

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: P231028

Luminaire Tested: **ARCH-M-AF48-90-D-U-T2R**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231028
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-90-D-U-T2R
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 600mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12667.2 lumens
Efficiency: N/A
Efficacy: 137.7 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 92
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

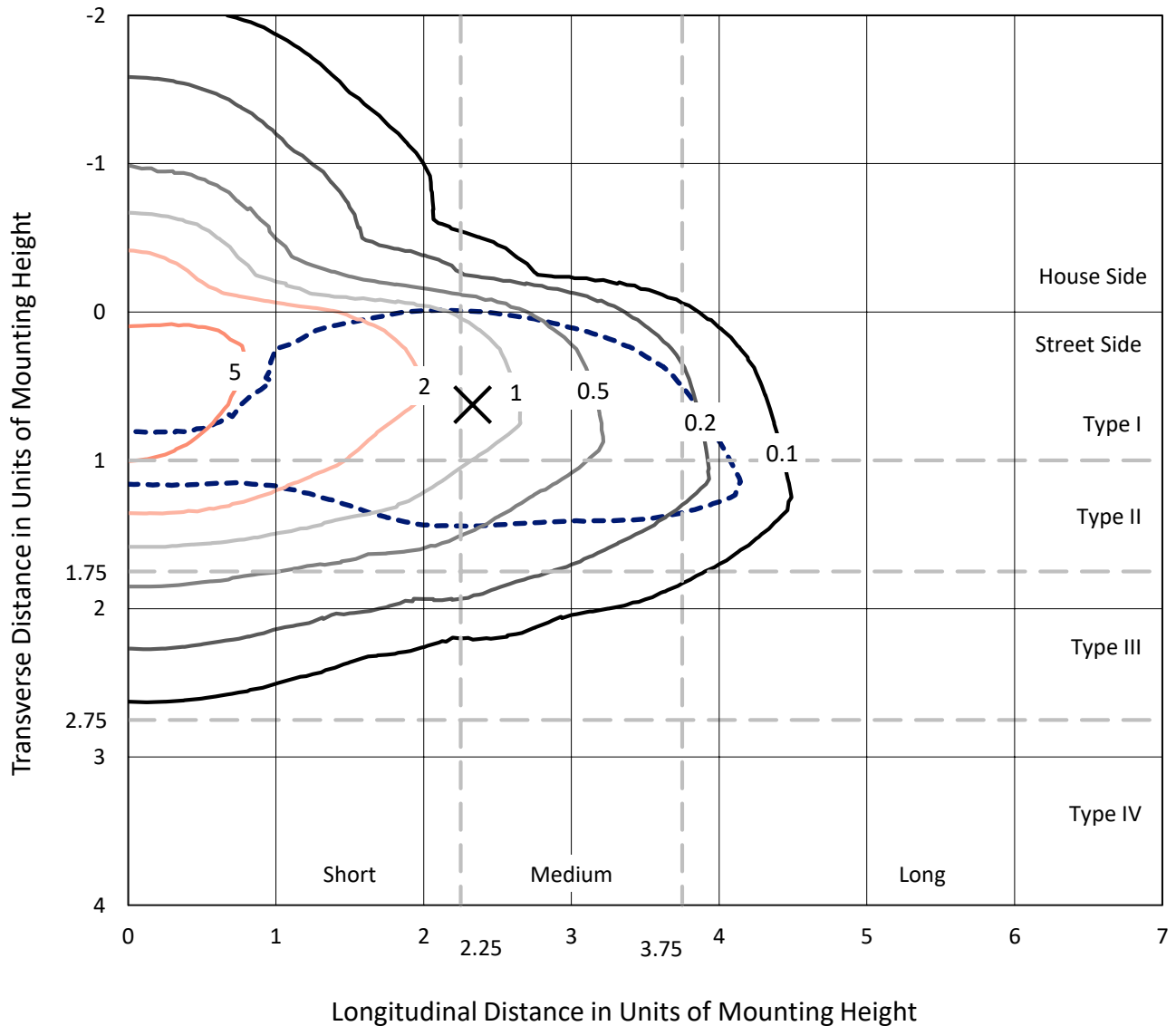


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

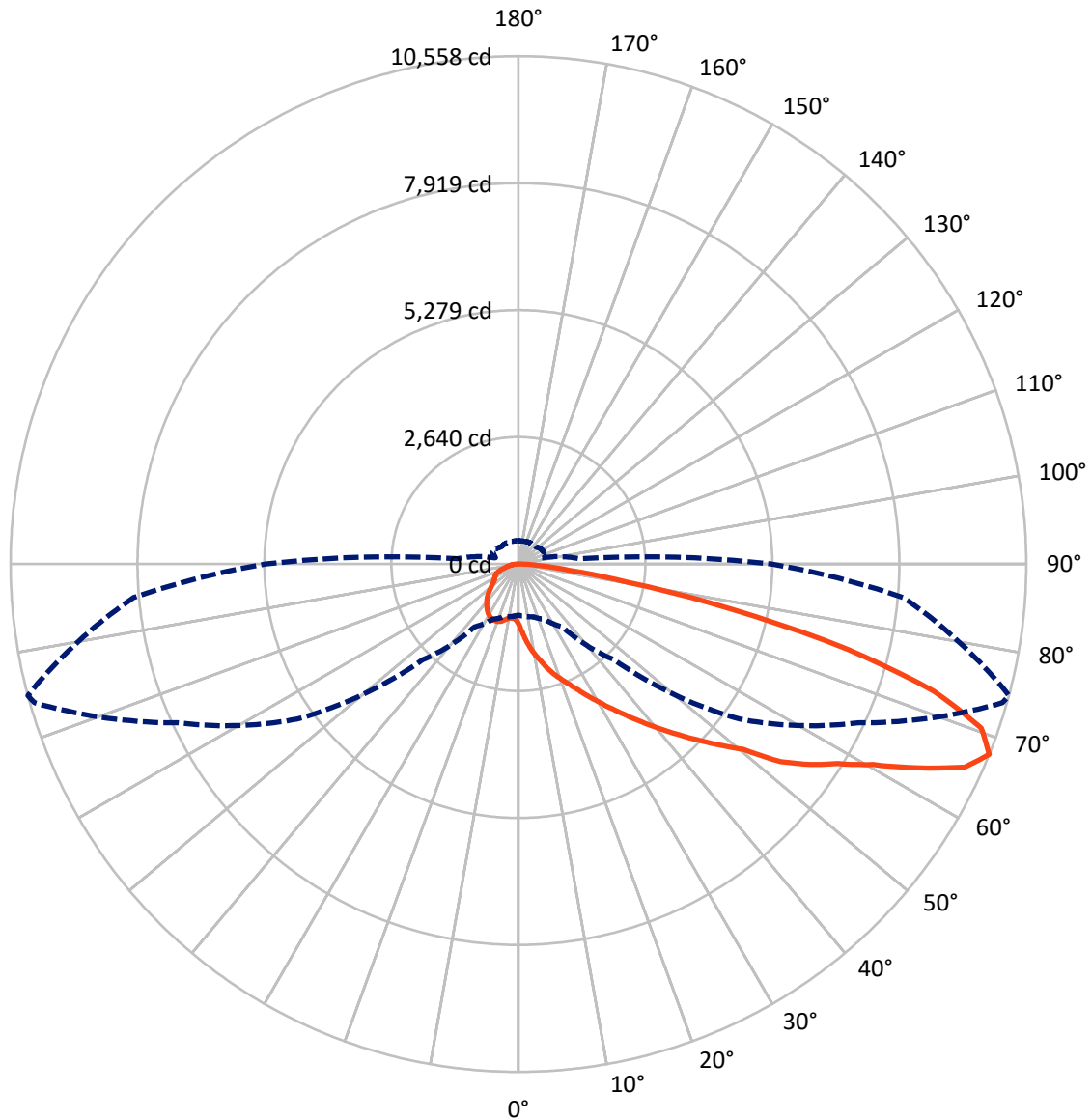


Based on 20 foot mounting height. Maximum calculated value = 6.6 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2163.1	0.0	2163.1
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	10504.1	0.0	10504.1
	% Fixture	82.9	0.0	82.9
Total	Lumens	12667.2	0.0	12667.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.5	1.2
10°-20°	532.9	4.2
20°-30°	972.0	7.7
30°-40°	1595.4	12.6
40°-50°	2307.2	18.2
50°-60°	2719.0	21.5
60°-70°	2642.2	20.9
70°-80°	1468.7	11.6
80°-90°	282.4	2.2
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°	12667.2	100.0
0°-180°	12667.2	100.0



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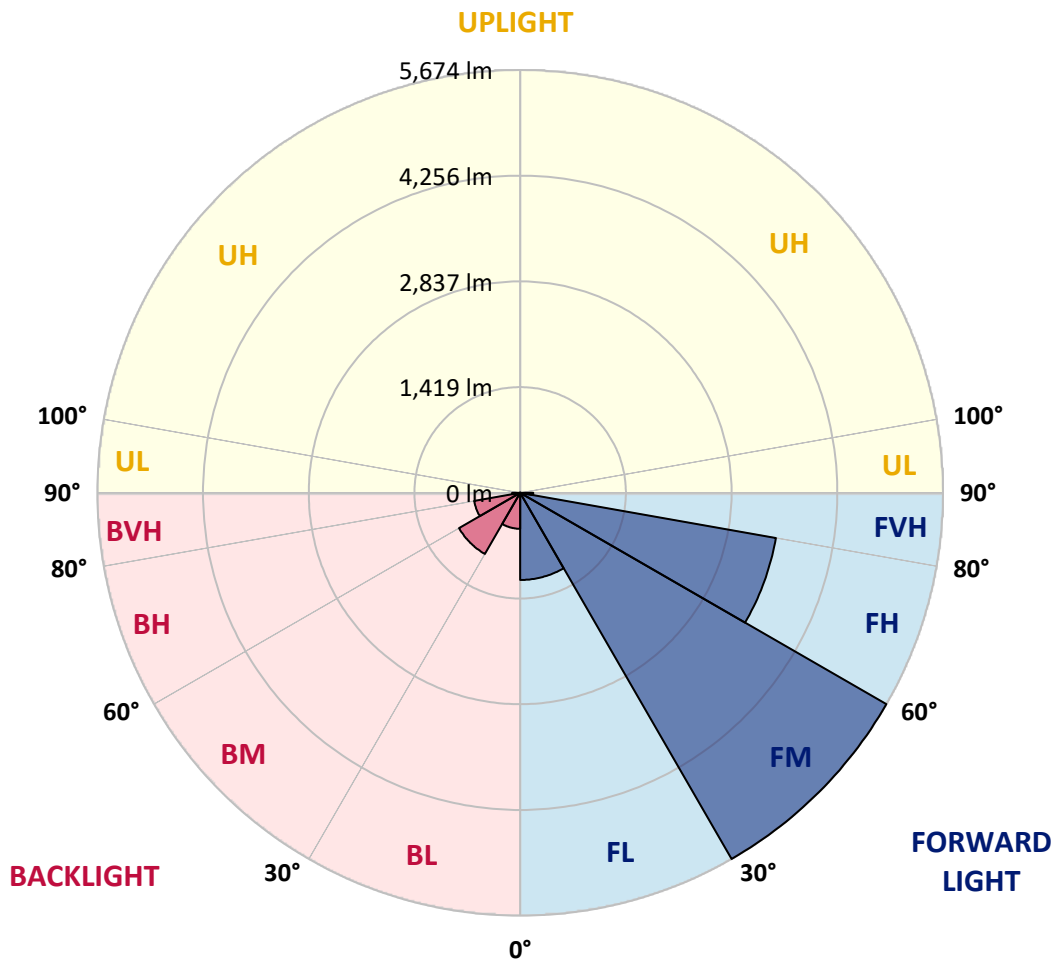
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1169.5	9.2			
FM (30°-60°)	5674.2	44.8			
FH (60°-80°)	3484.6	27.5			G2/5000
FVH (80°-90°)	175.8	1.4			G2/225
