

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: P234695

Luminaire Tested: **ARCH-AF24-100-D-U-T2R-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234695
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-AF24-100-D-U-T2R-8027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 1200mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7748 lumens
Efficiency: N/A
Efficacy: 80.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 96
Input Voltage (V): NR
Input Current (A_{in}): 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

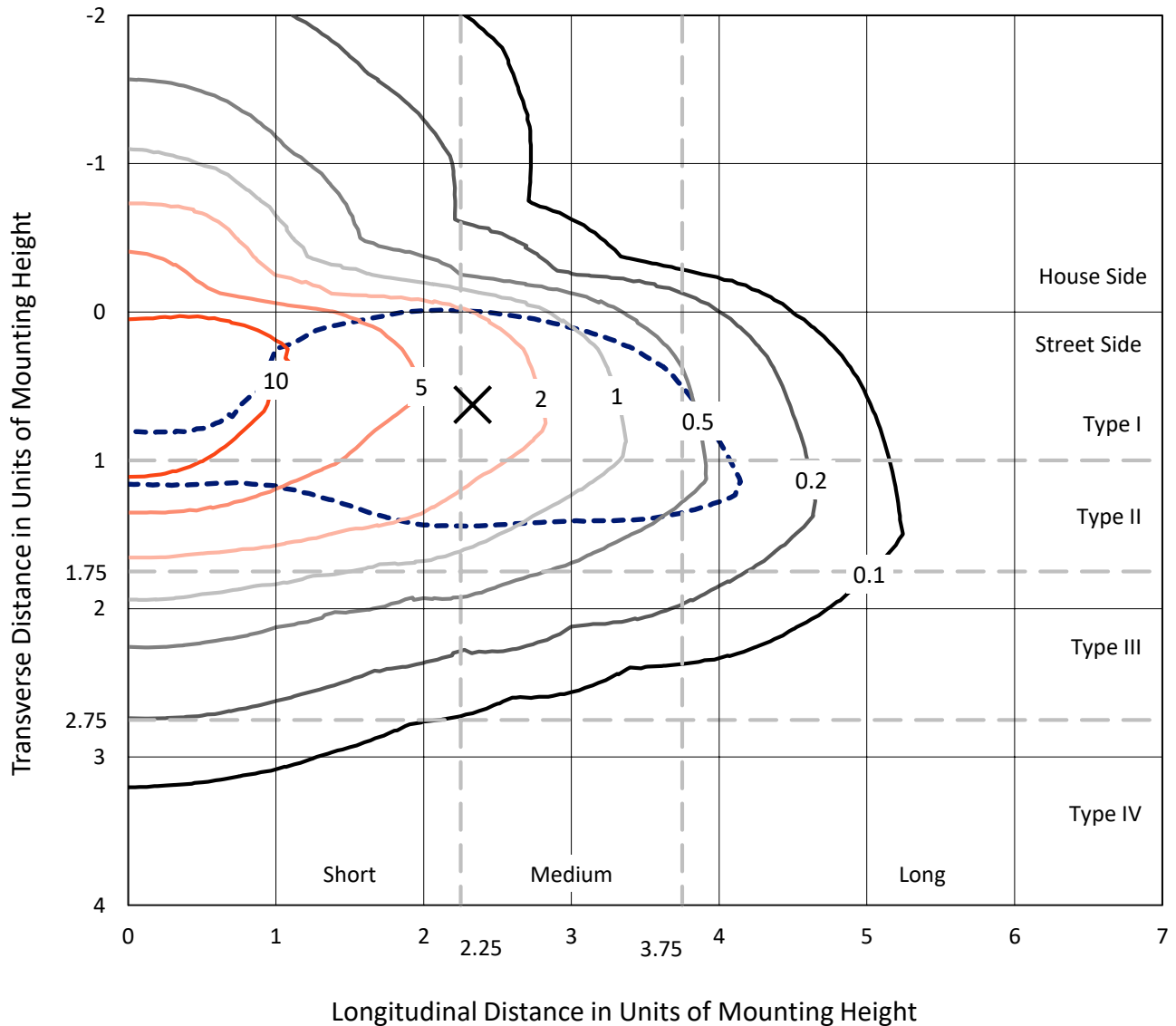


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

