

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: P265851

Luminaire Tested: **ARCH-M-AF48-150-D-U-T2R-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265851
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-AF48-150-D-U-T2R-7027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 970mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15589.8 lumens
Efficiency: N/A
Efficacy: 103.2 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): 151
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

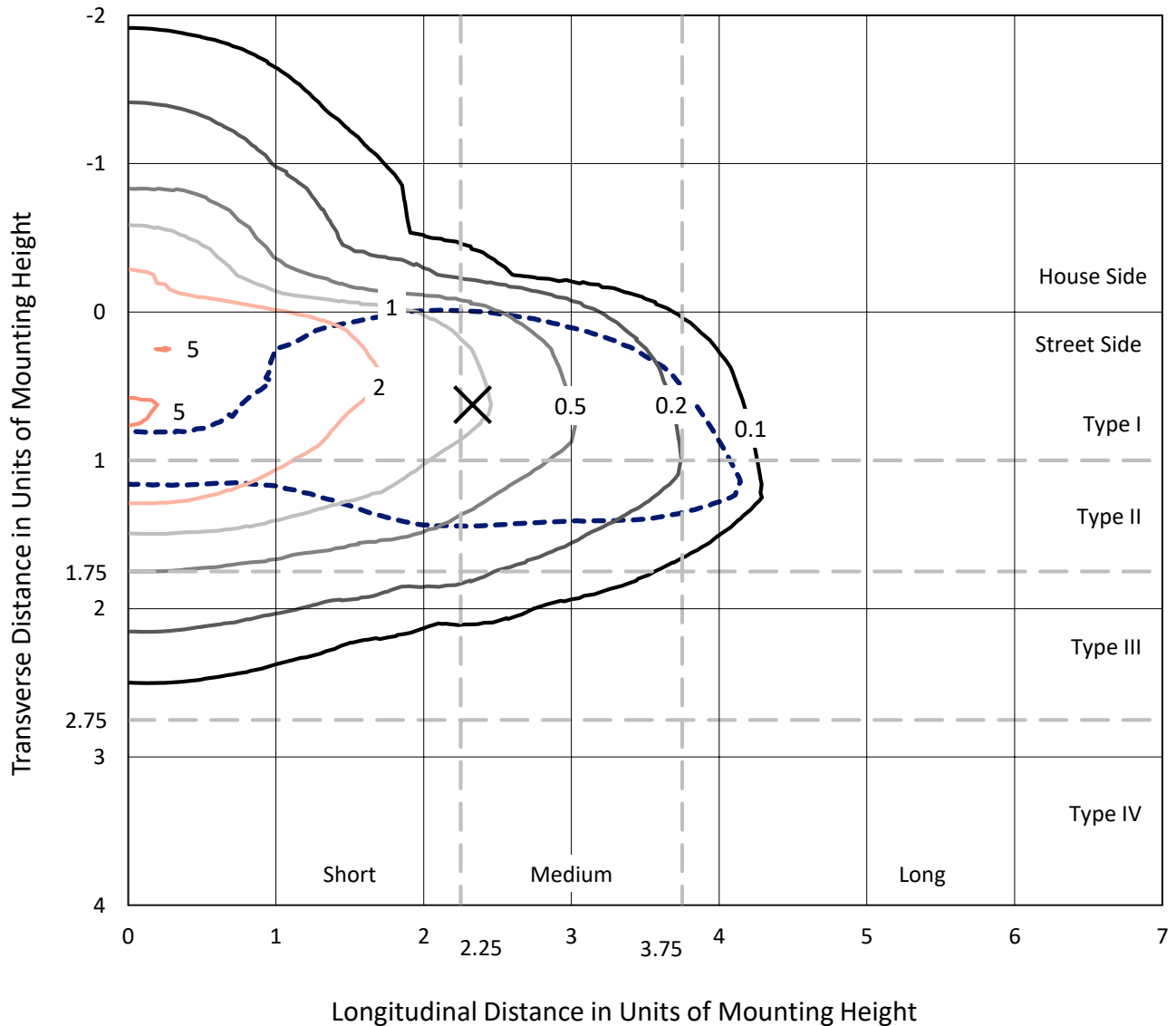


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

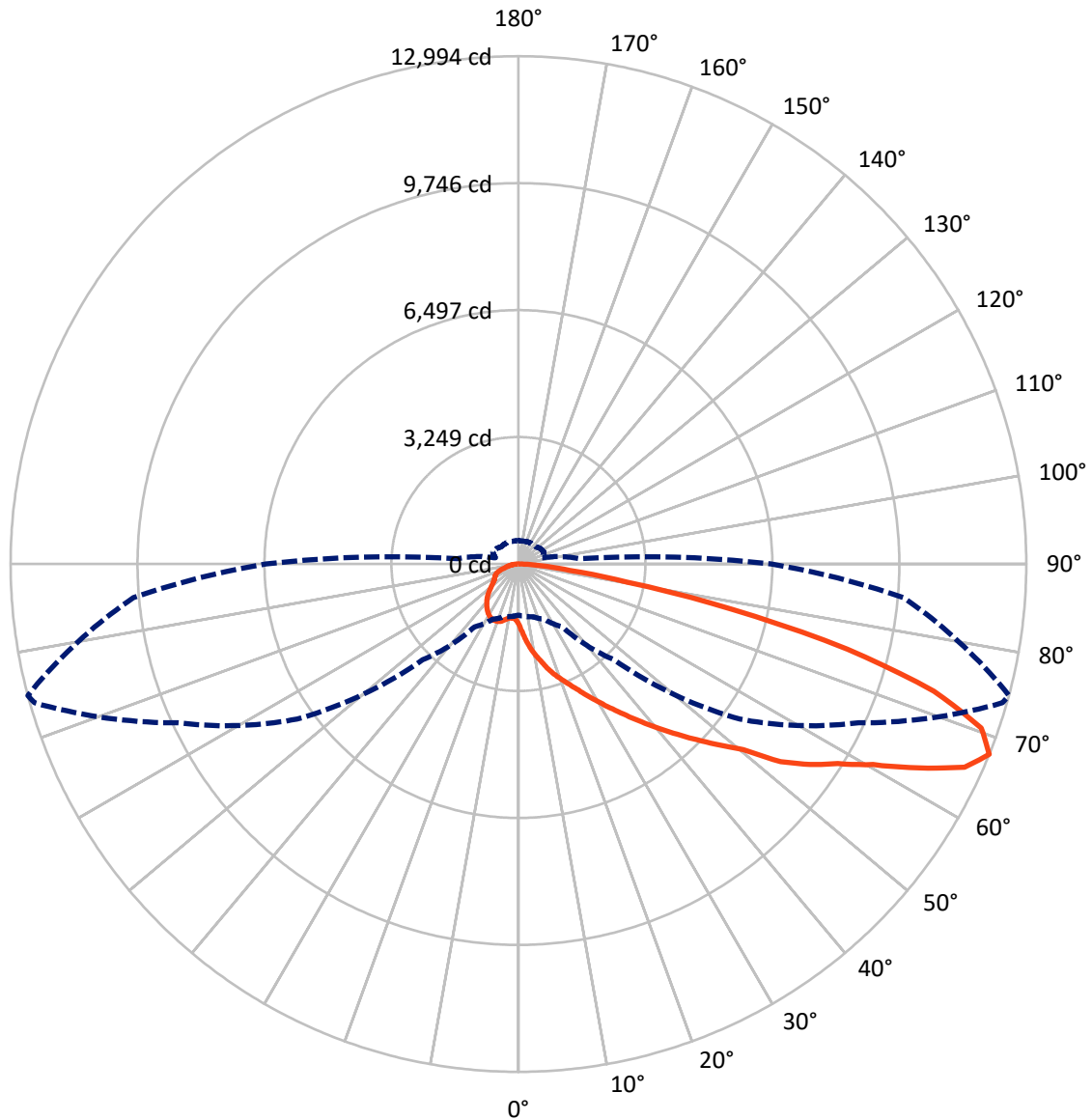


Based on 25 foot mounting height. Maximum calculated value = 5.2 fc
 Type II - Medium - Semi-Cutoff

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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	2662.2	0.0	2662.2
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	12927.7	0.0	12927.7
	% Fixture	82.9	0.0	82.9
Total	Lumens	15589.8	0.0	15589.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.5	1.2
10°-20°	655.9	4.2
20°-30°	1196.2	7.7
30°-40°	1963.5	12.6
40°-50°	2839.5	18.2
50°-60°	3346.3	21.5
60°-70°	3251.8	20.9
70°-80°	1807.6	11.6
80°-90°	347.6	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°	15589.8	100.0
0°-180°	15589.8	100.0

