

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: P231291

Luminaire Tested: **ARCH-M-AF48-120-D-U-T4W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231291
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29615)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-120-D-U-T4W
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 785mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15556 lumens
Efficiency: N/A
Efficacy: 127.5 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B3 - U0 - G3

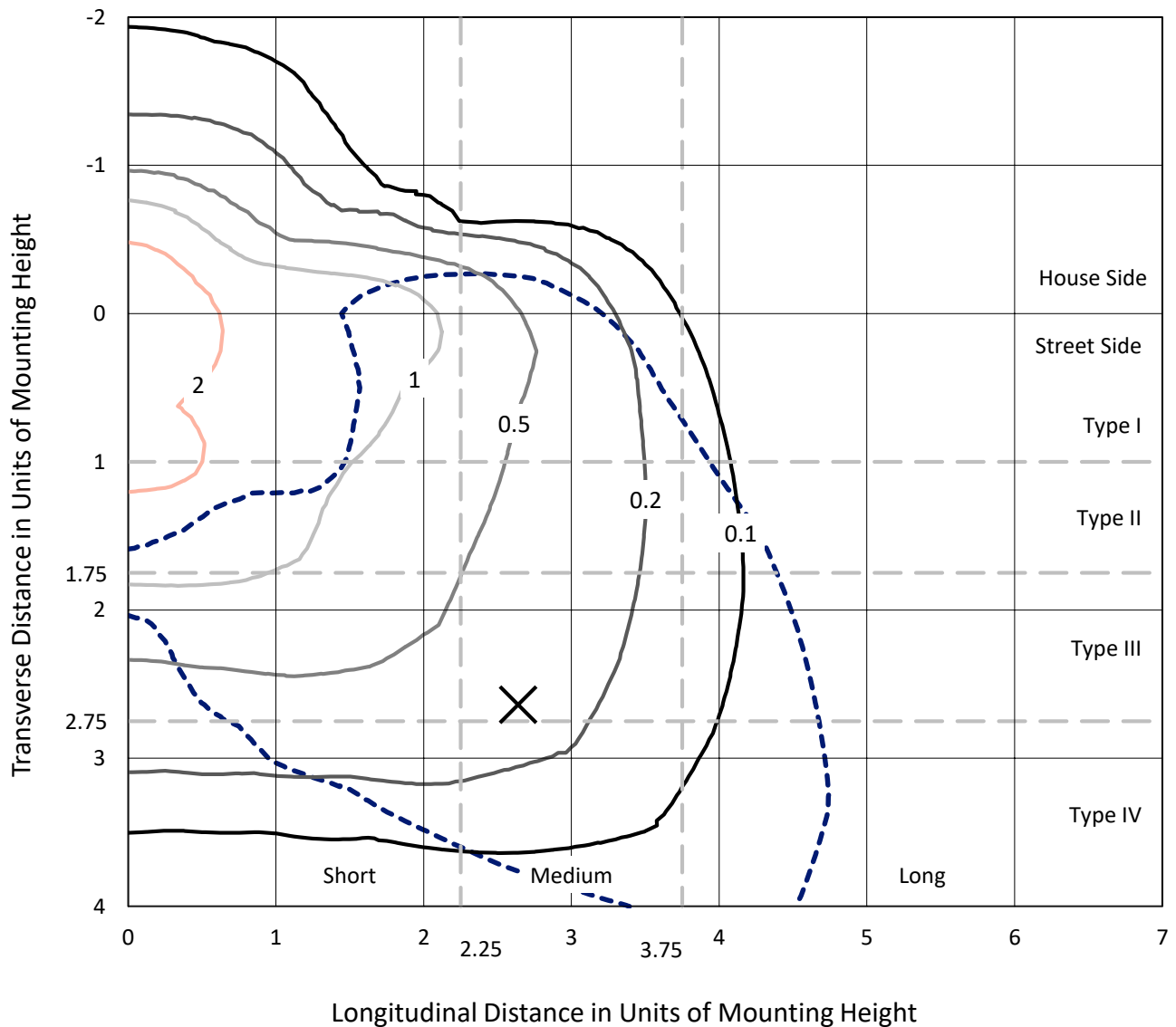
Input Watts (W): 122
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

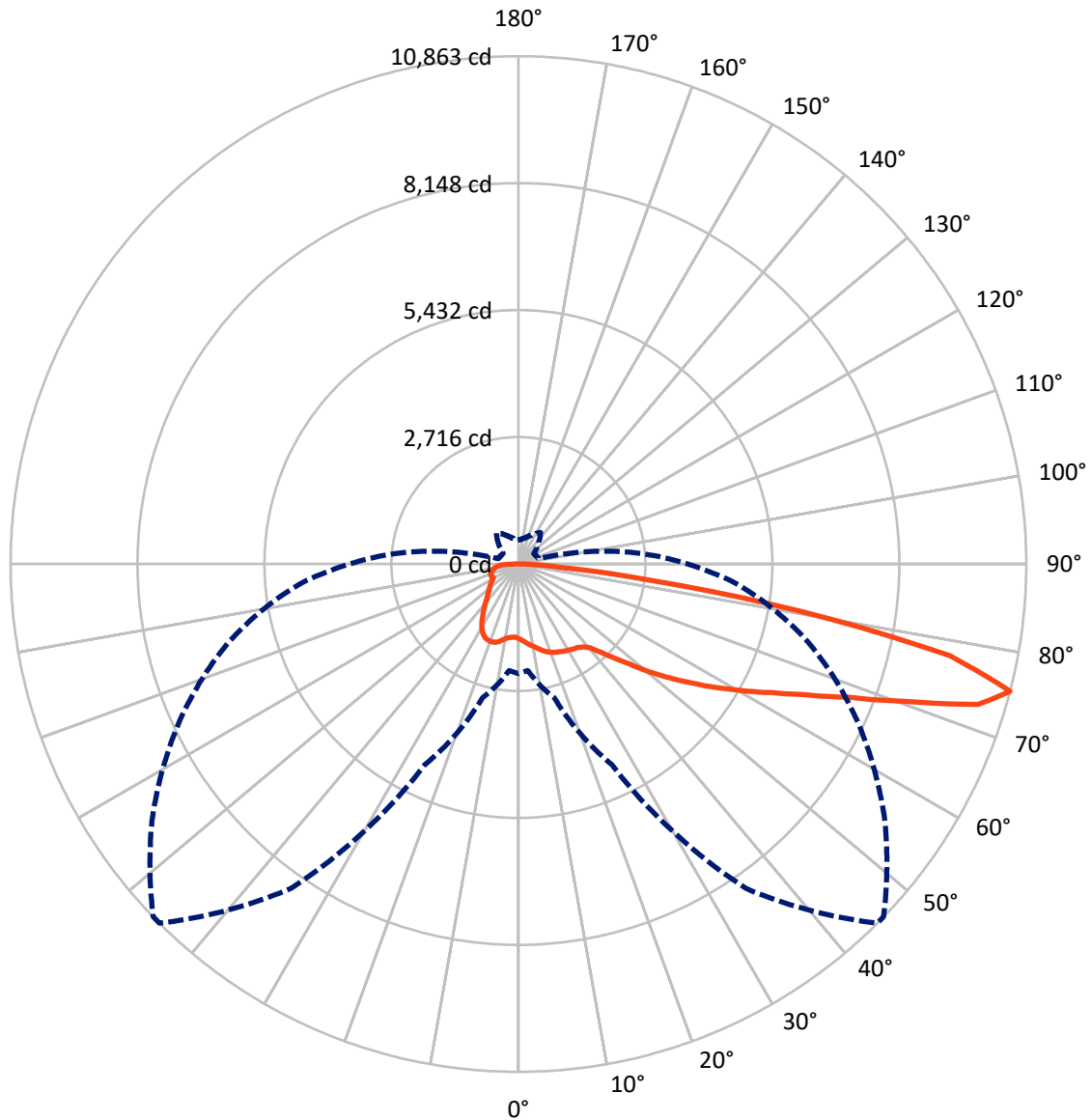
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3603.7	0.0	3603.7
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	11952.3	0.0	11952.3
	% Fixture	76.8	0.0	76.8
Total	Lumens	15556.0	0.0	15556.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.0	1.0
10°-20°	512.1	3.3
20°-30°	878.8	5.6
30°-40°	1229.1	7.9
40°-50°	1803.0	11.6
50°-60°	2808.6	18.1
60°-70°	4041.3	26.0
70°-80°	3520.4	22.6
80°-90°	604.6	3.9
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°	15556.0	100.0
0°-180°	15556.0	100.0



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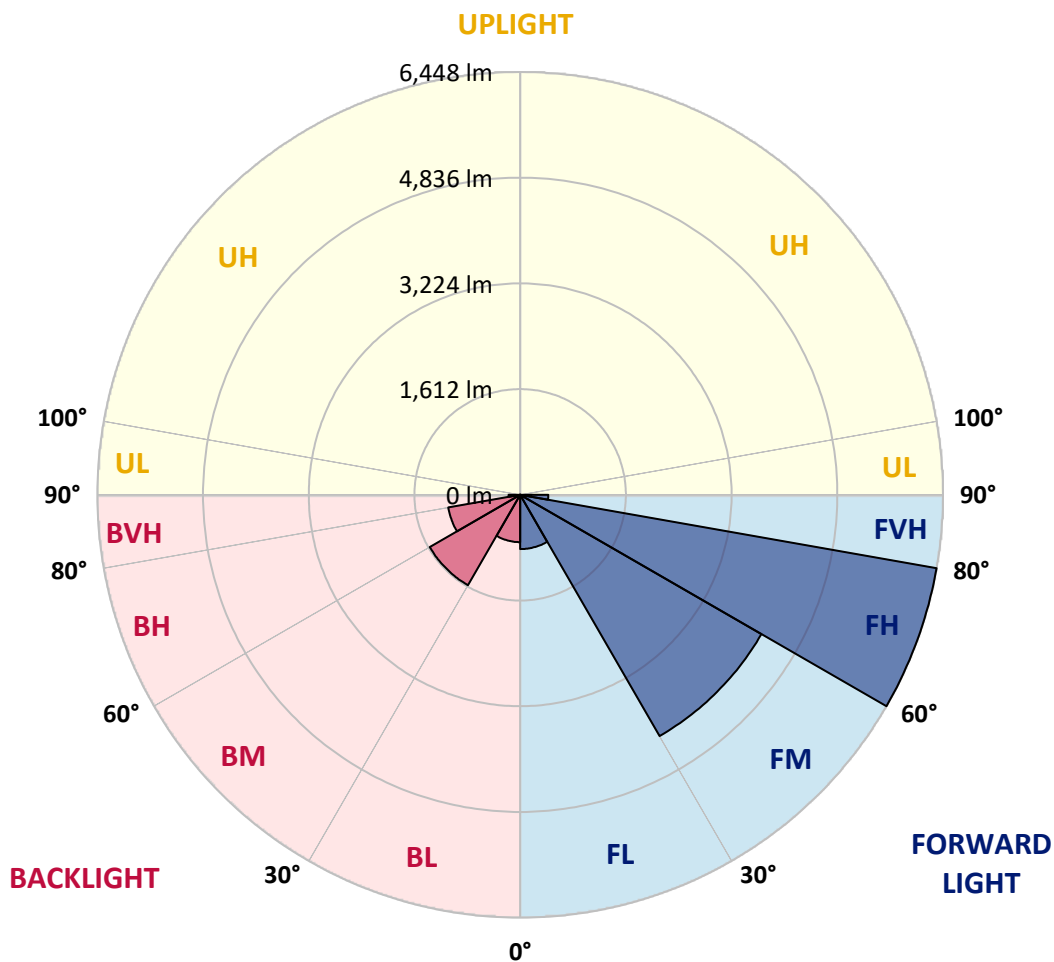
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	827.2	5.3			