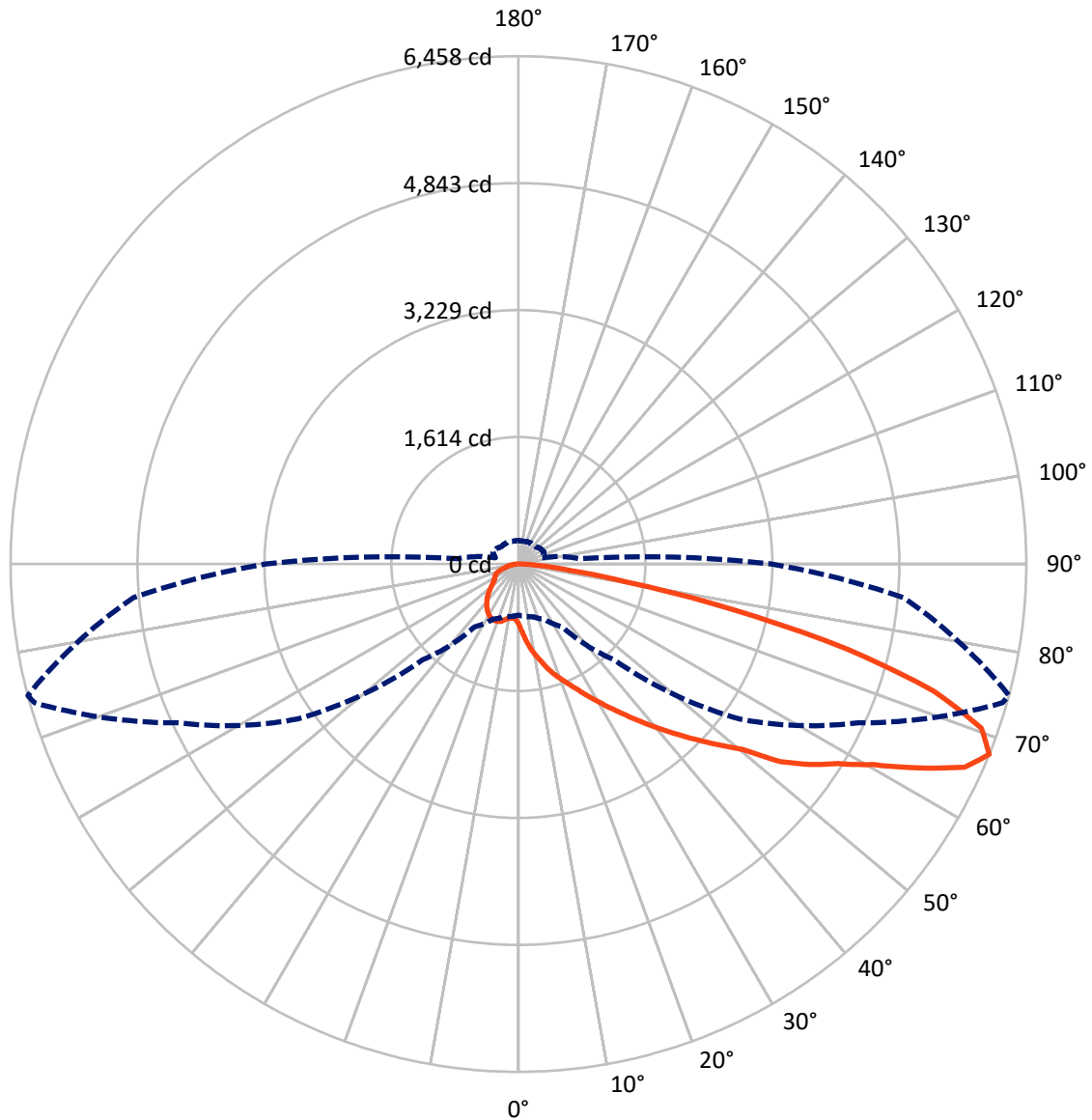


Based on 10 foot mounting height. Maximum calculated value = 16.1 fc
 Type II - Medium - Semi-Cutoff

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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	1323.1	0.0	1323.1
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	6424.9	0.0	6424.9
	% Fixture	82.9	0.0	82.9
Total	Lumens	7748.0	0.0	7748.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.2	1.2
10°-20°	326.0	4.2
20°-30°	594.5	7.7
30°-40°	975.8	12.6
40°-50°	1411.2	18.2
50°-60°	1663.1	21.5
60°-70°	1616.1	20.9
70°-80°	898.3	11.6
80°-90°	172.7	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°	7748.0	100.0
0°-180°	7748.0	100.0

