

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: P214606

Luminaire Tested: **ARCH-AF24-70-D-U-T2R-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214606
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-AF24-70-D-U-T2R-7050
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 930mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8522 lumens
Efficiency: N/A
Efficacy: 115.2 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

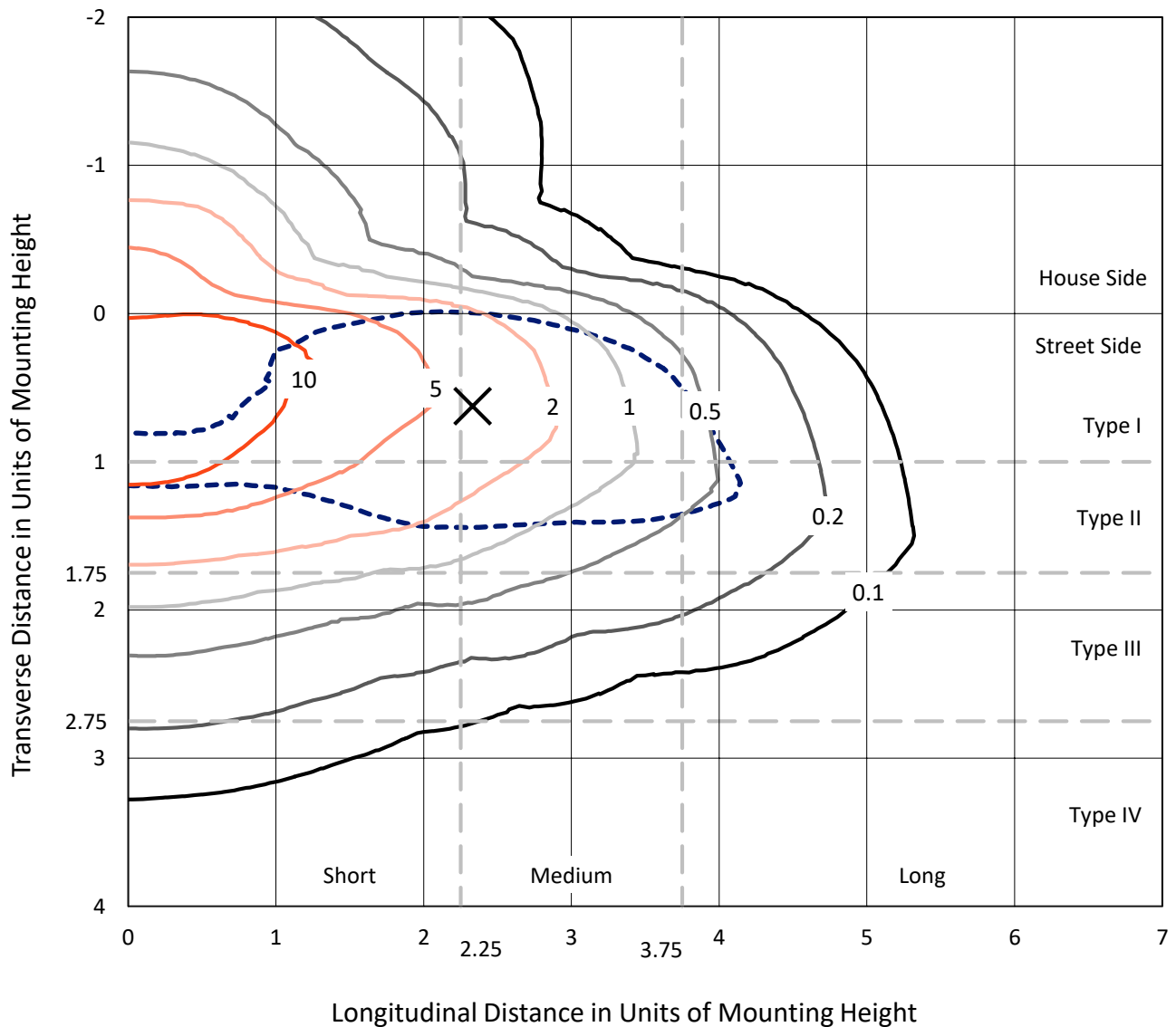
Input Watts (W): 74
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

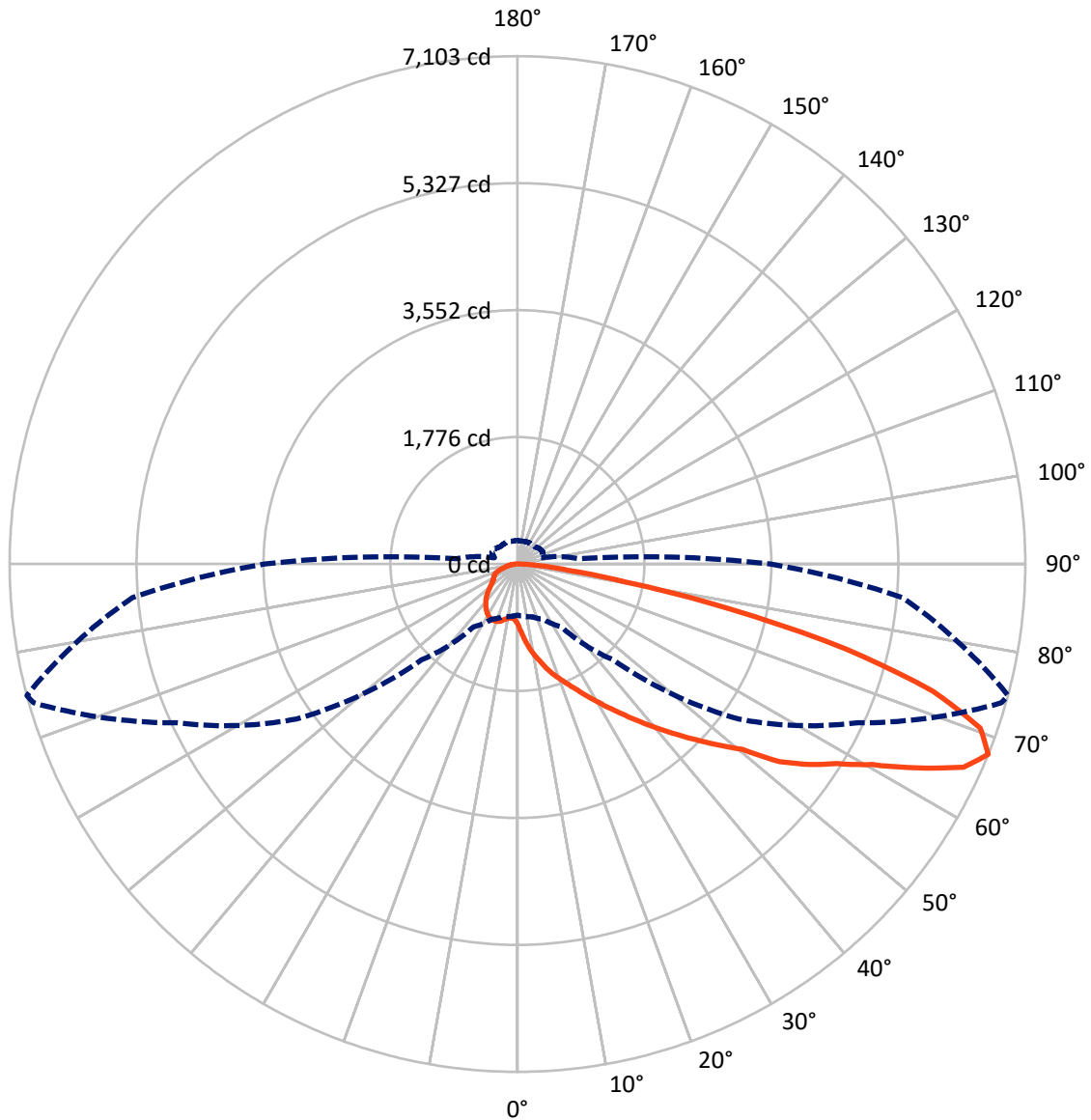
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 17.7 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	1455.2	0.0	1455.2
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	7066.8	0.0	7066.8
	% Fixture	82.9	0.0	82.9
Total	Lumens	8522.0	0.0	8522.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.2	1.2
10°-20°	358.5	4.2
20°-30°	653.9	7.7
30°-40°	1073.3	12.6
40°-50°	1552.2	18.2
50°-60°	1829.2	21.5
60°-70°	1777.6	20.9
70°-80°	988.1	11.6
80°-90°	190.0	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°	8522.0	100.0
0°-180°	8522.0	100.0



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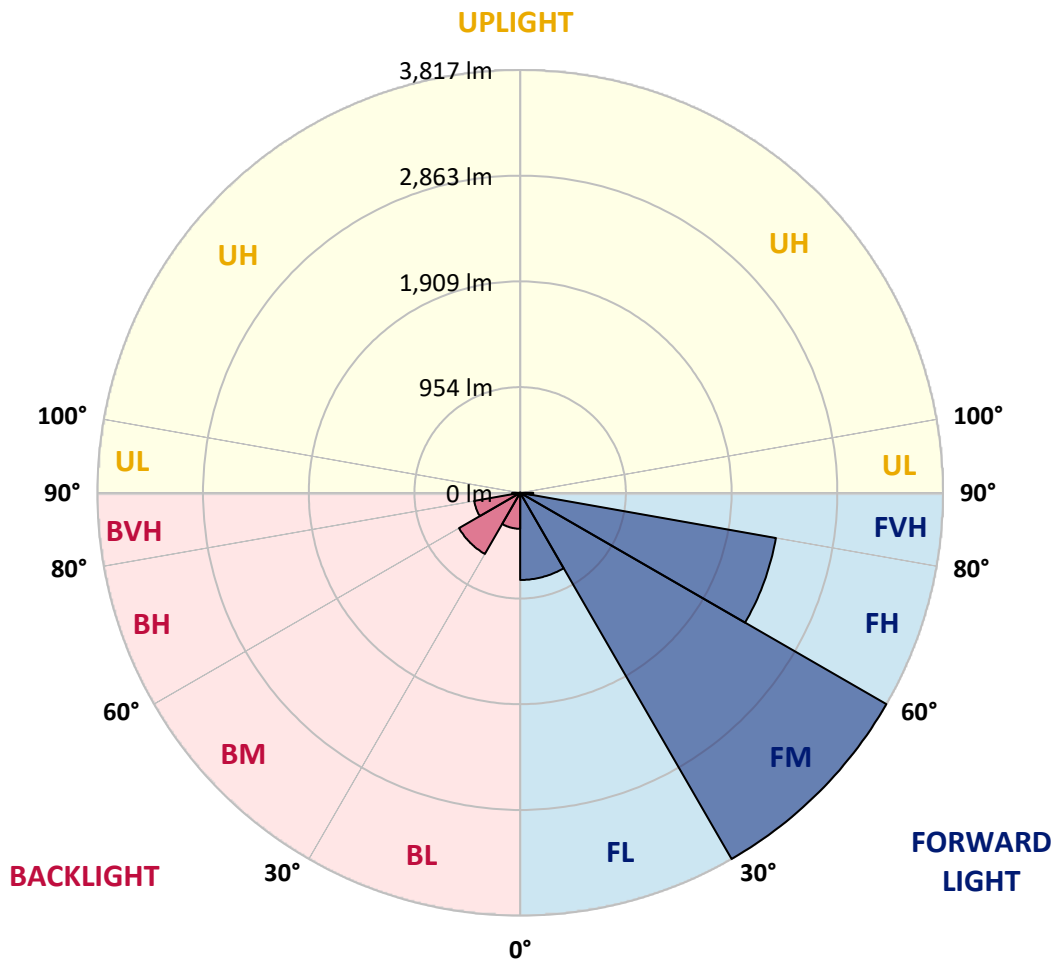
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	786.8	9.2			
FM	(30°-60°)	3817.4	44.8			
FH	(60°-80°)	2344.3	27.5			G2/5000
FVH	(80°-90°)	118.2	1.4			G2/225
