

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: P234782

Luminaire Tested: **ARCH-M-AF48-70-D-U-T2R-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234782
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-AF48-70-D-U-T2R-8027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 470mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7776 lumens
Efficiency: N/A
Efficacy: 106.5 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G2

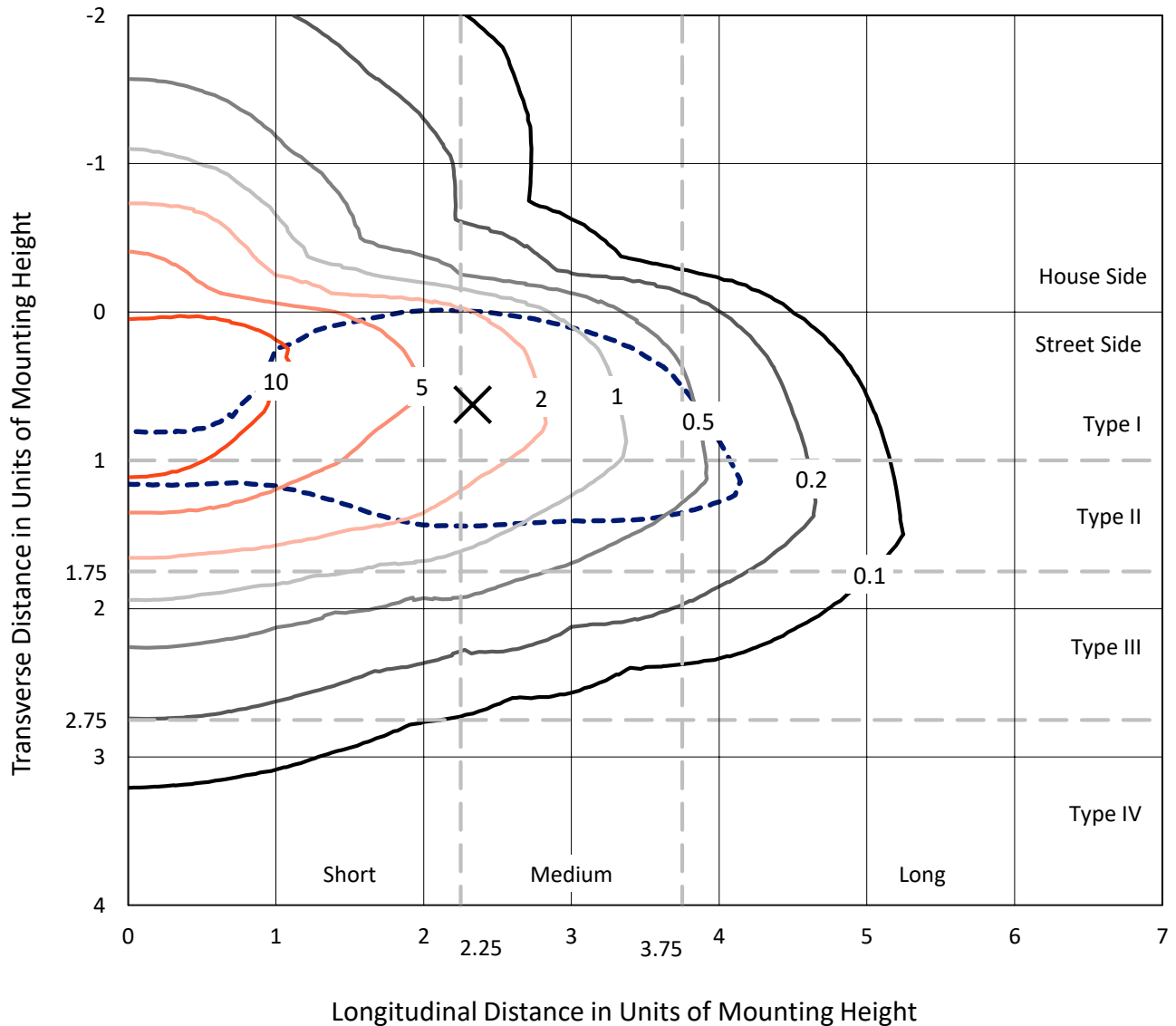
Input Watts (W): 73
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

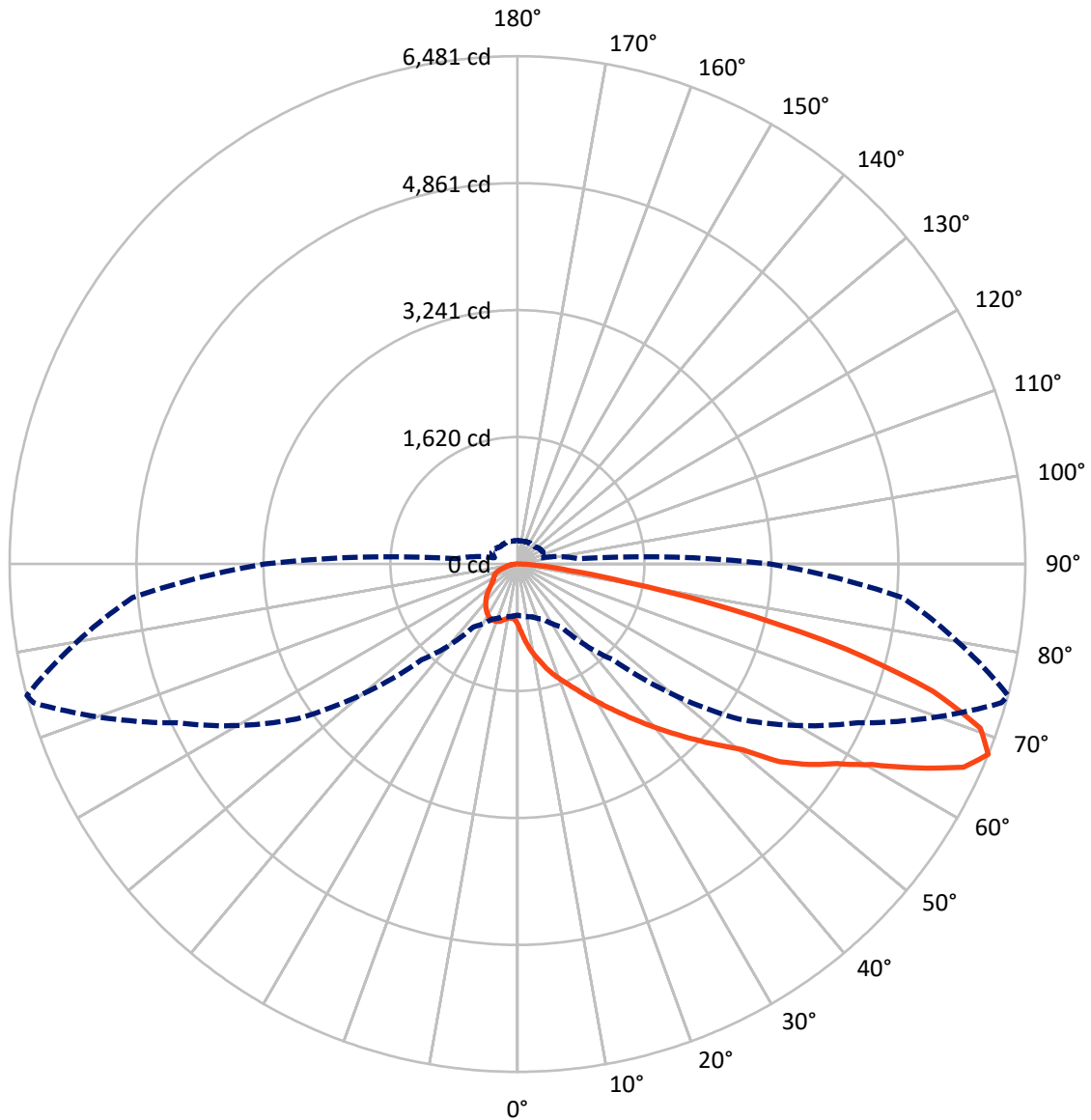


Based on 10 foot mounting height. Maximum calculated value = 16.1 fc
 Type II - Medium - Semi-Cutoff

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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	1327.9	0.0	1327.9
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	6448.1	0.0	6448.1
	% Fixture	82.9	0.0	82.9
Total	Lumens	7776.0	0.0	7776.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.5	1.2
10°-20°	327.1	4.2
20°-30°	596.7	7.7
30°-40°	979.4	12.6
40°-50°	1416.3	18.2
50°-60°	1669.1	21.5
60°-70°	1622.0	20.9
70°-80°	901.6	11.6
80°-90°	173.4	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°	7776.0	100.0
0°-180°	7776.0	100.0



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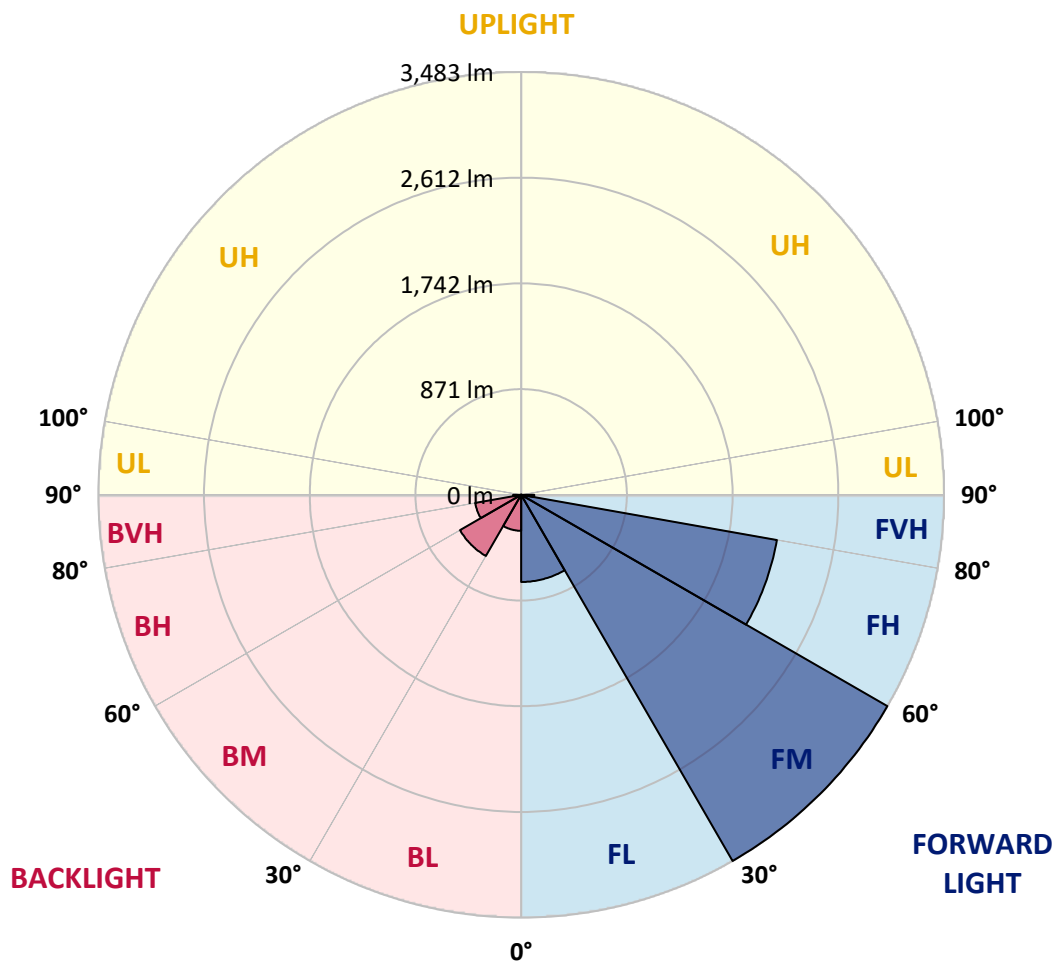
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	717.9	9.2			
FM (30°-60°)	3483.2	44.8			