FM	(30°-60°)	4248.0	27.3			
FH	(60°-80°)	6448.1	41.5			G3/7500
FVH	(80°-90°)	429.0	2.8			G3/500
BL	(0°-30°)	721.8	4.6	B2/1000		
BM	(30°-60°)	1592.6	10.2	B2/2500		
BH	(60°-80°)	1113.7	7.2	B3/2500		G3/2500
BVH	(80°-90°)	175.6	1.1			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1594.7	1594.7	1594.7	1594.7	1594.7	1594.7	1594.7	1594.7	1594.7	1594.7	1594.7
2.5°	1673.3	1661.3	1661.3	1652.2	1652.2	1637.0	1631.0	1628.0	1612.9	1603.8	1594.7
5°	1770.2	1755.1	1752.1	1730.8	1721.8	1688.5	1685.5	1664.3	1637.0	1609.8	1588.6
7.5°	1858.0	1848.9	1833.7	1812.6	1785.4	1743.0	1739.9	1706.7	1661.3	1625.0	1594.7
10°	1921.5	1915.5	1894.3	1867.1	1836.8	1794.5	1791.4	1755.1	1700.7	1658.3	1615.9
12.5°	1997.2	1988.1	1960.9	1924.6	1891.2	1852.0	1848.9	1818.6	1758.1	1703.6	1649.2
15°	2069.8	2057.7	2024.4	1988.1	1951.8	1918.5	1918.5	1885.2	1821.7	1758.1	1694.6
17.5°	2106.2	2100.0	2066.8	2027.4	1997.2	1973.0	1969.9	1939.7	1876.1	1809.6	1739.9
20°	2118.2	2121.2	2091.0	2048.7	2027.4	2015.3	2012.3	1991.1	1921.5	1858.0	1791.4
22.5°	2115.2	2124.3	2100.0	2054.7	2048.7	2048.7	2048.7	2024.4	1969.9	1906.4	1839.8
25°	2127.3	2139.4	2121.2	2066.8	2066.8	2078.8	2078.8	2066.8	2018.4	1963.9	1897.3
27.5°	2169.7	2178.8	2163.6	2087.9	2091.0	2109.1	2106.2	2109.1	2078.8	2027.4	1960.9
30°	2221.1	2233.2	2215.0	2121.2	2118.2	2136.3	2136.3	2151.5	2130.3	2075.9	2021.4
