

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: P231034

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231034
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
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 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: 18355.8 lumens
Efficiency: N/A
Efficacy: 121.6 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): 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

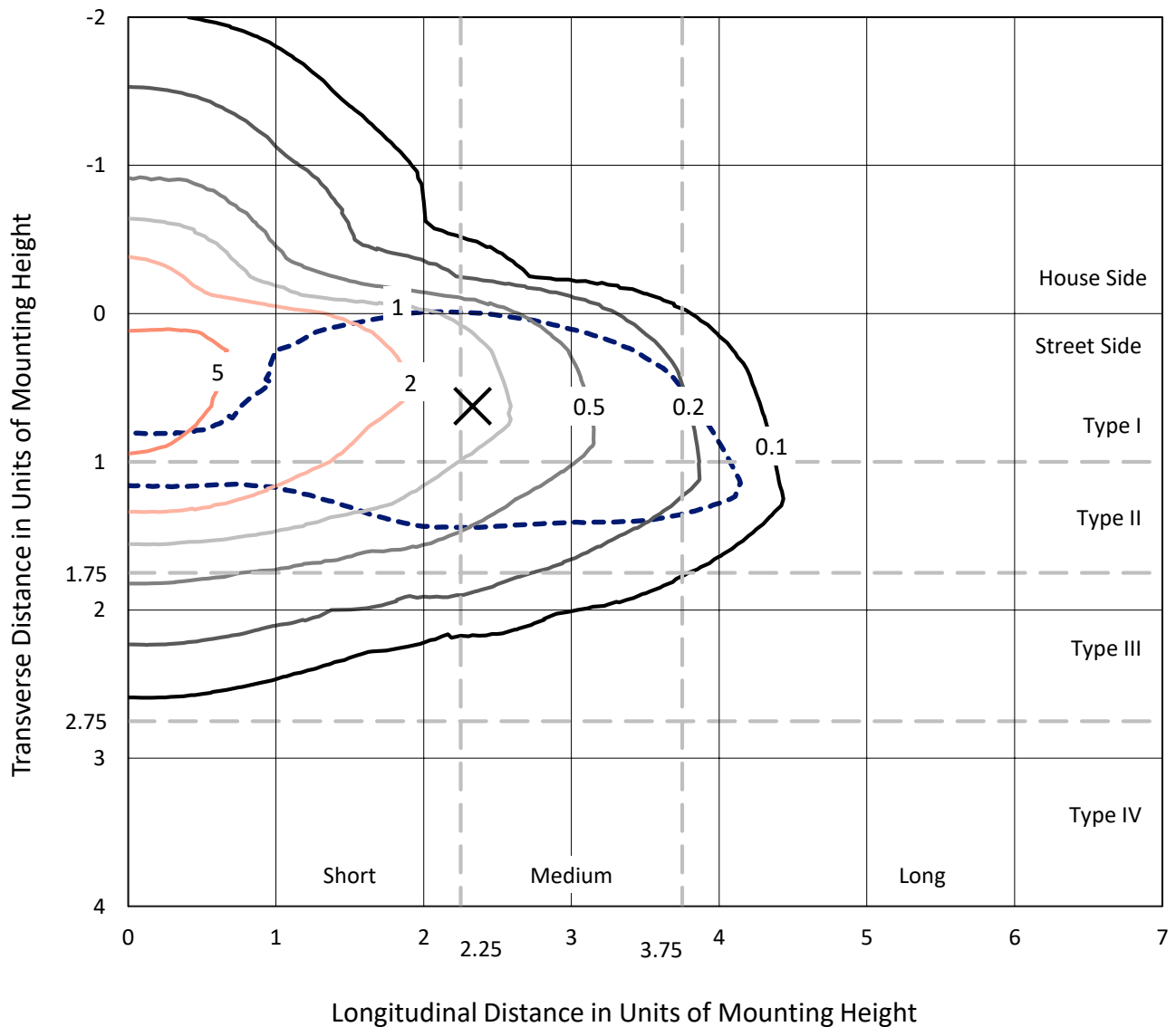


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

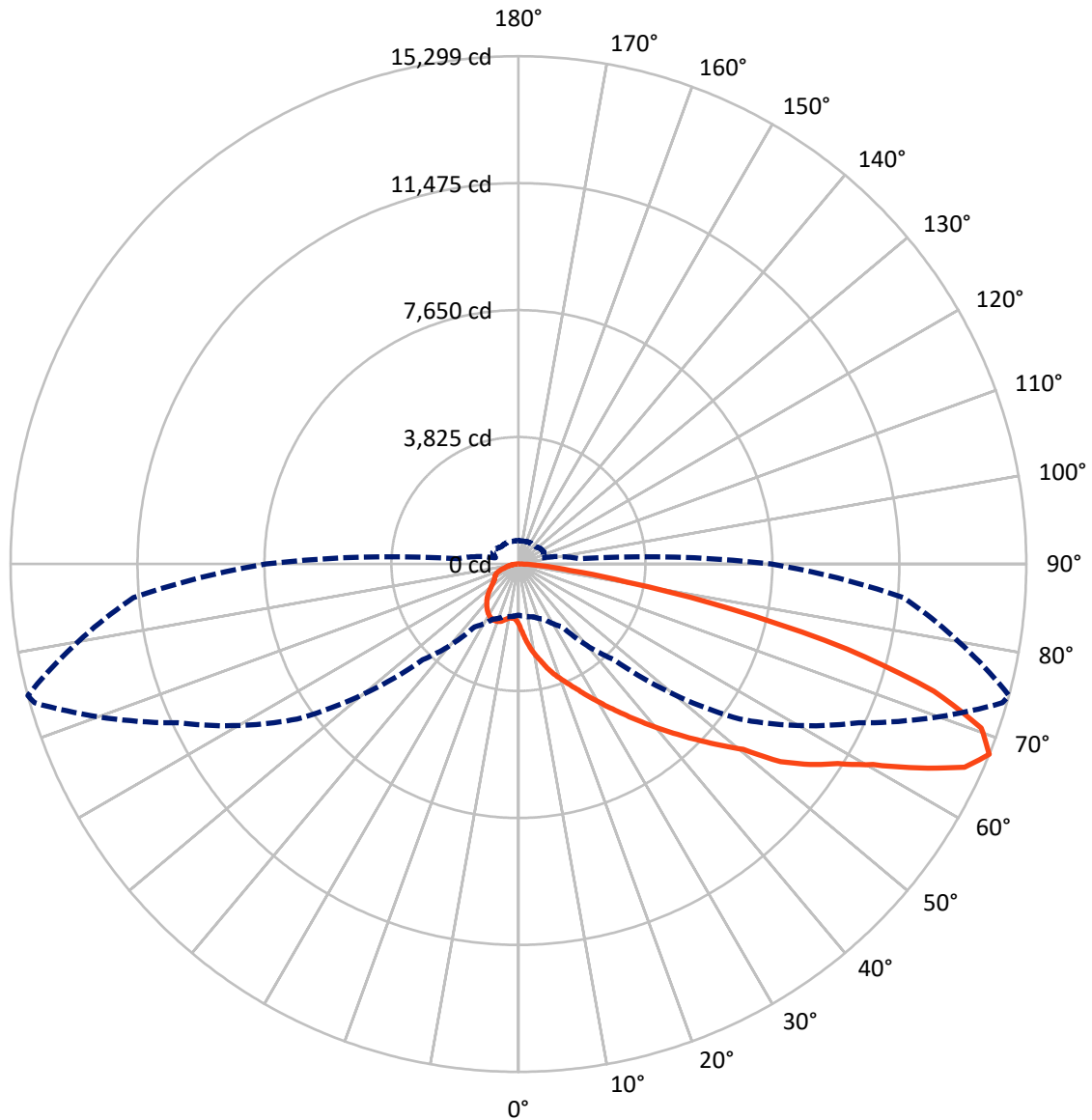


Based on 25 foot mounting height. Maximum calculated value = 6.1 fc
 Type II - Medium - Semi-Cutoff

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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	3134.5	0.0	3134.5
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	15221.3	0.0	15221.3
	% Fixture	82.9	0.0	82.9
Total	Lumens	18355.8	0.0	18355.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.7	1.2
10°-20°	772.2	4.2
20°-30°	1408.5	7.7
30°-40°	2311.9	12.6
40°-50°	3343.3	18.2
50°-60°	3940.0	21.5
60°-70°	3828.8	20.9
70°-80°	2128.3	11.6
80°-90°	409.2	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°	18355.8	100.0
0°-180°	18355.8	100.0