Coefficient of Utilization



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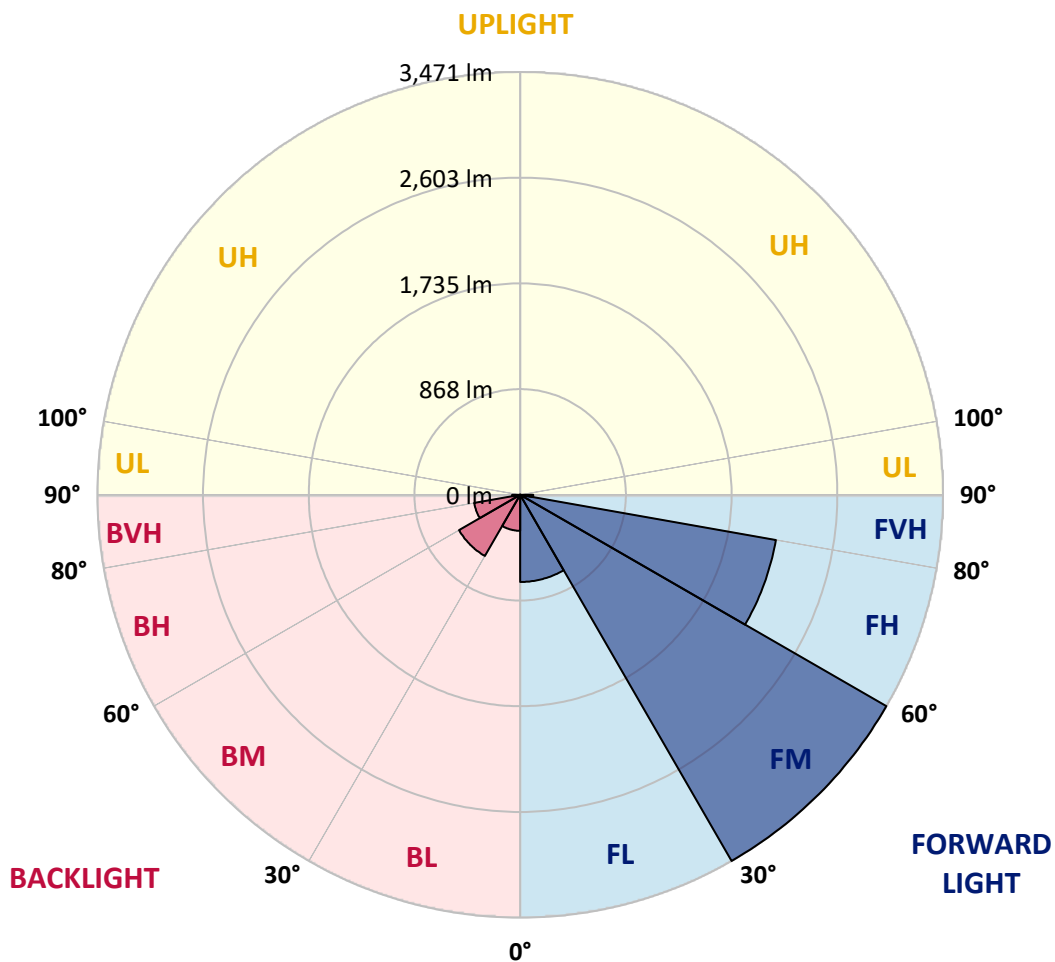
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	715.3	9.2			
FM	(30°-60°)	3470.7	44.8			
FH	(60°-80°)	2131.4	27.5			G2/5000
FVH	(80°-90°)	107.5	1.4			G2/225
BL	(0°-30°)	295.3	3.8	B1/500		
BM	(30°-60°)	579.4	7.5	B1/1000		
BH	(60°-80°)	383.1	4.9	B1/500		G1/500
BVH	(80°-90°)	65.2	0.8			G1/100
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 Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	767.8	767.8	767.8	767.8	767.8	767.8	767.8	767.8	767.8	767.8	767.8
2.5°	1088.5	1091.7	1085.2	1070.6	1049.6	1010.7	976.7	916.8	863.3	856.8	800.1
5°	1279.6	1282.8	1274.7	1256.9	1234.2	1192.1	1145.1	1067.4	981.6	965.4	845.5
7.5°	1410.8	1412.4	1402.7	1384.9	1367.1	1324.9	1278.0	1190.5	1085.2	1072.3	903.8
10°	1522.5	1525.8	1512.8	1501.5	1482.1	1439.9	1391.3	1299.0	1190.5	1172.7	963.7
12.5°	1626.2	1629.4	1621.3	1611.6	1605.1	1566.3	1512.8	1402.7	1286.1	1266.6	1035.0
15°	1695.9	1699.1	1700.7	1713.7	1721.8	1694.2	1640.8	1520.9	1389.7	1371.9	1119.2
17.5°	1676.4	1684.5	1708.8	1755.8	1806.0	1807.6	1763.9	1637.5	1491.8	1472.3	1205.1
20°	1619.7	1626.2	1655.4	1726.6	1825.4	1882.1	1878.9	1755.8	1587.3	1566.3	1284.4
22.5°	1666.7	1674.8	1674.8	1718.5	1815.7	1921.0	1963.1	1872.4	1682.9	1663.5	1363.8
25°	1867.5	1872.4	1838.4	1820.6	1856.2	1953.4	2032.8	1998.7	1799.5	1776.8	1449.7
27.5°	2147.8	2139.7	2097.5	2026.3	1987.4	2013.3	2094.3	2118.6	1934.0	1906.4	1538.7
30°	2426.4	2421.5	2372.9	2277.3	2189.9	2134.8	2162.3	2225.5	2079.7	2047.3	1624.6
32.5°	2687.1	2679.0	2625.6	2513.8	2415.0	2313.0	2259.5	2322.7	2235.2	2198.0	1720.2
35°	2926.8	2905.8	2852.3	2735.7	2633.7	2536.5	2405.3	2415.0	2403.7	2364.8	1825.4
37.5°	3121.2	3105.0	3046.7	2938.2	2829.7	2737.3	2599.7	2520.3	2585.1	2547.8	1946.9
40°	3292.9	3275.1	3215.2	3106.6	3006.2	2918.7	2810.2	2648.3	2789.2	2747.1	2083.0
42.5°	3422.5	3409.5	3360.9	3254.0	3156.8	3077.5	3024.0	2810.2	3001.4	2960.9	2232.0