BL (0°-30°)	482.8	3.8	B1/500		
BM (30°-60°)	947.3	7.5	B1/1000		
BH (60°-80°)	626.3	4.9	B2/1000		G2/1000
BVH (80°-90°)	106.7	0.8			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	1255.2	1255.2	1255.2	1255.2	1255.2	1255.2	1255.2	1255.2	1255.2	1255.2	1255.2
2.5°	1779.5	1784.8	1774.2	1750.4	1716.0	1652.4	1596.8	1498.8	1411.5	1400.8	1308.1
5°	2092.0	2097.3	2084.1	2054.9	2017.9	1949.0	1872.2	1745.1	1604.7	1578.3	1382.3
7.5°	2306.4	2309.1	2293.3	2264.1	2234.9	2166.1	2089.4	1946.4	1774.2	1753.0	1477.7
10°	2489.2	2494.5	2473.3	2454.8	2423.0	2354.1	2274.7	2123.7	1946.4	1917.2	1575.7
12.5°	2658.6	2664.0	2650.8	2634.8	2624.3	2560.8	2473.3	2293.3	2102.6	2070.8	1692.2
15°	2772.5	2777.8	2780.5	2801.7	2815.0	2769.9	2682.5	2486.6	2272.1	2242.9	1829.9
17.5°	2740.8	2754.0	2793.8	2870.5	2952.6	2955.3	2883.8	2677.3	2438.9	2407.1	1970.2
20°	2648.1	2658.6	2706.3	2822.8	2984.4	3077.0	3071.8	2870.5	2595.1	2560.8	2099.9
22.5°	2724.9	2738.1	2738.1	2809.6	2968.5	3140.7	3209.5	3061.2	2751.3	2719.6	2229.7
25°	3053.2	3061.2	3005.6	2976.5	3034.7	3193.6	3323.4	3267.7	2942.0	2905.0	2370.1
27.5°	3511.4	3498.1	3429.2	3312.7	3249.2	3291.5	3424.0	3463.7	3161.8	3116.8	2515.6
30°	3966.8	3958.9	3879.4	3723.2	3580.2	3490.2	3535.2	3638.4	3400.2	3347.2	2656.0
32.5°	4393.2	4380.0	4292.5	4109.8	3948.3	3781.4	3694.1	3797.4	3654.4	3593.4	2812.3
35°	4785.1	4750.7	4663.3	4472.6	4305.8	4146.9	3932.4	3948.3	3929.8	3866.2	2984.4
37.5°	5102.9	5076.4	4981.1	4803.7	4626.2	4475.3	4250.2	4120.4	4226.3	4165.5	3183.0
