3.3	1.6	0.0	0.0	0.0	0.0
67.5°	3501.1	1856.9	34.4	26.2	9.8	1.6	0.0	0.0	0.0	0.0	0.0
70°	3131.4	1564.1	22.9	16.4	3.3	1.6	0.0	0.0	0.0	0.0	0.0
72.5°	2221.7	1002.9	14.7	9.8	1.6	0.0	0.0	0.0	0.0	0.0	0.0
75°	978.4	304.3	8.2	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	191.4	70.3	4.9	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	45.8	8.2	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	19.6	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.9	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.3	1.6	0.0	0.0	0.0	0.0	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)