Coefficient of Utilization



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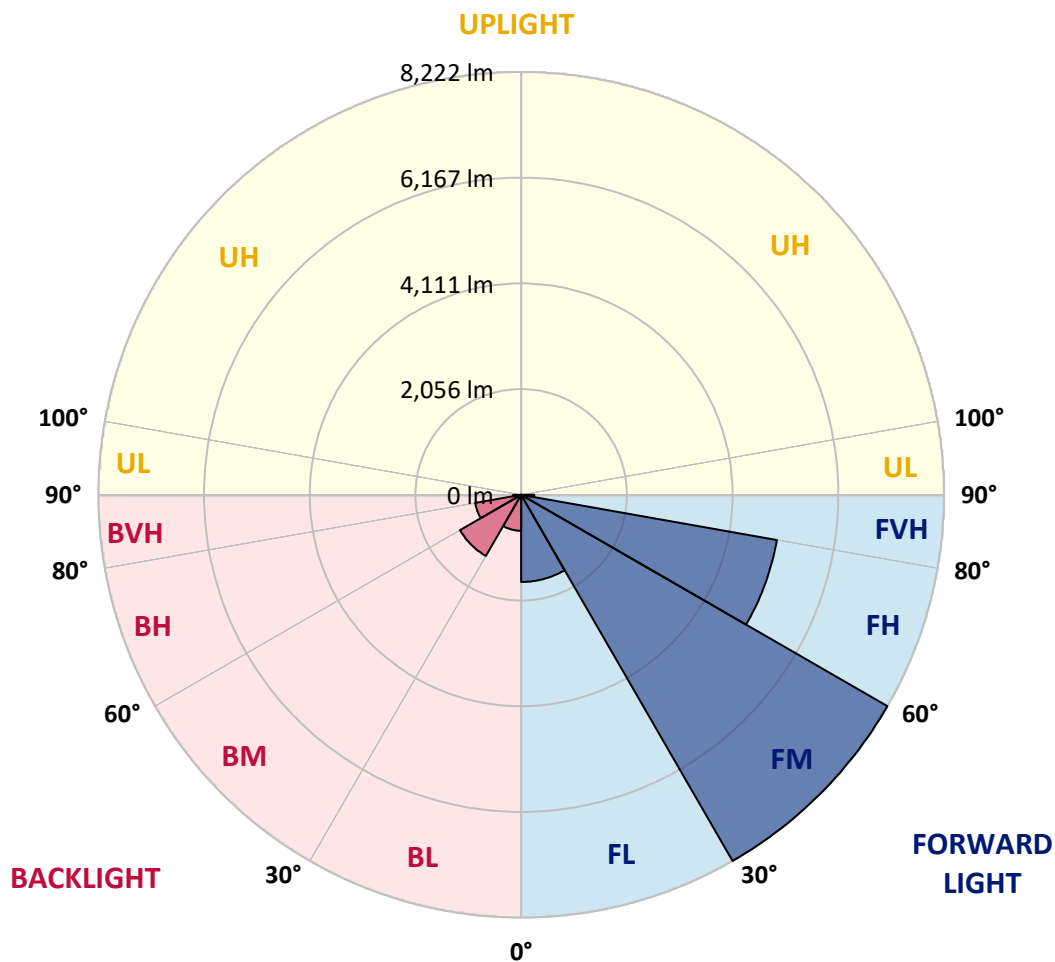
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1694.7	9.2			
FM (30°-60°)	8222.4	44.8			
FH (60°-80°)	5049.5	27.5			G3/7500
FVH (80°-90°)	254.7	1.4			G3/500
BL (0°-30°)	699.6	3.8	B2/1000		
BM (30°-60°)	1372.7	7.5	B2/2500		
BH (60°-80°)	907.6	4.9	B2/1000		G2/1000
BVH (80°-90°)	154.5	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°	1818.9	1818.9	1818.9	1818.9	1818.9	1818.9	1818.9	1818.9	1818.9	1818.9	1818.9
2.5°	2578.7	2586.3	2571.0	2536.5	2486.6	2394.5	2313.9	2171.9	2045.3	2029.9	1895.6
5°	3031.5	3039.2	3020.0	2977.7	2924.0	2824.3	2713.0	2528.7	2325.4	2287.0	2003.0
7.5°	3342.3	3346.2	3323.1	3280.9	3238.7	3138.9	3027.6	2820.4	2571.0	2540.3	2141.2
10°	3607.0	3614.7	3584.0	3557.2	3511.2	3411.3	3296.3	3077.5	2820.4	2778.2	2283.2
12.5°	3852.6	3860.3	3841.2	3818.2	3802.8	3710.7	3584.0	3323.1	3046.9	3000.7	2452.0
15°	4017.6	4025.3	4029.2	4059.9	4079.0	4013.9	3887.2	3603.2	3292.4	3250.2	2651.6
17.5°	3971.6	3990.8	4048.3	4159.6	4278.6	4282.5	4178.9	3879.5	3534.2	3488.2	2855.0
20°	3837.3	3852.6	3921.7	4090.6	4324.6	4458.9	4451.3	4159.6	3760.6	3710.7	3043.0
22.5°	3948.6	3967.8	3967.8	4071.3	4301.6	4551.0	4650.8	4435.9	3987.0	3940.9	3231.0
25°	4424.4	4435.9	4355.3	4313.2	4397.6	4627.8	4815.8	4735.2	4263.2	4209.5	3434.4
27.5°	5088.3	5069.1	4969.3	4800.5	4708.3	4769.8	4961.6	5019.2	4581.7	4516.5	3645.5
30°	5748.3	5736.8	5621.6	5395.2	5188.0	5057.6	5122.8	5272.5	4927.1	4850.3	3848.9
32.5°	6366.1	6346.9	6220.3	5955.5	5721.5	5479.6	5353.0	5502.7	5295.5	5207.2	4075.2
35°	6934.0	6884.2	6757.5	6481.2	6239.5	6009.2	5698.3	5721.5	5694.6	5602.5	4324.6
37.5°	7394.5	7356.1	7217.9	6960.9	6703.8	6485.0	6158.9	5970.9	6124.3	6036.1	4612.5
40°	7801.2	7759.1	7617.1	7359.9	7122.0	6914.8	6657.8	6274.0	6607.9	6508.1	4934.8
42.5°	8108.2	8077.5	7962.4	7709.2	7478.9	7290.9	7164.2	6657.8	7110.5	7014.6	5287.8
45°	8273.2	8242.5	8181.2	7977.8	7766.8	7620.9	7632.4	7114.3	7636.2	7555.6	5706.1
47.5°	8069.9	8092.9	8146.6	8108.2	7977.8	7908.6	8050.6	7586.3	8223.3	8146.6	6158.9