40°	5383.6	5354.4	5256.4	5079.1	4914.9	4771.9	4594.5	4329.6	4560.0	4491.2	3405.4
42.5°	5595.4	5574.3	5494.8	5320.1	5161.1	5031.4	4944.0	4594.5	4906.9	4840.7	3649.1
45°	5709.3	5688.1	5645.8	5505.4	5359.8	5259.1	5267.1	4909.6	5269.7	5214.1	3937.7
47.5°	5568.9	5584.8	5621.9	5595.4	5505.4	5457.7	5555.6	5235.3	5674.8	5621.9	4250.2
50°	5192.9	5208.8	5357.1	5539.8	5571.6	5629.8	5815.2	5611.3	6103.8	6061.5	4636.8
52.5°	4268.8	4356.1	4766.5	5203.5	5502.8	5743.7	6103.8	6170.0	6826.8	6826.8	5320.1
55°	3225.4	3302.2	3770.9	4533.5	5235.3	5754.3	6315.7	6548.7	7348.5	7359.0	5677.5
57.5°	2613.6	2661.3	2891.7	3672.9	4673.9	5621.9	6567.2	6874.4	7782.7	7830.4	6138.3
60°	2121.1	2147.6	2298.6	2841.5	3898.0	5264.4	6747.4	7340.5	8402.4	8468.6	6726.1
62.5°	1705.4	1731.9	1832.5	2158.2	3058.5	4594.5	6715.6	7825.1	9228.6	9337.2	7496.8
65°	1361.1	1390.3	1456.5	1657.7	2266.8	3762.9	6389.9	8074.0	10083.9	10189.8	8007.9
67.5°	1061.9	1088.3	1133.4	1265.8	1596.8	2815.0	5619.3	7811.9	10467.9	10558.0	8034.4
70°	802.4	815.6	852.7	937.4	1141.3	1869.5	4398.5	6932.7	10123.6	10205.8	7504.7
72.5°	622.3	619.7	640.9	683.2	797.1	1287.0	2915.5	5637.8	8950.5	9035.3	6403.1
75°	508.4	505.7	519.0	532.2	577.3	863.3	1721.2	4244.9	7224.0	7062.5	4803.7
77.5°	429.0	426.4	439.6	442.2	460.7	595.9	979.8	2793.8	4819.5	4541.5	2706.3
80°	362.7	360.2	376.0	381.4	394.6	436.9	564.1	1512.0	2420.4	2293.3	1292.3
82.5°	272.7	283.4	312.5	325.7	341.6	323.0	349.5	667.3	1122.8	1072.5	561.4