32.5°	2360.3	2357.3	2299.8	2157.5	2148.5	2166.6	2166.6	2181.7	2169.7	2127.3	2075.9
35°	2774.9	2729.4	2602.4	2275.6	2184.8	2193.8	2193.8	2221.1	2227.2	2193.8	2148.5
37.5°	3198.5	3183.4	3086.5	2590.3	2317.9	2251.3	2248.3	2287.6	2314.9	2287.6	2257.4
40°	3625.1	3613.1	3591.9	3010.9	2596.4	2354.2	2345.1	2378.5	2426.8	2408.7	2390.5
42.5°	4021.6	4015.5	4036.7	3425.5	2950.4	2575.2	2547.9	2508.6	2578.1	2572.1	2572.1
45°	4333.2	4348.4	4360.5	3812.7	3334.7	2859.6	2826.3	2693.1	2786.9	2811.2	2829.3
47.5°	4508.8	4520.8	4563.3	4191.0	3718.9	3189.5	3165.2	2947.3	3071.4	3144.0	3195.5
50°	4759.9	4726.6	4763.0	4560.2	4181.9	3619.1	3552.5	3289.3	3446.6	3573.7	3694.8
52.5°	5002.0	4947.5	4977.8	4986.9	4708.4	4039.7	3970.2	3691.7	3888.4	4088.1	4303.0
55°	5219.9	5216.8	5247.1	5401.5	5216.8	4490.7	4412.0	4136.6	4421.0	4635.9	4999.0
57.5°	5395.3	5425.6	5558.8	5882.6	5803.9	4980.8	4893.1	4654.0	4990.0	5204.8	5806.9
60°	5601.2	5649.6	5870.5	6291.0	6339.5	5495.3	5404.5	5232.0	5574.0	5791.8	6742.0
62.5°	5670.7	5740.4	6194.3	6720.8	6899.3	6058.1	5976.4	5861.4	6188.2	6384.8	7674.0
65°	5207.7	5340.9	6372.8	6941.6	7501.5	6735.9	6666.4	6566.4	6799.5	6929.6	8306.5
67.5°	5080.7	5141.2	6024.8	7259.4	8067.4	7607.4	7537.8	7365.3	7371.4	7317.0	8512.2
70°	4902.2	4968.7	5667.8	7498.4	8878.3	8799.6	8714.9	8206.5	7894.9	7565.0	8106.7
72.5°	4175.9	4154.7	4884.0	6854.0	9268.7	10276.4	10176.5	9111.3	8282.2	7350.2	6841.8
