

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: P231045

Luminaire Tested: **ARCH-M-AF48-130-D-U-T2R-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231045
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-AF48-130-D-U-T2R-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 845mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16251 lumens
Efficiency: N/A
Efficacy: 124.1 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 - G3

Input Watts (W): 131
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

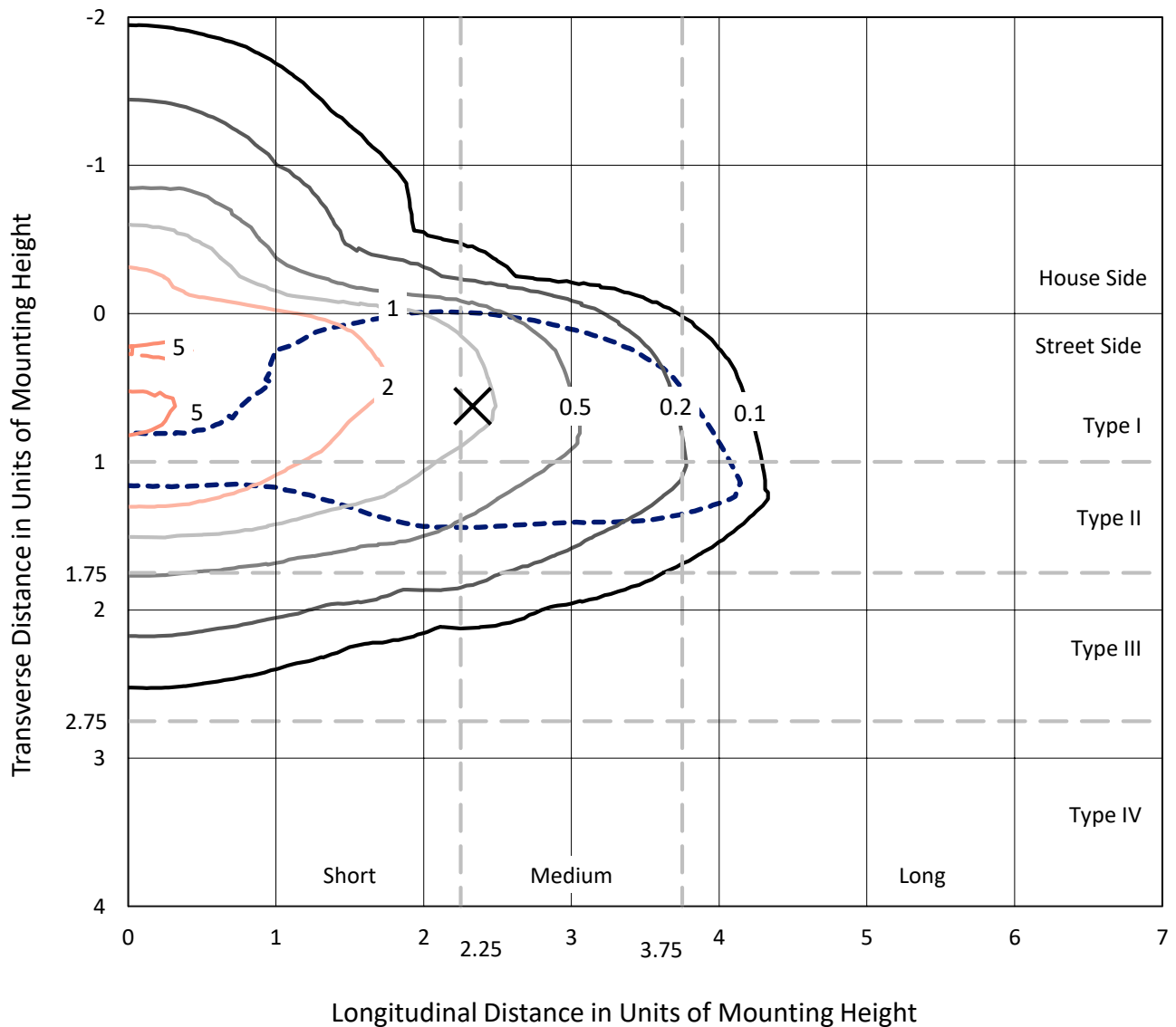


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

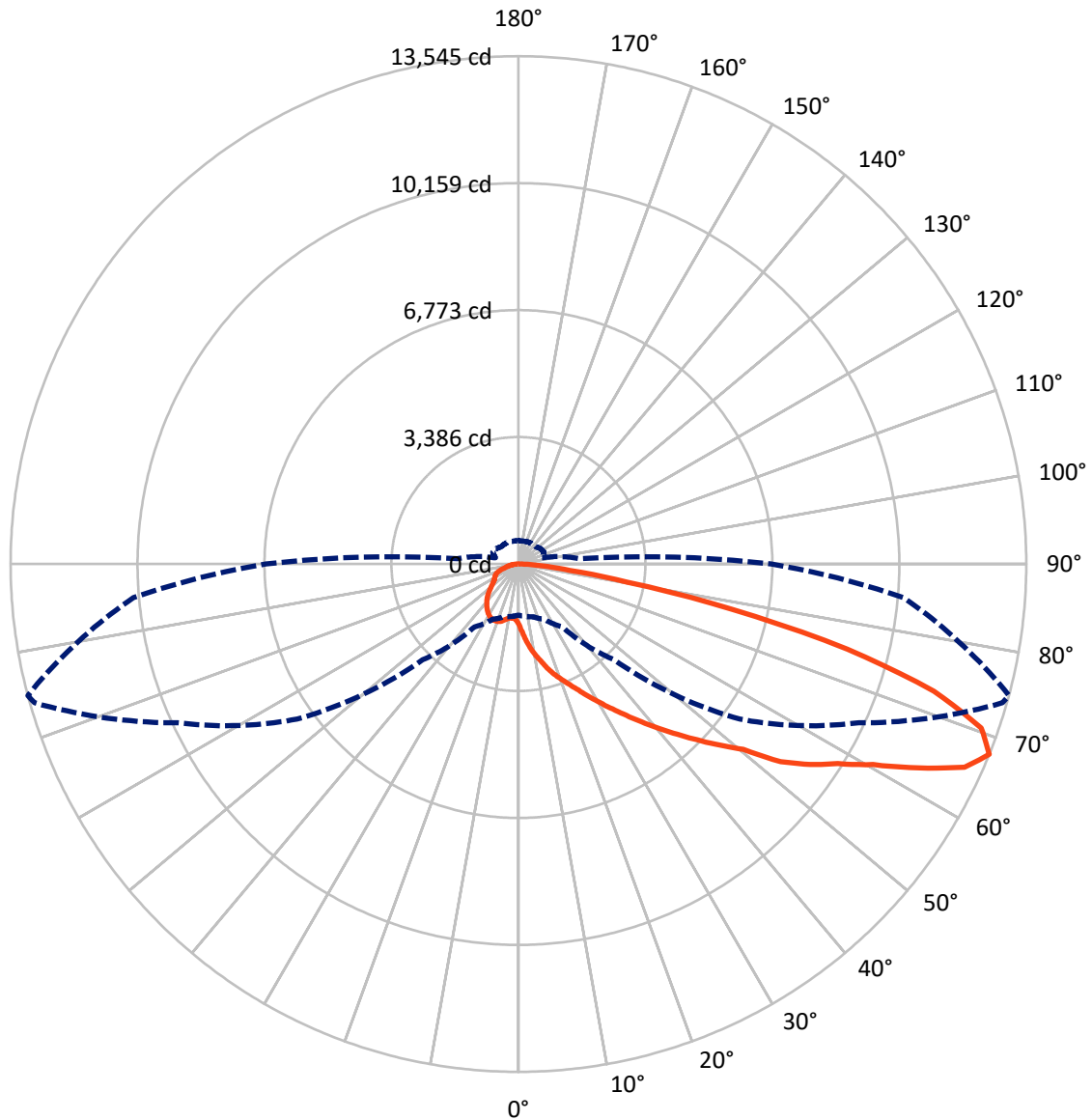


Based on 25 foot mounting height. Maximum calculated value = 5.4 fc
 Type II - Medium - Semi-Cutoff

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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	2775.1	0.0	2775.1
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	13475.9	0.0	13475.9
	% Fixture	82.9	0.0	82.9
Total	Lumens	16251.0	0.0	16251.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.2	1.2
10°-20°	683.7	4.2
20°-30°	1247.0	7.7
30°-40°	2046.8	12.6
40°-50°	2959.9	18.2
50°-60°	3488.3	21.5
60°-70°	3389.7	20.9
70°-80°	1884.2	11.6
80°-90°	362.3	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°	16251.0	100.0
0°-180°	16251.0	100.0