Coefficient of Utilization



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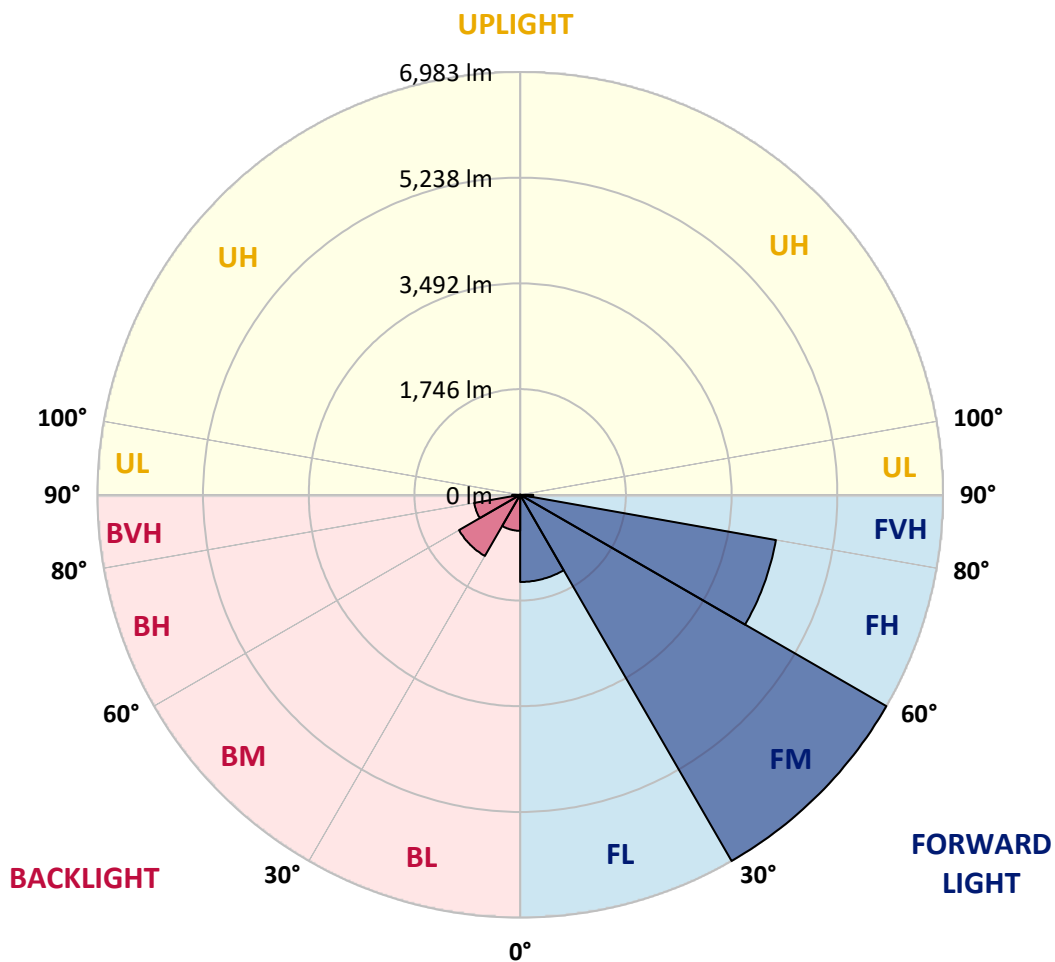
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1439.4	9.2			
FM (30°-60°)	6983.4	44.8			
FH (60°-80°)	4288.6	27.5			G2/5000
FVH (80°-90°)	216.3	1.4			G2/225
BL (0°-30°)	594.2	3.8	B2/1000		
BM (30°-60°)	1165.9	7.5	B2/2500		
BH (60°-80°)	770.8	4.9	B2/1000		G2/1000
BVH (80°-90°)	131.3	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°	1544.7	1544.7	1544.7	1544.7	1544.7	1544.7	1544.7	1544.7	1544.7	1544.7	1544.7
2.5°	2190.1	2196.6	2183.6	2154.2	2111.8	2033.7	1965.2	1844.6	1737.1	1724.0	1610.0
5°	2574.6	2581.2	2564.9	2529.1	2483.5	2398.7	2304.2	2147.8	1975.1	1942.4	1701.2
7.5°	2838.6	2841.9	2822.4	2786.5	2750.7	2665.9	2571.4	2395.4	2183.6	2157.5	1818.6
10°	3063.5	3070.0	3043.9	3021.2	2982.1	2897.4	2799.6	2613.8	2395.4	2359.6	1939.1
12.5°	3272.0	3278.6	3262.4	3242.8	3229.8	3151.6	3043.9	2822.4	2587.7	2548.6	2082.5
15°	3412.2	3418.8	3422.1	3448.1	3464.5	3409.0	3301.5	3060.3	2796.2	2760.4	2252.1
17.5°	3373.1	3389.5	3438.4	3532.9	3633.9	3637.1	3549.2	3295.0	3001.5	2962.5	2424.7
20°	3259.1	3272.0	3330.7	3474.1	3673.0	3787.1	3780.5	3532.9	3194.0	3151.6	2584.5
22.5°	3353.6	3369.9	3369.9	3457.8	3653.4	3865.2	3949.9	3767.5	3386.3	3347.1	2744.1
25°	3757.7	3767.5	3699.0	3663.2	3735.0	3930.4	4090.2	4021.7	3620.8	3575.3	2916.8
27.5°	4321.6	4305.2	4220.4	4077.0	3998.9	4051.0	4213.9	4262.8	3891.4	3835.9	3096.1
30°	4882.1	4872.2	4774.5	4582.3	4406.2	4295.4	4350.9	4478.1	4184.7	4119.4	3268.8
32.5°	5406.8	5390.5	5282.9	5058.0	4859.3	4653.9	4546.4	4673.5	4497.5	4422.5	3461.1
35°	5889.2	5846.8	5739.2	5504.5	5299.2	5103.7	4839.7	4859.3	4836.5	4758.2	3673.0
37.5°	6280.2	6247.6	6130.4	5911.9	5693.5	5507.9	5230.8	5071.1	5201.5	5126.5	3917.4
40°	6625.7	6589.8	6469.2	6250.9	6048.8	5872.8	5654.6	5328.6	5612.2	5527.5	4191.1
42.5°	6886.4	6860.4	6762.6	6547.4	6351.9	6192.2	6084.7	5654.6	6039.0	5957.6	4490.9
45°	7026.5	7000.5	6948.3	6775.6	6596.3	6472.5	6482.3	6042.3	6485.6	6417.1	4846.3
47.5°	6853.9	6873.4	6919.0	6886.4	6775.6	6716.9	6837.4	6443.3	6984.2	6919.0	5230.8