BL	(0°-30°)	324.8	3.8	B1/500		
BM	(30°-60°)	637.3	7.5	B1/1000		
BH	(60°-80°)	421.4	4.9	B1/500		G1/500
BVH	(80°-90°)	71.7	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°	844.4	844.4	844.4	844.4	844.4	844.4	844.4	844.4	844.4	844.4	844.4
2.5°	1197.2	1200.8	1193.6	1177.6	1154.4	1111.7	1074.3	1008.3	949.6	942.4	880.1
5°	1407.4	1411.0	1402.1	1382.5	1357.5	1311.2	1259.5	1174.0	1079.6	1061.8	930.0
7.5°	1551.7	1553.5	1542.8	1523.2	1503.6	1457.3	1405.6	1309.4	1193.6	1179.4	994.1
10°	1674.6	1678.2	1664.0	1651.5	1630.1	1583.8	1530.3	1428.8	1309.4	1289.8	1060.0
12.5°	1788.7	1792.2	1783.3	1772.6	1765.5	1722.7	1664.0	1542.8	1414.5	1393.2	1138.4
15°	1865.3	1868.8	1870.6	1884.9	1893.8	1863.5	1804.7	1672.9	1528.6	1509.0	1231.0
17.5°	1843.9	1852.8	1879.5	1931.2	1986.4	1988.2	1940.1	1801.1	1640.8	1619.4	1325.5
20°	1781.5	1788.7	1820.7	1899.1	2007.8	2070.1	2066.6	1931.2	1745.9	1722.7	1412.8
22.5°	1833.2	1842.1	1842.1	1890.2	1997.1	2112.9	2159.2	2059.5	1851.0	1829.6	1500.1
25°	2054.1	2059.5	2022.0	2002.4	2041.6	2148.5	2235.8	2198.4	1979.3	1954.3	1594.5
27.5°	2362.3	2353.4	2307.1	2228.7	2185.9	2214.4	2303.5	2330.2	2127.2	2096.9	1692.5
30°	2668.7	2663.4	2609.9	2504.8	2408.6	2348.1	2378.3	2447.8	2287.5	2251.9	1786.9
32.5°	2955.6	2946.7	2887.9	2764.9	2656.3	2544.0	2485.2	2554.7	2458.5	2417.5	1892.0
35°	3219.2	3196.1	3137.3	3009.0	2896.8	2789.9	2645.6	2656.3	2643.8	2601.0	2007.8
37.5°	3433.0	3415.2	3351.1	3231.7	3112.3	3010.8	2859.4	2772.1	2843.3	2802.4	2141.4