85°	132.4	156.2	235.7	262.2	280.7	203.9	238.3	315.2	505.7	481.9	227.7
87.5°	45.0	39.7	140.3	166.8	182.7	92.7	132.4	174.8	209.2	190.7	71.5
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°	1255.2	1255.2	1255.2	1255.2	1255.2	1255.2	1255.2	1255.2	1255.2	1255.2	1255.2
2.5°	1268.5	1228.7	1170.5	1125.5	1096.3	1072.5	1061.9	1059.3	1053.9	1051.3	1051.3
5°	1295.0	1223.4	1133.4	1085.8	1072.5	1061.9	1067.1	1069.8	1069.8	1069.8	1069.8
7.5°	1334.6	1234.0	1125.5	1093.6	1091.0	1091.0	1106.9	1114.8	1120.1	1120.1	1120.1
10°	1387.6	1252.5	1138.6	1112.2	1120.1	1125.5	1144.0	1154.6	1159.8	1162.5	1165.1
12.5°	1459.1	1292.3	1165.1	1144.0	1154.6	1157.3	1170.5	1175.8	1181.1	1183.7	1183.7
15°	1554.5	1350.5	1207.5	1181.1	1183.7	1181.1	1181.1	1175.8	1173.1	1173.1	1178.4
17.5°	1652.4	1406.1	1244.6	1207.5	1197.0	1175.8	1159.8	1146.6	1138.6	1133.4	1136.0
20°	1750.4	1456.5	1265.8	1212.8	1183.7	1149.3	1120.1	1101.6	1091.0	1080.4	1085.8
22.5°	1848.4	1504.1	1273.8	1197.0	1154.6	1104.3	1072.5	1043.3	1019.5	1003.6	1006.3
25°	1956.9	1557.0	1273.8	1178.4	1114.8	1061.9	1022.1	974.5	940.1	926.8	932.1
27.5°	2065.5	1602.1	1260.5	1144.0	1069.8	1016.9	958.6	903.0	881.8	873.9	876.6
30°	2174.1	1636.5	1231.3	1101.6	1022.1	963.9	887.1	850.1	823.6	802.4	805.1
32.5°	2282.6	1660.4	1191.6	1048.6	971.8	897.7	834.1	791.8	744.1	717.6	720.3
35°	2407.1	1678.9	1144.0	995.6	916.3	839.4	791.8	722.9	672.6	651.4	646.1
37.5°	2536.9	1692.2	1093.6	937.4	860.6	797.1	749.4	664.7	617.0	587.9	585.2