50°	6391.0	6410.7	6593.1	6818.0	6857.1	6928.7	7156.9	6906.0	7512.2	7460.1	5706.7
52.5°	5253.6	5361.2	5866.3	6404.0	6772.3	7068.9	7512.2	7593.6	8401.8	8401.8	6547.4
55°	3969.6	4064.0	4641.0	5579.6	6443.3	7082.0	7772.9	8059.8	9044.0	9057.0	6987.5
57.5°	3216.7	3275.4	3558.9	4520.4	5752.2	6919.0	8082.5	8460.5	9578.4	9637.0	7554.6
60°	2610.6	2643.2	2828.9	3497.0	4797.4	6479.0	8304.1	9034.2	10341.1	10422.6	8278.1
62.5°	2098.8	2131.5	2255.3	2656.2	3764.3	5654.6	8265.0	9630.5	11357.9	11491.5	9226.4
65°	1675.2	1711.0	1792.5	2040.2	2789.7	4631.1	7864.1	9937.0	12410.5	12540.9	9855.5
67.5°	1306.9	1339.6	1394.9	1557.8	1965.2	3464.5	6915.7	9614.3	12883.1	12994.0	9888.1
70°	987.4	1003.8	1049.4	1153.8	1404.7	2300.9	5413.4	8532.2	12459.4	12560.6	9236.3
72.5°	765.9	762.7	788.7	840.9	980.9	1583.9	3588.2	6938.6	11015.6	11119.9	7880.4
75°	625.7	622.4	638.8	655.0	710.5	1062.4	2118.5	5224.4	8890.7	8692.0	5911.9
77.5°	527.9	524.7	541.0	544.3	567.1	733.2	1205.9	3438.4	5931.5	5589.3	3330.7
80°	446.5	443.3	462.7	469.4	485.7	537.7	694.2	1860.8	2978.8	2822.4	1590.4
82.5°	335.6	348.7	384.6	400.9	420.4	397.6	430.2	821.3	1381.9	1319.9	690.9
85°	163.0	192.2	290.1	322.6	345.5	250.9	293.3	387.8	622.4	593.2	280.4
87.5°	55.3	48.9	172.7	205.4	224.8	114.1	163.0	215.1	257.5	234.6	88.0
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°	1544.7	1544.7	1544.7	1544.7	1544.7	1544.7	1544.7	1544.7	1544.7	1544.7	1544.7
2.5°	1561.2	1512.1	1440.5	1385.0	1349.3	1319.9	1306.9	1303.6	1297.2	1293.9	1293.9
5°	1593.8	1505.6	1394.9	1336.1	1319.9	1306.9	1313.4	1316.6	1316.6	1316.6	1316.6
7.5°	1642.6	1518.8	1385.0	1346.0	1342.7	1342.7	1362.3	1372.2	1378.5	1378.5	1378.5
10°	1707.8	1541.5	1401.4	1368.7	1378.5	1385.0	1408.0	1420.9	1427.4	1430.7	1434.0
12.5°	1795.7	1590.4	1434.0	1408.0	1420.9	1424.3	1440.5	1447.0	1453.5	1456.8	1456.8
15°	1913.1	1662.1	1486.2	1453.5	1456.8	1453.5	1453.5	1447.0	1443.8	1443.8	1450.4
17.5°	2033.7	1730.6	1531.8	1486.2	1473.1	1447.0	1427.4	1411.1	1401.4	1394.9	1398.1
20°	2154.2	1792.5	1557.8	1492.7	1456.8	1414.4	1378.5	1355.8	1342.7	1329.8	1336.1