40°	3621.9	3602.3	3536.3	3417.0	3306.5	3210.3	3091.0	2912.8	3067.8	3021.5	2291.1
42.5°	3764.4	3750.1	3696.7	3579.1	3472.2	3384.9	3326.1	3091.0	3301.2	3256.6	2455.0
45°	3841.0	3826.7	3798.2	3703.8	3605.8	3538.1	3543.5	3303.0	3545.3	3507.8	2649.1
47.5°	3746.6	3757.3	3782.2	3764.4	3703.8	3671.7	3737.7	3522.1	3817.8	3782.2	2859.4
50°	3493.6	3504.3	3604.0	3727.0	3748.3	3787.5	3912.2	3775.1	4106.4	4077.9	3119.5
52.5°	2871.8	2930.6	3206.8	3500.7	3702.0	3864.1	4106.4	4151.0	4592.8	4592.8	3579.1
55°	2169.9	2221.6	2536.9	3050.0	3522.1	3871.3	4249.0	4405.7	4943.8	4950.9	3819.6
57.5°	1758.4	1790.4	1945.4	2471.0	3144.4	3782.2	4418.2	4624.9	5235.9	5268.0	4129.6
60°	1427.0	1444.8	1546.4	1911.6	2622.4	3541.7	4539.3	4938.4	5652.8	5697.3	4525.1
62.5°	1147.3	1165.1	1232.8	1451.9	2057.7	3091.0	4518.0	5264.4	6208.6	6281.7	5043.5
65°	915.7	935.3	979.8	1115.2	1525.0	2531.6	4298.8	5431.9	6784.1	6855.3	5387.4
67.5°	714.4	732.2	762.5	851.6	1074.3	1893.8	3780.4	5255.5	7042.4	7103.0	5405.2
70°	539.8	548.7	573.7	630.7	767.8	1257.8	2959.1	4664.1	6810.8	6866.0	5048.9
72.5°	418.7	416.9	431.1	459.6	536.2	865.8	1961.5	3792.9	6021.6	6078.6	4307.7
75°	342.1	340.3	349.2	358.1	388.4	580.8	1158.0	2855.8	4860.0	4751.3	3231.7
77.5°	288.6	286.8	295.7	297.5	310.0	400.8	659.2	1879.5	3242.4	3055.3	1820.7
80°	244.1	242.3	253.0	256.5	265.4	294.0	379.5	1017.3	1628.3	1542.8	869.4
82.5°	183.5	190.6	210.2	219.1	229.8	217.3	235.2	448.9	755.4	721.5	377.7