FH (60°-80°)	2139.1	27.5			G2/5000
FVH (80°-90°)	107.9	1.4			G2/225
BL (0°-30°)	296.4	3.8	B1/500		
BM (30°-60°)	581.5	7.5	B1/1000		
BH (60°-80°)	384.5	4.9	B1/500		G1/500
BVH (80°-90°)	65.5	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°	770.5	770.5	770.5	770.5	770.5	770.5	770.5	770.5	770.5	770.5	770.5
2.5°	1092.4	1095.6	1089.1	1074.5	1053.4	1014.4	980.2	920.1	866.4	859.9	803.0
5°	1284.2	1287.5	1279.3	1261.5	1238.7	1196.4	1149.3	1071.3	985.1	968.8	848.6
7.5°	1415.9	1417.5	1407.8	1389.9	1372.0	1329.7	1282.6	1194.8	1089.1	1076.1	907.1
10°	1528.0	1531.3	1518.3	1506.9	1487.4	1445.1	1396.4	1303.7	1194.8	1176.9	967.2
12.5°	1632.1	1635.3	1627.2	1617.5	1611.0	1571.9	1518.3	1407.8	1290.7	1271.2	1038.7
15°	1702.0	1705.2	1706.9	1719.9	1728.0	1700.4	1646.7	1526.4	1394.7	1376.9	1123.3
17.5°	1682.5	1690.6	1715.0	1762.1	1812.5	1814.1	1770.3	1643.5	1497.2	1477.7	1209.4
20°	1625.6	1632.1	1661.3	1732.9	1832.0	1888.9	1885.7	1762.1	1593.1	1571.9	1289.1
22.5°	1672.7	1680.9	1680.9	1724.7	1822.3	1927.9	1970.2	1879.2	1689.0	1669.5	1368.7
25°	1874.3	1879.2	1845.0	1827.2	1862.9	1960.5	2040.1	2006.0	1806.0	1783.3	1454.9
27.5°	2155.5	2147.4	2105.1	2033.6	1994.6	2020.6	2101.9	2126.3	1940.9	1913.3	1544.3
30°	2435.1	2430.2	2381.5	2285.6	2197.8	2142.5	2170.2	2233.5	2087.2	2054.7	1630.5
32.5°	2696.8	2688.7	2635.1	2522.9	2423.7	2321.3	2267.7	2331.1	2243.3	2205.9	1726.4
35°	2937.4	2916.3	2862.6	2745.6	2643.2	2545.7	2414.0	2423.7	2412.4	2373.3	1832.0