Coefficient of Utilization



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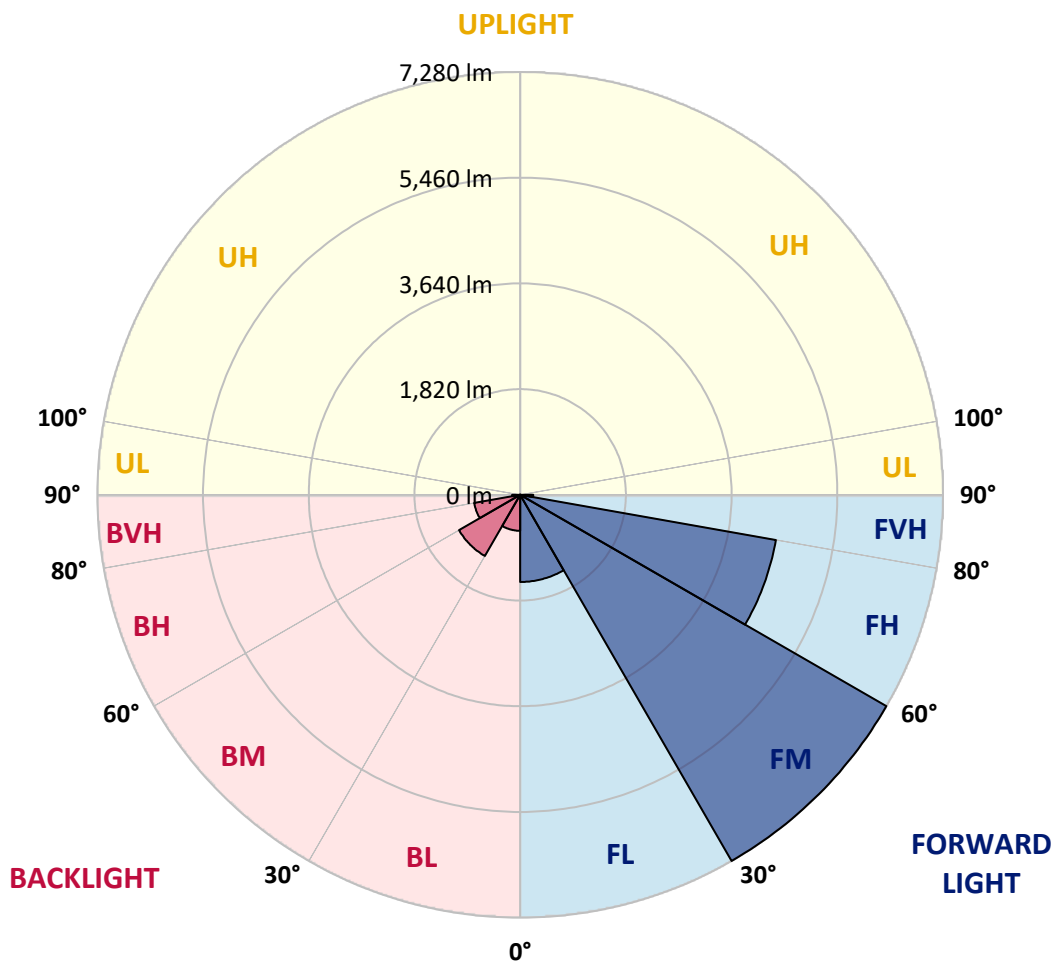
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1500.4	9.2			
FM (30°-60°)	7279.6	44.8			
FH (60°-80°)	4470.5	27.5			G2/5000
FVH (80°-90°)	225.5	1.4			G3/500
BL (0°-30°)	619.4	3.8	B2/1000		
BM (30°-60°)	1215.3	7.5	B2/2500		
BH (60°-80°)	803.5	4.9	B2/1000		G2/1000
BVH (80°-90°)	136.8	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-G3