85°	89.1	105.1	158.6	176.4	188.8	137.2	160.3	212.0	340.3	324.2	153.2
87.5°	30.3	26.7	94.4	112.2	122.9	62.4	89.1	117.6	140.7	128.3	48.1
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°	844.4	844.4	844.4	844.4	844.4	844.4	844.4	844.4	844.4	844.4	844.4
2.5°	853.4	826.6	787.4	757.2	737.6	721.5	714.4	712.6	709.1	707.3	707.3
5°	871.2	823.1	762.5	730.4	721.5	714.4	718.0	719.7	719.7	719.7	719.7
7.5°	897.9	830.2	757.2	735.8	734.0	734.0	744.7	750.0	753.6	753.6	753.6
10°	933.5	842.7	766.1	748.2	753.6	757.2	769.6	776.7	780.3	782.1	783.9
12.5°	981.6	869.4	783.9	769.6	776.7	778.5	787.4	791.0	794.6	796.3	796.3
15°	1045.8	908.6	812.4	794.6	796.3	794.6	794.6	791.0	789.2	789.2	792.8
17.5°	1111.7	946.0	837.3	812.4	805.3	791.0	780.3	771.4	766.1	762.5	764.3
20°	1177.6	979.8	851.6	815.9	796.3	773.2	753.6	741.1	734.0	726.9	730.4
22.5°	1243.5	1011.9	856.9	805.3	776.7	742.9	721.5	701.9	685.9	675.2	677.0
25°	1316.6	1047.5	856.9	792.8	750.0	714.4	687.7	655.6	632.4	623.5	627.1
27.5°	1389.6	1077.8	848.0	769.6	719.7	684.1	644.9	607.5	593.3	587.9	589.7
30°	1462.6	1101.0	828.4	741.1	687.7	648.5	596.8	571.9	554.1	539.8	541.6
32.5°	1535.7	1117.0	801.7	705.5	653.8	603.9	561.2	532.7	500.6	482.8	484.6
35°	1619.4	1129.5	769.6	669.9	616.4	564.7	532.7	486.4	452.5	438.3	434.7
37.5°	1706.7	1138.4	735.8	630.7	579.0	536.2	504.2	447.2	415.1	395.5	393.7
40°	1801.1	1142.0	694.8	589.7	543.4	518.4	466.8	424.0	368.8	356.3	356.3