37.5°	3132.5	3116.2	3057.7	2948.8	2839.9	2747.2	2609.1	2529.4	2594.4	2557.0	1953.9
40°	3304.8	3286.9	3226.8	3117.9	3017.1	2929.3	2820.4	2657.8	2799.3	2757.0	2090.5
42.5°	3434.9	3421.8	3373.1	3265.8	3168.3	3088.6	3035.0	2820.4	3012.2	2971.6	2240.1
45°	3504.8	3491.7	3465.7	3379.6	3290.2	3228.4	3233.3	3013.8	3234.9	3200.8	2417.2
47.5°	3418.6	3428.4	3451.1	3434.9	3379.6	3350.3	3410.5	3213.8	3483.6	3451.1	2609.1
50°	3187.8	3197.5	3288.6	3400.7	3420.2	3456.0	3569.8	3444.6	3747.0	3721.0	2846.4
52.5°	2620.4	2674.1	2926.0	3194.3	3378.0	3525.9	3747.0	3787.6	4190.7	4190.7	3265.8
55°	1980.0	2027.1	2314.8	2783.0	3213.8	3532.4	3877.0	4020.1	4511.0	4517.5	3485.2
57.5°	1604.4	1633.7	1775.1	2254.7	2869.2	3451.1	4031.4	4220.0	4777.6	4806.8	3768.1
60°	1302.1	1318.3	1411.0	1744.2	2392.9	3231.7	4142.0	4506.1	5158.0	5198.6	4129.0
62.5°	1046.9	1063.1	1124.9	1324.8	1877.5	2820.4	4122.5	4803.6	5665.1	5731.8	4602.0
65°	835.5	853.4	894.1	1017.6	1391.5	2310.0	3922.5	4956.4	6190.2	6255.2	4915.8
67.5°	651.9	668.1	695.7	777.0	980.2	1728.0	3449.5	4795.5	6425.9	6481.2	4932.0
70°	492.6	500.7	523.4	575.5	700.6	1147.7	2700.1	4255.8	6214.6	6265.0	4606.9
72.5°	382.0	380.4	393.4	419.4	489.3	790.0	1789.8	3460.9	5494.5	5546.5	3930.7
75°	312.1	310.5	318.6	326.7	354.4	529.9	1056.6	2605.8	4434.6	4335.4	2948.8
77.5°	263.3	261.7	269.8	271.5	282.9	365.8	601.5	1715.0	2958.6	2787.9	1661.3
80°	222.7	221.1	230.8	234.1	242.2	268.2	346.2	928.2	1485.8	1407.8	793.3