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	1610.3	1610.3	1610.3	1610.3	1610.3	1610.3	1610.3	1610.3	1610.3	1610.3	1610.3
2.5°	2283.0	2289.8	2276.2	2245.6	2201.4	2119.9	2048.6	1922.9	1810.8	1797.2	1678.3
5°	2683.9	2690.7	2673.7	2636.3	2588.7	2500.4	2401.9	2238.8	2058.8	2024.8	1773.4
7.5°	2959.0	2962.4	2942.1	2904.7	2867.3	2779.0	2680.5	2497.0	2276.2	2249.0	1895.7
10°	3193.5	3200.2	3173.1	3149.3	3108.5	3020.2	2918.3	2724.6	2497.0	2459.6	2021.4
12.5°	3410.9	3417.7	3400.7	3380.3	3366.7	3285.2	3173.1	2942.1	2697.4	2656.7	2170.9
15°	3557.0	3563.8	3567.2	3594.3	3611.3	3553.6	3441.5	3190.1	2914.9	2877.5	2347.5
17.5°	3516.2	3533.2	3584.1	3682.7	3788.0	3791.4	3699.6	3434.7	3128.9	3088.1	2527.6
20°	3397.3	3410.9	3472.0	3621.5	3828.7	3947.6	3940.9	3682.7	3329.3	3285.2	2694.0
22.5°	3495.8	3512.8	3512.8	3604.5	3808.4	4029.2	4117.5	3927.3	3529.8	3489.0	2860.5
25°	3917.1	3927.3	3855.9	3818.6	3893.3	4097.1	4263.6	4192.3	3774.4	3726.8	3040.6
27.5°	4504.8	4487.8	4399.5	4250.0	4168.5	4222.8	4392.7	4443.7	4056.4	3998.6	3227.4
30°	5089.1	5078.9	4977.0	4776.6	4593.1	4477.6	4535.4	4667.9	4362.1	4294.2	3407.5
32.5°	5636.1	5619.1	5507.0	5272.6	5065.4	4851.3	4739.2	4871.7	4688.3	4610.1	3607.9
35°	6138.9	6094.7	5982.6	5738.0	5524.0	5320.2	5045.0	5065.4	5041.6	4960.0	3828.7
37.5°	6546.6	6512.6	6390.3	6162.7	5935.1	5741.4	5452.6	5286.2	5422.1	5343.9	4083.5
40°	6906.7	6869.3	6743.6	6516.0	6305.4	6121.9	5894.3	5554.6	5850.1	5761.8	4368.9
42.5°	7178.5	7151.3	7049.4	6825.2	6621.3	6454.8	6342.7	5894.3	6295.2	6210.2	4681.5
45°	7324.6	7297.4	7243.0	7063.0	6876.1	6747.0	6757.2	6298.6	6760.6	6689.3	5051.8
47.5°	7144.5	7164.9	7212.4	7178.5	7063.0	7001.8	7127.5	6716.4	7280.4	7212.4	5452.6
50°	6662.1	6682.5	6872.7	7107.1	7147.9	7222.6	7460.4	7198.9	7830.8	7776.4	5948.7
52.5°	5476.4	5588.5	6115.1	6675.7	7059.6	7368.7	7830.8	7915.7	8758.2	8758.2	6825.2
55°	4137.9	4236.4	4837.7	5816.2	6716.4	7382.3	8102.5	8401.5	9427.5	9441.1	7283.8
57.5°	3353.1	3414.3	3709.8	4712.0	5996.2	7212.4	8425.3	8819.4	9984.6	10045.8	7874.9
60°	2721.2	2755.2	2948.8	3645.3	5000.8	6753.8	8656.3	9417.3	10779.6	10864.5	8629.1
62.5°	2187.9	2221.8	2350.9	2768.8	3923.9	5894.3	8615.5	10039.0	11839.6	11978.8	9617.7
65°	1746.2	1783.6	1868.5	2126.7	2908.1	4827.5	8197.7	10358.3	12936.9	13072.8	10273.4
67.5°	1362.3	1396.3	1454.0	1623.9	2048.6	3611.3	7209.0	10022.0	13429.5	13545.0	10307.4
70°	1029.4	1046.4	1093.9	1202.6	1464.2	2398.5	5642.9	8894.1	12987.8	13093.2	9627.9
72.5°	798.4	795.0	822.1	876.5	1022.6	1651.1	3740.4	7232.8	11482.8	11591.5	8214.6
75°	652.3	648.9	665.9	682.9	740.6	1107.5	2208.2	5445.9	9267.8	9060.6	6162.7
77.5°	550.4	547.0	563.9	567.3	591.1	764.4	1257.0	3584.1	6183.1	5826.4	3472.0
80°	465.4	462.0	482.4	489.2	506.2	560.6	723.6	1939.9	3105.1	2942.1	1657.9
82.5°	349.9	363.5	400.9	417.9	438.3	414.5	448.4	856.1	1440.5	1375.9	720.2
85°	169.9	200.4	302.4	336.3	360.1	261.6	305.8	404.3	648.9	618.3	292.2