40°	2677.3	1697.4	1032.8	876.6	807.6	770.6	693.8	630.2	548.2	529.6	529.6
42.5°	2844.0	1694.8	971.8	815.6	749.4	709.7	654.1	624.9	553.4	534.9	524.4
45°	3034.7	1694.8	905.6	744.1	691.1	632.9	609.1	590.5	542.9	550.8	556.1
47.5°	3251.9	1689.5	826.2	685.9	643.4	593.2	579.9	540.2	521.7	526.9	532.2
50°	3551.1	1697.4	754.7	638.2	609.1	566.7	550.8	529.6	521.7	524.4	521.7
52.5°	3966.8	1671.0	685.9	609.1	582.6	526.9	526.9	524.4	526.9	524.4	524.4
55°	4194.6	1612.7	635.6	593.2	564.1	508.4	519.0	524.4	529.6	526.9	526.9
57.5°	4517.7	1573.0	595.9	582.6	553.4	503.1	513.7	524.4	526.9	524.4	524.4
60°	4899.0	1546.5	569.4	585.2	545.5	503.1	516.4	524.4	521.7	519.0	519.0
62.5°	5341.2	1535.9	550.8	593.2	537.6	505.7	516.4	524.4	513.7	511.1	511.1
65°	5508.1	1440.5	526.9	598.4	542.9	505.7	513.7	516.4	503.1	500.5	497.9
67.5°	5251.2	1276.3	492.6	587.9	558.7	505.7	505.7	503.1	487.2	484.6	479.4
70°	4676.5	1059.3	439.6	553.4	569.4	508.4	495.2	481.9	466.1	466.1	455.5
72.5°	3829.1	834.1	370.7	492.6	561.4	516.4	474.0	455.5	436.9	436.9	426.4
75°	2759.3	622.3	296.6	410.4	526.9	513.7	447.5	423.7	402.5	399.9	386.6
77.5°	1573.0	436.9	241.0	320.4	468.7	500.5	423.7	386.6	362.7	354.9	346.9
80°	807.6	293.9	196.0	251.5	389.2	463.4	405.2	344.2	317.7	304.5	291.3
82.5°	384.0	196.0	151.0	185.4	293.9	405.2	381.4	296.6	267.5	251.5	235.7
85°	172.2	116.5	100.7	119.2	209.2	315.2	336.3	243.7	209.2	262.2	193.3
87.5°	55.6	53.0	53.0	55.6	100.7	137.7	246.2	180.0	166.8	137.7	116.5
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)