45°	3492.1	3479.2	3453.3	3367.4	3278.3	3216.8	3221.6	3003.0	3223.3	3189.2	2408.5
47.5°	3406.3	3416.0	3438.7	3422.5	3367.4	3338.3	3398.2	3202.2	3471.1	3438.7	2599.7
50°	3176.3	3186.0	3276.7	3388.5	3407.9	3443.5	3556.9	3432.2	3733.5	3707.6	2836.1
52.5°	2611.0	2664.5	2915.5	3182.8	3365.8	3513.2	3733.5	3774.0	4175.7	4175.7	3254.0
55°	1972.8	2019.8	2306.5	2773.0	3202.2	3519.7	3863.1	4005.6	4494.7	4501.2	3472.7
57.5°	1598.7	1627.8	1768.7	2246.6	2858.8	3438.7	4016.9	4204.8	4760.4	4789.5	3754.5
60°	1297.4	1313.6	1405.9	1738.0	2384.2	3220.0	4127.1	4489.9	5139.4	5179.9	4114.1
62.5°	1043.1	1059.3	1120.9	1320.1	1870.8	2810.2	4107.6	4786.3	5644.8	5711.2	4585.4
65°	832.5	850.4	890.9	1013.9	1386.5	2301.6	3908.4	4938.5	6167.9	6232.7	4898.1
67.5°	649.5	665.7	693.2	774.2	976.7	1721.8	3437.1	4778.2	6402.8	6457.9	4914.3
70°	490.8	498.9	521.6	573.4	698.1	1143.5	2690.4	4240.4	6192.2	6242.4	4590.3
72.5°	380.6	379.0	392.0	417.9	487.5	787.2	1783.3	3448.4	5474.7	5526.5	3916.5
75°	311.0	309.4	317.5	325.6	353.1	528.0	1052.8	2596.4	4418.6	4319.8	2938.2
77.5°	262.4	260.8	268.9	270.5	281.8	364.4	599.3	1708.8	2947.9	2777.8	1655.4
80°	221.9	220.3	230.0	233.2	241.3	267.3	345.0	924.9	1480.4	1402.7	790.4
82.5°	166.8	173.3	191.1	199.2	208.9	197.6	213.8	408.2	686.8	656.0	343.4
85°	81.0	95.6	144.2	160.4	171.7	124.7	145.8	192.7	309.4	294.8	139.3
87.5°	27.5	24.3	85.8	102.0	111.8	56.7	81.0	106.9	128.0	116.6	43.7
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°	767.8	767.8	767.8	767.8	767.8	767.8	767.8	767.8	767.8	767.8	767.8
2.5°	775.8	751.6	715.9	688.4	670.6	656.0	649.5	647.9	644.7	643.0	643.0
5°	792.0	748.3	693.2	664.1	656.0	649.5	652.8	654.4	654.4	654.4	654.4
7.5°	816.3	754.8	688.4	668.9	667.3	667.3	677.0	681.9	685.1	685.1	685.1
10°	848.7	766.1	696.5	680.3	685.1	688.4	699.7	706.2	709.4	711.1	712.7
12.5°	892.5	790.4	712.7	699.7	706.2	707.8	715.9	719.2	722.4	724.0	724.0
15°	950.8	826.1	738.6	722.4	724.0	722.4	722.4	719.2	717.5	717.5	720.8
17.5°	1010.7	860.1	761.3	738.6	732.1	719.2	709.4	701.3	696.5	693.2	694.9
20°	1070.6	890.9	774.2	741.8	724.0	703.0	685.1	673.8	667.3	660.8	664.1