50°	7524.9	7547.9	7762.9	8027.6	8073.7	8158.1	8426.8	8131.2	8844.9	8783.6	6719.2
52.5°	6185.8	6312.3	6907.2	7540.3	7973.9	8323.1	8844.9	8940.9	9892.5	9892.5	7709.2
55°	4673.9	4785.2	5464.3	6569.5	7586.3	8338.5	9151.9	9489.6	10648.5	10663.9	8227.2
57.5°	3787.4	3856.5	4190.3	5322.3	6772.9	8146.6	9516.5	9961.6	11277.8	11346.9	8894.9
60°	3073.7	3112.0	3330.8	4117.5	5648.5	7628.6	9777.5	10637.1	12175.8	12271.7	9746.8
62.5°	2471.2	2509.6	2655.4	3127.4	4432.0	6657.8	9731.4	11339.2	13373.0	13530.4	10863.4
65°	1972.4	2014.6	2110.6	2402.2	3284.7	5452.8	9259.4	11699.9	14612.4	14766.0	11604.0
67.5°	1538.7	1577.1	1642.3	1834.3	2313.9	4079.0	8142.8	11320.1	15168.8	15299.4	11642.4
70°	1162.7	1181.9	1235.6	1358.4	1653.9	2709.2	6373.8	10046.1	14670.0	14789.0	10874.9
72.5°	901.7	897.9	928.6	990.0	1155.0	1864.9	4224.9	8169.6	12970.1	13092.8	9278.6
75°	736.7	732.9	752.1	771.3	836.6	1251.0	2494.3	6151.2	10468.2	10234.1	6960.9
77.5°	621.6	617.8	637.0	640.9	667.7	863.4	1419.8	4048.3	6983.9	6580.9	3921.7
80°	525.7	521.9	544.9	552.6	571.7	633.1	817.3	2191.1	3507.3	3323.1	1872.6
82.5°	395.3	410.6	452.8	472.0	495.0	468.1	506.6	967.0	1627.0	1554.1	813.6
85°	191.9	226.4	341.6	379.9	406.7	295.4	345.3	456.6	732.9	698.4	330.0
87.5°	65.3	57.6	203.4	241.7	264.7	134.3	191.9	253.3	303.1	276.3	103.6
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°	1818.9	1818.9	1818.9	1818.9	1818.9	1818.9	1818.9	1818.9	1818.9	1818.9	1818.9
2.5°	1838.0	1780.5	1696.1	1630.9	1588.6	1554.1	1538.7	1534.9	1527.3	1523.4	1523.4
5°	1876.4	1772.9	1642.3	1573.3	1554.1	1538.7	1546.4	1550.3	1550.3	1550.3	1550.3
7.5°	1934.0	1788.2	1630.9	1584.9	1581.0	1581.0	1604.0	1615.5	1623.2	1623.2	1623.2
10°	2010.7	1815.0	1650.0	1611.7	1623.2	1630.9	1657.7	1673.0	1680.7	1684.6	1688.4
12.5°	2114.3	1872.6	1688.4	1657.7	1673.0	1676.9	1696.1	1703.7	1711.4	1715.3	1715.3
15°	2252.5	1957.0	1749.9	1711.4	1715.3	1711.4	1711.4	1703.7	1699.9	1699.9	1707.6
17.5°	2394.5	2037.6	1803.6	1749.9	1734.4	1703.7	1680.7	1661.6	1650.0	1642.3	1646.2
20°	2536.5	2110.6	1834.3	1757.5	1715.3	1665.4	1623.2	1596.3	1581.0	1565.6	1573.3
