

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: P231033

Luminaire Tested: **ARCH-M-AF48-140-D-U-T2R**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231033
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-AF48-140-D-U-T2R
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 905mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17490.4 lumens
Efficiency: N/A
Efficacy: 124.0 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): 141
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

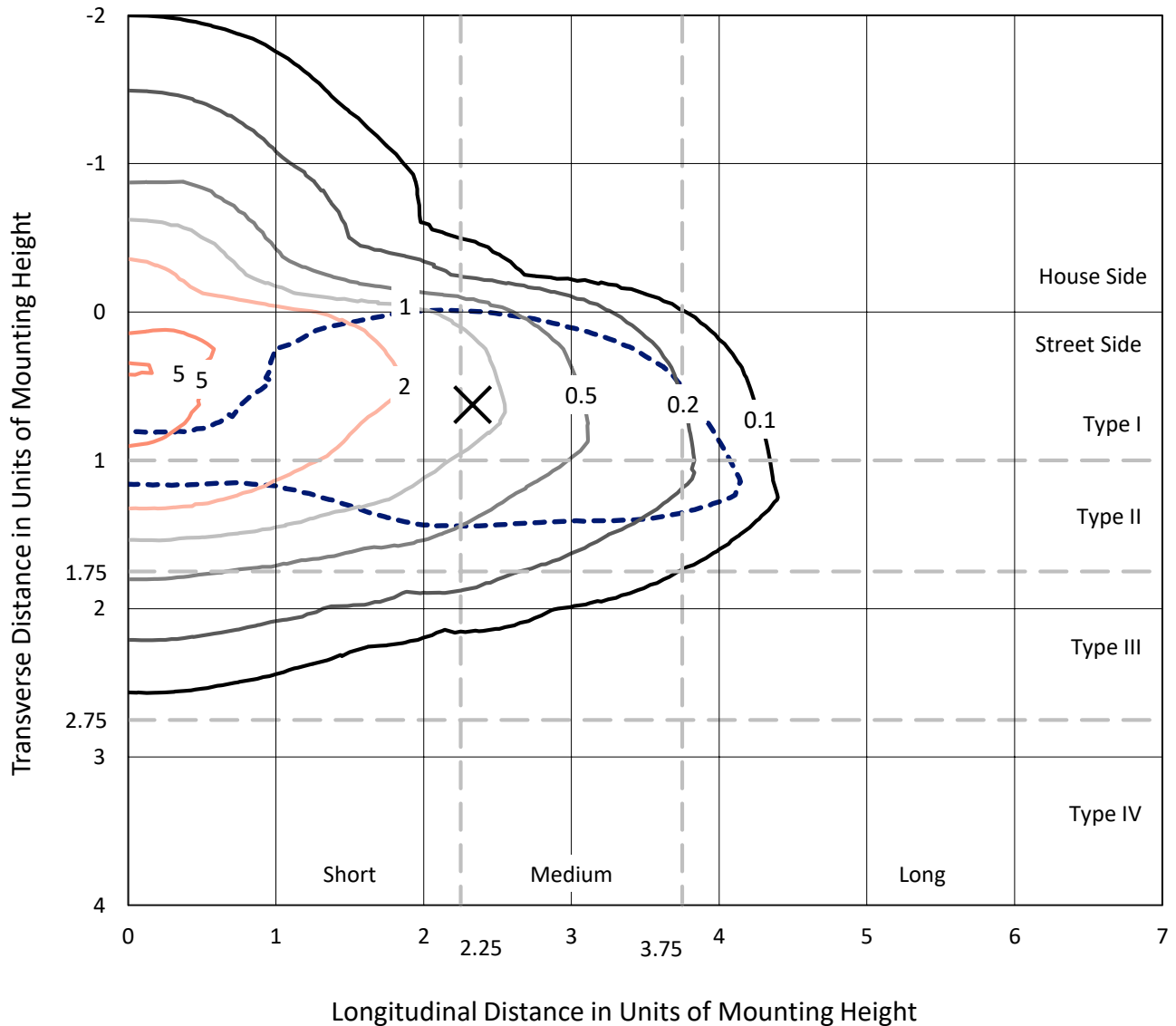


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Iso-Footcandle Lines of Horizontal Illumination

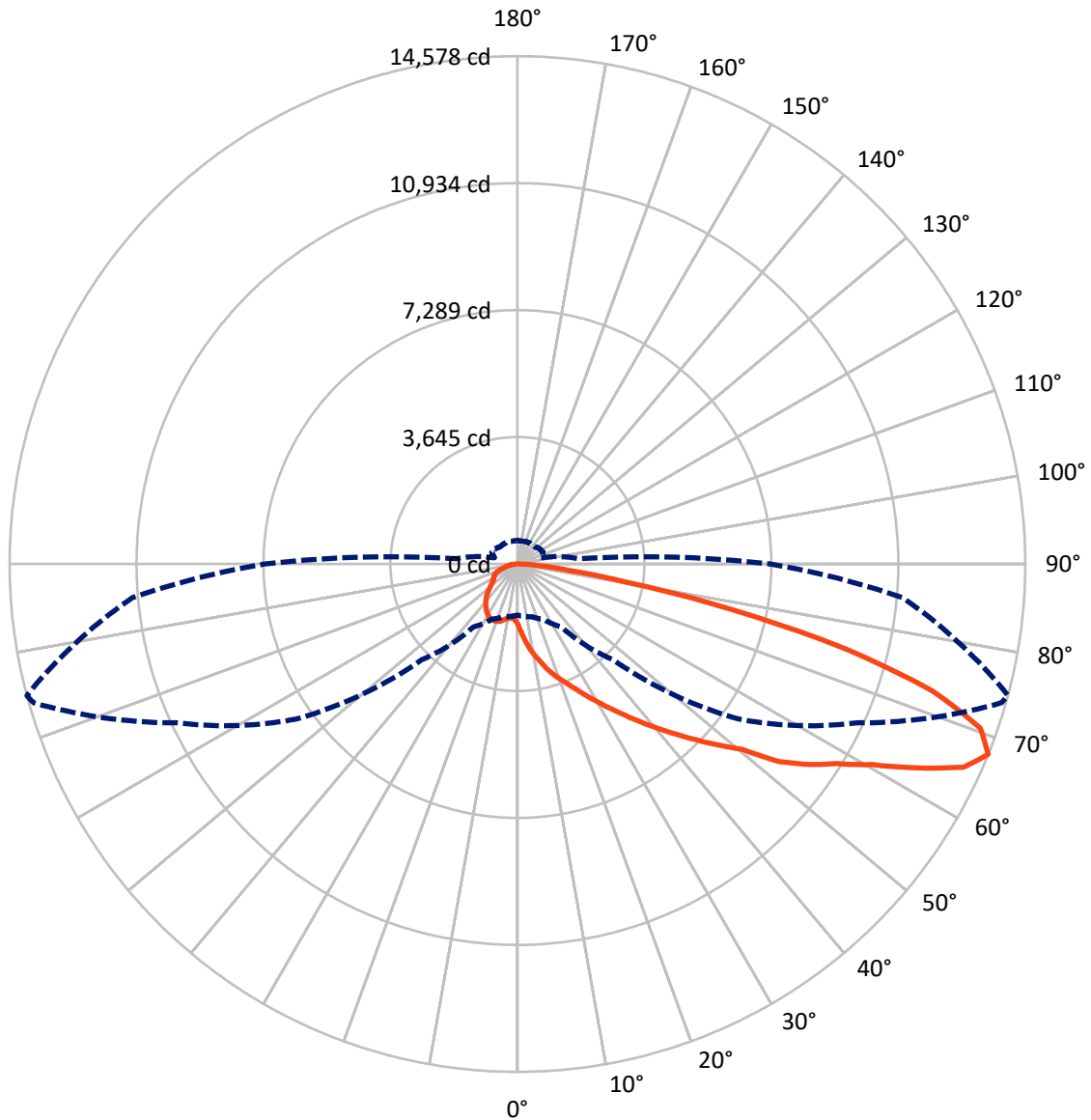
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.8 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	2986.7	0.0	2986.7
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	14503.7	0.0	14503.7
	% Fixture	82.9	0.0	82.9
Total	Lumens	17490.4	0.0	17490.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.6	1.2
10°-20°	735.8	4.2
20°-30°	1342.1	7.7
30°-40°	2202.9	12.6
40°-50°	3185.6	18.2
50°-60°	3754.3	21.5
60°-70°	3648.3	20.9
70°-80°	2027.9	11.6
80°-90°	389.9	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°	17490.4	100.0
0°-180°	17490.4	100.0

Coefficient of Utilization



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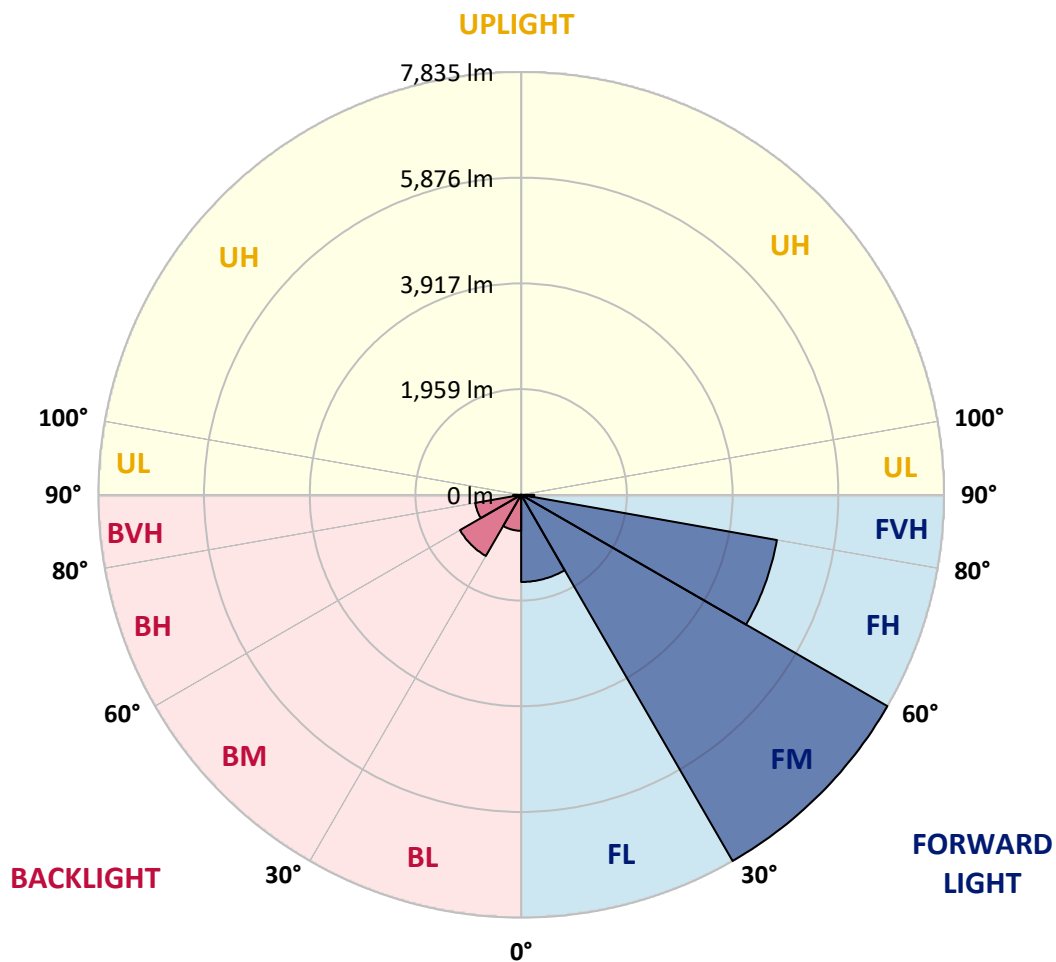
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1614.8	9.2			
FM (30°-60°)	7834.8	44.8			
FH (60°-80°)	4811.4	27.5			G2/5000