42.5°	1913.4	1140.2	653.8	548.7	504.2	477.5	440.0	420.4	372.3	359.9	352.7
45°	2041.6	1140.2	609.3	500.6	465.0	425.8	409.8	397.3	365.2	370.6	374.1
47.5°	2187.7	1136.6	555.8	461.4	432.9	399.1	390.2	363.4	351.0	354.5	358.1
50°	2389.0	1142.0	507.7	429.3	409.8	381.2	370.6	356.3	351.0	352.7	351.0
52.5°	2668.7	1124.1	461.4	409.8	391.9	354.5	354.5	352.7	354.5	352.7	352.7
55°	2821.9	1085.0	427.6	399.1	379.5	342.1	349.2	352.7	356.3	354.5	354.5
57.5°	3039.3	1058.2	400.8	391.9	372.3	338.5	345.6	352.7	354.5	352.7	352.7
60°	3295.8	1040.4	383.0	393.7	367.0	338.5	347.4	352.7	351.0	349.2	349.2
62.5°	3593.4	1033.3	370.6	399.1	361.7	340.3	347.4	352.7	345.6	343.8	343.8
65°	3705.6	969.2	354.5	402.6	365.2	340.3	345.6	347.4	338.5	336.7	334.9
67.5°	3532.8	858.7	331.4	395.5	375.9	340.3	340.3	338.5	327.8	326.0	322.5
70°	3146.2	712.6	295.7	372.3	383.0	342.1	333.1	324.2	313.5	313.5	306.4
72.5°	2576.1	561.2	249.4	331.4	377.7	347.4	318.9	306.4	294.0	294.0	286.8
75°	1856.4	418.7	199.5	276.1	354.5	345.6	301.1	285.0	270.8	269.0	260.1
77.5°	1058.2	294.0	162.1	215.6	315.3	336.7	285.0	260.1	244.1	238.7	233.4
80°	543.4	197.8	131.8	169.2	261.9	311.8	272.6	231.6	213.8	204.9	196.0
82.5°	258.3	131.8	101.5	124.7	197.8	272.6	256.5	199.5	179.9	169.2	158.6
85°	115.8	78.4	67.7	80.2	140.7	212.0	226.3	163.9	140.7	176.4	130.1
87.5°	37.4	35.6	35.6	37.4	67.7	92.6	165.7	121.1	112.2	92.6	78.4
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)