22.5°	2678.4	2179.6	1845.7	1734.4	1673.0	1600.2	1554.1	1511.9	1477.3	1454.3	1458.2
25°	2835.7	2256.3	1845.7	1707.6	1615.5	1538.7	1481.2	1412.1	1362.3	1343.0	1350.7
27.5°	2993.1	2321.6	1826.6	1657.7	1550.3	1473.6	1389.1	1308.6	1277.9	1266.3	1270.2
30°	3150.4	2371.4	1784.3	1596.3	1481.2	1396.7	1285.5	1231.7	1193.4	1162.7	1166.6
32.5°	3307.7	2406.0	1726.7	1519.6	1408.3	1300.9	1208.7	1147.3	1078.3	1039.9	1043.7
35°	3488.2	2432.9	1657.7	1442.9	1327.7	1216.4	1147.3	1047.6	974.7	944.0	936.3
37.5°	3676.2	2452.0	1584.9	1358.4	1247.1	1155.0	1086.0	963.2	894.1	851.9	848.0
40°	3879.5	2459.7	1496.6	1270.2	1170.4	1116.7	1005.4	913.3	794.3	767.4	767.4
42.5°	4121.3	2455.9	1408.3	1181.9	1086.0	1028.4	947.8	905.6	802.0	775.1	759.7
45°	4397.6	2455.9	1312.3	1078.3	1001.6	917.1	882.6	855.7	786.6	798.2	805.9
47.5°	4712.2	2448.2	1197.3	993.9	932.4	859.6	840.4	782.8	756.0	763.6	771.3
50°	5145.9	2459.7	1093.6	924.7	882.6	821.2	798.2	767.4	756.0	759.7	756.0
52.5°	5748.3	2421.3	993.9	882.6	844.2	763.6	763.6	759.7	763.6	759.7	759.7
55°	6078.3	2336.9	921.0	859.6	817.3	736.7	752.1	759.7	767.4	763.6	763.6
57.5°	6546.5	2279.3	863.4	844.2	802.0	729.1	744.4	759.7	763.6	759.7	759.7
60°	7099.0	2241.0	825.0	848.0	790.4	729.1	748.3	759.7	756.0	752.1	752.1
62.5°	7739.9	2225.6	798.2	859.6	779.0	732.9	748.3	759.7	744.4	740.6	740.6
65°	7981.6	2087.5	763.6	867.3	786.6	732.9	744.4	748.3	729.1	725.3	721.4
67.5°	7609.4	1849.6	713.7	851.9	809.7	732.9	732.9	729.1	706.0	702.3	694.6
70°	6776.6	1534.9	637.0	802.0	825.0	736.7	717.6	698.4	675.4	675.4	660.0
72.5°	5548.8	1208.7	537.3	713.7	813.6	748.3	686.9	660.0	633.1	633.1	617.8
75°	3998.5	901.7	429.7	594.7	763.6	744.4	648.6	614.0	583.3	579.4	560.3
77.5°	2279.3	633.1	349.2	464.3	679.2	725.3	614.0	560.3	525.7	514.2	502.7
80°	1170.4	426.0	284.0	364.6	564.1	671.6	587.1	498.9	460.4	441.3	422.1
82.5°	556.4	284.0	218.7	268.6	426.0	587.1	552.6	429.7	387.6	364.6	341.6
85°	249.4	168.9	145.8	172.7	303.1	456.6	487.3	353.0	303.1	379.9	280.1
87.5°	80.6	76.7	76.7	80.6	145.8	199.6	356.9	261.0	241.7	199.6	168.9
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)