FVH (80°-90°)	242.7	1.4			G3/500
BL (0°-30°)	666.6	3.8	B2/1000		
BM (30°-60°)	1308.0	7.5	B2/2500		
BH (60°-80°)	864.8	4.9	B2/1000		G2/1000
BVH (80°-90°)	147.3	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°	1733.1	1733.1	1733.1	1733.1	1733.1	1733.1	1733.1	1733.1	1733.1	1733.1	1733.1
2.5°	2457.1	2464.4	2449.8	2416.8	2369.4	2281.6	2204.8	2069.5	1948.8	1934.2	1806.2
5°	2888.5	2895.9	2877.6	2837.4	2786.2	2691.1	2585.1	2409.6	2215.8	2179.2	1908.6
7.5°	3184.8	3188.3	3166.4	3126.2	3086.0	2990.9	2884.9	2687.5	2449.8	2420.5	2040.3
10°	3437.0	3444.3	3415.0	3389.4	3345.6	3250.5	3140.9	2932.4	2687.5	2647.2	2175.5
12.5°	3671.1	3678.3	3660.0	3638.1	3623.5	3535.7	3415.0	3166.4	2903.1	2859.2	2336.4
15°	3828.2	3835.6	3839.2	3868.5	3886.7	3824.6	3703.9	3433.3	3137.2	3097.0	2526.6
17.5°	3784.4	3802.6	3857.4	3963.5	4076.9	4080.6	3981.8	3696.6	3367.6	3323.7	2720.3
20°	3656.4	3671.1	3736.8	3897.7	4120.8	4248.7	4241.5	3963.5	3583.3	3535.7	2899.6
22.5°	3762.4	3780.7	3780.7	3879.4	4098.9	4336.5	4431.5	4226.8	3799.0	3755.2	3078.7
25°	4215.8	4226.8	4150.0	4109.8	4190.2	4409.6	4588.8	4512.0	4062.2	4011.1	3272.4
27.5°	4848.4	4830.1	4735.0	4574.1	4486.4	4544.9	4727.7	4782.6	4365.7	4303.6	3473.5
30°	5477.3	5466.3	5356.6	5140.8	4943.4	4819.1	4881.3	5023.9	4694.8	4621.7	3667.4
32.5°	6066.0	6047.7	5927.0	5674.7	5451.7	5221.3	5100.6	5243.2	5045.8	4961.7	3883.1
35°	6607.1	6559.6	6438.9	6175.7	5945.3	5725.9	5429.7	5451.7	5426.0	5338.4	4120.8
37.5°	7045.9	7009.3	6877.7	6632.7	6387.7	6179.3	5868.5	5689.3	5835.6	5751.5	4395.0