22.5°	1130.6	920.0	779.1	732.1	706.2	675.4	656.0	638.2	623.6	613.9	615.5
25°	1197.0	952.4	779.1	720.8	681.9	649.5	625.2	596.1	575.0	566.9	570.1
27.5°	1263.4	979.9	771.0	699.7	654.4	622.0	586.3	552.3	539.4	534.5	536.1
30°	1329.8	1001.0	753.2	673.8	625.2	589.6	542.6	519.9	503.7	490.8	492.4
32.5°	1396.2	1015.6	728.9	641.4	594.4	549.1	510.2	484.3	455.1	438.9	440.6
35°	1472.3	1026.9	699.7	609.0	560.4	513.5	484.3	442.2	411.4	398.5	395.2
37.5°	1551.7	1035.0	668.9	573.4	526.4	487.5	458.4	406.6	377.4	359.6	358.0
40°	1637.5	1038.2	631.7	536.1	494.0	471.3	424.4	385.5	335.3	323.9	323.9
42.5°	1739.6	1036.6	594.4	498.9	458.4	434.1	400.1	382.3	338.5	327.2	320.7
45°	1856.2	1036.6	553.9	455.1	422.7	387.1	372.5	361.2	332.0	336.9	340.1
47.5°	1989.0	1033.4	505.4	419.5	393.6	362.8	354.7	330.4	319.1	322.3	325.6
50°	2172.1	1038.2	461.6	390.4	372.5	346.6	336.9	323.9	319.1	320.7	319.1
52.5°	2426.4	1022.0	419.5	372.5	356.3	322.3	322.3	320.7	322.3	320.7	320.7
55°	2565.6	986.4	388.7	362.8	345.0	311.0	317.5	320.7	323.9	322.3	322.3
57.5°	2763.3	962.1	364.4	356.3	338.5	307.7	314.2	320.7	322.3	320.7	320.7
60°	2996.5	945.9	348.2	358.0	333.7	307.7	315.8	320.7	319.1	317.5	317.5
62.5°	3267.0	939.4	336.9	362.8	328.8	309.4	315.8	320.7	314.2	312.6	312.6
65°	3369.0	881.1	322.3	366.1	332.0	309.4	314.2	315.8	307.7	306.1	304.5
67.5°	3211.9	780.7	301.3	359.6	341.8	309.4	309.4	307.7	298.0	296.4	293.2
70°	2860.4	647.9	268.9	338.5	348.2	311.0	302.9	294.8	285.1	285.1	278.6
72.5°	2342.1	510.2	226.8	301.3	343.4	315.8	289.9	278.6	267.3	267.3	260.8
75°	1687.8	380.6	181.4	251.1	322.3	314.2	273.7	259.2	246.2	244.6	236.5
77.5°	962.1	267.3	147.4	196.0	286.7	306.1	259.2	236.5	221.9	217.0	212.2
80°	494.0	179.8	119.9	153.9	238.1	283.5	247.8	210.6	194.4	186.3	178.2
82.5°	234.9	119.9	92.3	113.4	179.8	247.8	233.2	181.4	163.6	153.9	144.2
85°	105.3	71.3	61.5	72.9	128.0	192.7	205.7	149.0	128.0	160.4	118.2
87.5°	34.0	32.4	32.4	34.0	61.5	84.2	150.6	110.1	102.0	84.2	71.3
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)