87.5°	57.8	51.0	180.1	214.0	234.4	118.9	169.9	224.2	268.4	244.6	91.7
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°	1610.3	1610.3	1610.3	1610.3	1610.3	1610.3	1610.3	1610.3	1610.3	1610.3	1610.3
2.5°	1627.3	1576.3	1501.6	1443.8	1406.5	1375.9	1362.3	1358.9	1352.1	1348.7	1348.7
5°	1661.3	1569.5	1454.0	1392.9	1375.9	1362.3	1369.1	1372.5	1372.5	1372.5	1372.5
7.5°	1712.2	1583.1	1443.8	1403.1	1399.7	1399.7	1420.1	1430.3	1437.1	1437.1	1437.1
10°	1780.2	1606.9	1460.8	1426.9	1437.1	1443.8	1467.6	1481.2	1488.0	1491.4	1494.8
12.5°	1871.9	1657.9	1494.8	1467.6	1481.2	1484.6	1501.6	1508.4	1515.2	1518.6	1518.6
15°	1994.2	1732.6	1549.2	1515.2	1518.6	1515.2	1515.2	1508.4	1505.0	1505.0	1511.8
17.5°	2119.9	1804.0	1596.7	1549.2	1535.6	1508.4	1488.0	1471.0	1460.8	1454.0	1457.4
20°	2245.6	1868.5	1623.9	1556.0	1518.6	1474.4	1437.1	1413.3	1399.7	1386.1	1392.9
22.5°	2371.3	1929.7	1634.1	1535.6	1481.2	1416.7	1375.9	1338.5	1308.0	1287.6	1291.0
25°	2510.6	1997.6	1634.1	1511.8	1430.3	1362.3	1311.4	1250.2	1206.0	1189.1	1195.8
27.5°	2649.9	2055.4	1617.1	1467.6	1372.5	1304.6	1229.8	1158.5	1131.3	1121.1	1124.5
30°	2789.2	2099.5	1579.7	1413.3	1311.4	1236.6	1138.1	1090.5	1056.6	1029.4	1032.8
32.5°	2928.5	2130.1	1528.8	1345.3	1246.8	1151.7	1070.1	1015.8	954.6	920.7	924.1
35°	3088.1	2153.9	1467.6	1277.4	1175.5	1076.9	1015.8	927.5	862.9	835.7	828.9
37.5°	3254.6	2170.9	1403.1	1202.6	1104.1	1022.6	961.4	852.7	791.6	754.2	750.8
40°	3434.7	2177.7	1324.9	1124.5	1036.2	988.6	890.1	808.6	703.2	679.5	679.5
42.5°	3648.7	2174.3	1246.8	1046.4	961.4	910.5	839.1	801.8	710.0	686.3	672.7
45°	3893.3	2174.3	1161.9	954.6	886.7	812.0	781.4	757.6	696.4	706.6	713.4
47.5°	4171.9	2167.5	1060.0	879.9	825.5	761.0	744.0	693.0	669.3	676.1	682.9
50°	4555.8	2177.7	968.2	818.7	781.4	727.0	706.6	679.5	669.3	672.7	669.3
52.5°	5089.1	2143.7	879.9	781.4	747.4	676.1	676.1	672.7	676.1	672.7	672.7
55°	5381.3	2068.9	815.3	761.0	723.6	652.3	665.9	672.7	679.5	676.1	676.1
57.5°	5795.8	2018.0	764.4	747.4	710.0	645.5	659.1	672.7	676.1	672.7	672.7
60°	6285.0	1984.0	730.4	750.8	699.8	645.5	662.5	672.7	669.3	665.9	665.9
62.5°	6852.3	1970.4	706.6	761.0	689.6	648.9	662.5	672.7	659.1	655.7	655.7
65°	7066.4	1848.1	676.1	767.8	696.4	648.9	659.1	662.5	645.5	642.1	638.7
67.5°	6736.8	1637.5	631.9	754.2	716.8	648.9	648.9	645.5	625.1	621.7	614.9
70°	5999.6	1358.9	563.9	710.0	730.4	652.3	635.3	618.3	597.9	597.9	584.3
72.5°	4912.5	1070.1	475.6	631.9	720.2	662.5	608.1	584.3	560.6	560.6	547.0
75°	3540.0	798.4	380.5	526.6	676.1	659.1	574.1	543.6	516.4	513.0	496.0
77.5°	2018.0	560.6	309.2	411.1	601.3	642.1	543.6	496.0	465.4	455.2	445.0
80°	1036.2	377.1	251.4	322.7	499.4	594.5	519.8	441.6	407.7	390.7	373.7
82.5°	492.6	251.4	193.6	237.8	377.1	519.8	489.2	380.5	343.1	322.7	302.4
85°	220.8	149.5	129.1	152.9	268.4	404.3	431.5	312.6	268.4	336.3	248.0
87.5°	71.3	67.9	67.9	71.3	129.1	176.7	315.9	231.0	214.0	176.7	149.5
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)