40°	7433.5	7393.2	7257.9	7012.9	6786.3	6588.8	6343.8	5978.2	6296.3	6201.2	4702.1
42.5°	7725.9	7696.7	7587.0	7345.7	7126.3	6947.2	6826.5	6343.8	6775.3	6683.9	5038.5
45°	7883.2	7853.9	7795.4	7601.6	7400.5	7261.6	7272.6	6779.0	7276.2	7199.4	5437.1
47.5°	7689.4	7711.3	7762.6	7725.9	7601.6	7535.8	7671.1	7228.7	7835.6	7762.6	5868.5
50°	7170.2	7192.2	7396.9	7649.2	7693.0	7773.5	8029.4	7747.9	8428.0	8369.5	6402.3
52.5°	5894.1	6014.7	6581.5	7184.8	7598.0	7930.7	8428.0	8519.3	9426.2	9426.2	7345.7
55°	4453.5	4559.5	5206.7	6259.7	7228.7	7945.4	8720.5	9042.3	10146.4	10161.1	7839.3
57.5°	3608.9	3674.6	3992.8	5071.4	6453.5	7762.6	9067.8	9492.0	10746.1	10812.0	8475.6
60°	2928.8	2965.3	3173.7	3923.3	5382.3	7268.9	9316.5	10135.5	11601.7	11693.1	9287.3
62.5°	2354.7	2391.2	2530.3	2980.0	4223.2	6343.8	9272.6	10804.6	12742.5	12892.5	10351.2
65°	1879.4	1919.6	2011.0	2288.9	3129.8	5195.8	8822.8	11148.3	13923.5	14069.8	11056.9
67.5°	1466.2	1502.8	1564.9	1747.7	2204.8	3886.7	7758.9	10786.3	14453.7	14578.1	11093.5
70°	1107.9	1126.2	1177.3	1294.3	1575.9	2581.4	6073.3	9572.5	13978.4	14091.8	10362.2
72.5°	859.3	855.6	884.9	943.4	1100.6	1777.0	4025.7	7784.5	12358.6	12475.6	8841.2
75°	702.1	698.4	716.7	734.9	797.1	1191.9	2376.6	5861.2	9974.6	9751.6	6632.7
77.5°	592.3	588.7	606.9	610.6	636.2	822.7	1352.9	3857.4	6654.6	6270.7	3736.8
80°	500.9	497.3	519.2	526.5	544.8	603.3	778.8	2087.8	3342.0	3166.4	1784.3
82.5°	376.7	391.3	431.5	449.7	471.7	446.1	482.6	921.4	1550.3	1480.8	775.2