82.5°	167.4	173.9	191.8	199.9	209.7	198.3	214.6	409.6	689.2	658.4	344.6
85°	81.3	95.9	144.7	160.9	172.3	125.2	146.3	193.4	310.5	295.9	139.8
87.5°	27.6	24.4	86.2	102.4	112.2	56.9	81.3	107.3	128.4	117.0	43.9
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°	770.5	770.5	770.5	770.5	770.5	770.5	770.5	770.5	770.5	770.5	770.5
2.5°	778.7	754.3	718.5	690.9	673.0	658.4	651.9	650.2	647.0	645.4	645.4
5°	794.9	751.0	695.7	666.5	658.4	651.9	655.1	656.7	656.7	656.7	656.7
7.5°	819.3	757.5	690.9	671.4	669.7	669.7	679.5	684.4	687.6	687.6	687.6
10°	851.8	768.9	699.0	682.7	687.6	690.9	702.3	708.8	712.0	713.6	715.3
12.5°	895.7	793.3	715.3	702.3	708.8	710.4	718.5	721.8	725.0	726.6	726.6
15°	954.2	829.0	741.3	725.0	726.6	725.0	725.0	721.8	720.1	720.1	723.4
17.5°	1014.4	863.2	764.0	741.3	734.8	721.8	712.0	703.9	699.0	695.7	697.4
20°	1074.5	894.1	777.0	744.5	726.6	705.5	687.6	676.2	669.7	663.2	666.5
22.5°	1134.7	923.3	781.9	734.8	708.8	677.9	658.4	640.5	625.8	616.1	617.7
25°	1201.3	955.8	781.9	723.4	684.4	651.9	627.5	598.2	577.1	569.0	572.2
27.5°	1268.0	983.5	773.8	702.3	656.7	624.2	588.5	554.3	541.3	536.4	538.1
30°	1334.6	1004.6	755.9	676.2	627.5	591.7	544.6	521.8	505.6	492.6	494.2
32.5°	1401.3	1019.2	731.5	643.7	596.6	551.1	512.1	486.0	456.8	440.5	442.2
35°	1477.7	1030.6	702.3	611.2	562.5	515.3	486.0	443.8	412.9	399.9	396.6
37.5°	1557.3	1038.7	671.4	575.5	528.3	489.3	460.0	408.0	378.8	360.9	359.3
40°	1643.5	1042.0	634.0	538.1	495.8	473.0	425.9	386.9	336.5	325.1	325.1