22.5°	2274.9	1851.1	1567.6	1473.1	1420.9	1359.0	1319.9	1284.0	1254.8	1235.2	1238.5
25°	2408.4	1916.4	1567.6	1450.4	1372.2	1306.9	1257.9	1199.3	1156.9	1140.7	1147.1
27.5°	2542.1	1971.7	1551.4	1408.0	1316.6	1251.5	1179.7	1111.4	1085.2	1075.5	1078.8
30°	2675.7	2014.1	1515.5	1355.8	1257.9	1186.3	1091.8	1046.2	1013.6	987.4	990.8
32.5°	2809.3	2043.5	1466.7	1290.5	1196.1	1104.8	1026.7	974.4	915.8	883.3	886.4
35°	2962.5	2066.2	1408.0	1225.4	1127.6	1033.1	974.4	889.7	827.8	801.7	795.2
37.5°	3122.1	2082.5	1346.0	1153.8	1059.2	980.9	922.3	818.0	759.3	723.6	720.3
40°	3295.0	2089.1	1271.0	1078.8	994.1	948.4	853.8	775.6	674.6	651.8	651.8
42.5°	3500.2	2085.9	1196.1	1003.8	922.3	873.4	805.1	769.2	681.2	658.4	645.3
45°	3735.0	2085.9	1114.5	915.8	850.7	778.9	749.5	726.8	668.1	678.0	684.4
47.5°	4002.2	2079.2	1016.8	844.0	791.9	730.1	713.8	664.8	642.1	648.5	655.0
50°	4370.4	2089.1	928.8	785.5	749.5	697.4	678.0	651.8	642.1	645.3	642.1
52.5°	4882.1	2056.5	844.0	749.5	716.9	648.5	648.5	645.3	648.5	645.3	645.3
55°	5162.4	1984.7	782.2	730.1	694.2	625.7	638.8	645.3	651.8	648.5	648.5
57.5°	5560.0	1935.8	733.2	716.9	681.2	619.2	632.2	645.3	648.5	645.3	645.3
60°	6029.2	1903.2	700.7	720.3	671.4	619.2	635.6	645.3	642.1	638.8	638.8
62.5°	6573.5	1890.3	678.0	730.1	661.6	622.4	635.6	645.3	632.2	629.1	629.1
65°	6778.9	1773.0	648.5	736.5	668.1	622.4	632.2	635.6	619.2	616.0	612.7
67.5°	6462.8	1570.9	606.1	723.6	687.7	622.4	622.4	619.2	599.7	596.5	589.8
70°	5755.5	1303.6	541.0	681.2	700.7	625.7	609.4	593.2	573.6	573.6	560.5
72.5°	4712.6	1026.7	456.2	606.1	690.9	635.6	583.4	560.5	537.7	537.7	524.7
75°	3396.0	765.9	365.0	505.1	648.5	632.2	550.8	521.5	495.3	492.1	475.8
77.5°	1935.8	537.7	296.6	394.4	576.8	616.0	521.5	475.8	446.5	436.8	427.0
80°	994.1	361.7	241.1	309.6	479.1	570.3	498.6	423.7	391.1	374.9	358.6
82.5°	472.6	241.1	185.8	228.1	361.7	498.6	469.4	365.0	329.1	309.6	290.1
85°	211.8	143.4	123.8	146.7	257.5	387.8	413.8	299.9	257.5	322.6	238.0
87.5°	68.5	65.1	65.1	68.5	123.8	169.5	303.1	221.6	205.4	169.5	143.4
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)