85°	182.8	215.7	325.4	362.0	387.6	281.5	329.1	435.1	698.4	665.4	314.5
87.5°	62.2	54.8	193.7	230.4	252.3	128.0	182.8	241.3	288.9	263.3	98.7
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°	1733.1	1733.1	1733.1	1733.1	1733.1	1733.1	1733.1	1733.1	1733.1	1733.1	1733.1
2.5°	1751.4	1696.6	1616.2	1554.0	1513.8	1480.8	1466.2	1462.5	1455.2	1451.6	1451.6
5°	1788.0	1689.3	1564.9	1499.1	1480.8	1466.2	1473.6	1477.1	1477.1	1477.1	1477.1
7.5°	1842.8	1703.8	1554.0	1510.1	1506.4	1506.4	1528.4	1539.3	1546.7	1546.7	1546.7
10°	1916.0	1729.5	1572.3	1535.7	1546.7	1554.0	1579.5	1594.2	1601.5	1605.1	1608.8
12.5°	2014.7	1784.3	1608.8	1579.5	1594.2	1597.8	1616.2	1623.4	1630.8	1634.4	1634.4
15°	2146.3	1864.7	1667.3	1630.8	1634.4	1630.8	1630.8	1623.4	1619.7	1619.7	1627.1
17.5°	2281.6	1941.6	1718.5	1667.3	1652.7	1623.4	1601.5	1583.2	1572.3	1564.9	1568.6
20°	2416.8	2011.0	1747.7	1674.7	1634.4	1586.9	1546.7	1521.0	1506.4	1491.8	1499.1
22.5°	2552.2	2076.8	1758.8	1652.7	1594.2	1524.7	1480.8	1440.6	1407.7	1385.8	1389.5
25°	2702.0	2149.9	1758.8	1627.1	1539.3	1466.2	1411.4	1345.6	1298.0	1279.7	1287.1
27.5°	2852.0	2212.1	1740.4	1579.5	1477.1	1404.1	1323.6	1246.9	1217.6	1206.6	1210.3
30°	3001.8	2259.7	1700.2	1521.0	1411.4	1331.0	1224.9	1173.7	1137.1	1107.9	1111.5
32.5°	3151.8	2292.5	1645.4	1447.9	1341.9	1239.5	1151.7	1093.2	1027.5	990.9	994.5
35°	3323.7	2318.1	1579.5	1374.8	1265.1	1159.1	1093.2	998.2	928.7	899.5	892.1
37.5°	3502.8	2336.4	1510.1	1294.3	1188.4	1100.6	1034.7	917.8	851.9	811.7	808.0