42.5°	1745.9	1040.4	596.6	500.7	460.0	435.7	401.5	383.6	339.7	328.4	321.9
45°	1862.9	1040.4	555.9	456.8	424.3	388.5	373.9	362.5	333.2	338.1	341.4
47.5°	1996.2	1037.1	507.2	421.0	395.0	364.1	356.0	331.6	320.2	323.5	326.7
50°	2179.9	1042.0	463.3	391.8	373.9	347.9	338.1	325.1	320.2	321.9	320.2
52.5°	2435.1	1025.7	421.0	373.9	357.6	323.5	323.5	321.9	323.5	321.9	321.9
55°	2574.9	990.0	390.1	364.1	346.2	312.1	318.6	321.9	325.1	323.5	323.5
57.5°	2773.2	965.6	365.8	357.6	339.7	308.9	315.4	321.9	323.5	321.9	321.9
60°	3007.3	949.3	349.5	359.3	334.9	308.9	317.0	321.9	320.2	318.6	318.6
62.5°	3278.8	942.8	338.1	364.1	330.0	310.5	317.0	321.9	315.4	313.7	313.7
65°	3381.2	884.3	323.5	367.4	333.2	310.5	315.4	317.0	308.9	307.2	305.6
67.5°	3223.5	783.5	302.4	360.9	343.0	310.5	310.5	308.9	299.1	297.5	294.2
70°	2870.8	650.2	269.8	339.7	349.5	312.1	304.0	295.9	286.1	286.1	279.6
72.5°	2350.6	512.1	227.6	302.4	344.6	317.0	291.0	279.6	268.2	268.2	261.7
75°	1693.9	382.0	182.1	252.0	323.5	315.4	274.7	260.1	247.1	245.5	237.3
77.5°	965.6	268.2	147.9	196.7	287.7	307.2	260.1	237.3	222.7	217.8	213.0
80°	495.8	180.4	120.3	154.4	239.0	284.5	248.7	211.3	195.1	186.9	178.8
82.5°	235.7	120.3	92.7	113.8	180.4	248.7	234.1	182.1	164.2	154.4	144.7
85°	105.7	71.5	61.8	73.2	128.4	193.4	206.4	149.6	128.4	160.9	118.7
87.5°	34.1	32.5	32.5	34.1	61.8	84.5	151.2	110.5	102.4	84.5	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

(END OF REPORT)