40°	3696.6	2343.8	1426.0	1210.3	1115.2	1064.0	958.0	870.2	756.9	731.3	731.3
42.5°	3927.0	2340.1	1341.9	1126.2	1034.7	979.9	903.2	862.9	764.1	738.6	723.9
45°	4190.2	2340.1	1250.5	1027.5	954.3	873.9	841.0	815.4	749.5	760.6	767.8
47.5°	4490.0	2332.7	1140.8	947.0	888.5	819.1	800.8	745.9	720.3	727.6	734.9
50°	4903.2	2343.8	1042.1	881.2	841.0	782.5	760.6	731.3	720.3	723.9	720.3
52.5°	5477.3	2307.2	947.0	841.0	804.4	727.6	727.6	723.9	727.6	723.9	723.9
55°	5791.7	2226.8	877.5	819.1	778.8	702.1	716.7	723.9	731.3	727.6	727.6
57.5°	6237.7	2171.9	822.7	804.4	764.1	694.7	709.3	723.9	727.6	723.9	723.9
60°	6764.4	2135.3	786.1	808.0	753.2	694.7	713.0	723.9	720.3	716.7	716.7
62.5°	7375.0	2120.7	760.6	819.1	742.3	698.4	713.0	723.9	709.3	705.7	705.7
65°	7605.3	1989.0	727.6	826.3	749.5	698.4	709.3	713.0	694.7	691.1	687.4
67.5°	7250.6	1762.3	680.1	811.7	771.5	698.4	698.4	694.7	672.8	669.1	661.8
70°	6457.2	1462.5	606.9	764.1	786.1	702.1	683.7	665.4	643.5	643.5	628.9
72.5°	5287.1	1151.7	511.9	680.1	775.2	713.0	654.5	628.9	603.3	603.3	588.7
75°	3810.0	859.3	409.5	566.7	727.6	709.3	618.0	585.0	555.8	552.1	533.9
77.5°	2171.9	603.3	332.8	442.4	647.2	691.1	585.0	533.9	500.9	490.0	478.9
80°	1115.2	405.9	270.6	347.4	537.5	639.9	559.5	475.4	438.7	420.5	402.2
82.5°	530.2	270.6	208.4	255.9	405.9	559.5	526.5	409.5	369.3	347.4	325.4
85°	237.6	160.9	138.9	164.5	288.9	435.1	464.3	336.3	288.9	362.0	266.9
87.5°	76.8	73.1	73.1	76.8	138.9	190.2	340.0	248.7	230.4	190.2	160.9
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)