75°	2345.1	2284.7	2962.5	4741.8	8463.8	10863.4	10860.4	9568.3	8009.9	6403.1	4657.1
77.5°	680.9	662.7	977.4	1988.1	5698.0	9438.2	9553.1	8630.2	6684.5	4599.6	2557.0
80°	320.8	326.8	420.6	656.6	2432.9	6091.4	6421.2	5682.9	3994.3	2121.2	1056.1
82.5°	202.7	205.8	287.4	423.6	1028.9	2765.8	3038.2	2557.0	1582.6	916.9	466.1
85°	127.1	127.1	190.7	278.3	614.3	883.6	959.2	871.5	677.8	499.3	254.2
87.5°	69.6	69.6	115.0	160.4	335.9	284.5	293.5	348.0	423.6	305.7	127.1
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°	1594.7	1594.7	1594.7	1594.7	1594.7	1594.7	1594.7	1594.7	1594.7	1594.7	1594.7
2.5°	1591.7	1585.7	1576.6	1573.5	1570.5	1567.5	1570.5	1576.6	1570.5	1570.5	1573.5
5°	1582.6	1576.6	1564.5	1564.5	1567.5	1570.5	1585.7	1594.7	1597.7	1597.7	1597.7
7.5°	1582.6	1573.5	1564.5	1567.5	1573.5	1585.7	1609.8	1625.0	1637.0	1640.1	1640.1
10°	1597.7	1585.7	1579.5	1585.7	1603.8	1612.9	1637.0	1661.3	1676.4	1682.4	1682.4
12.5°	1625.0	1612.9	1612.9	1625.0	1649.2	1661.3	1682.4	1700.7	1718.8	1727.9	1727.9
15°	1670.4	1655.2	1658.3	1679.5	1706.7	1718.8	1733.9	1739.9	1755.1	1767.1	1767.1
17.5°	1712.7	1697.6	1703.6	1727.9	1746.0	1752.1	1761.1	1758.1	1764.2	1773.3	1776.3
20°	1761.1	1746.0	1749.0	1764.2	1767.1	1761.1	1761.1	1752.1	1749.0	1764.2	1770.2
22.5°	1809.6	1794.5	1791.4	1782.3	1767.1	1752.1	1743.0	1733.9	1727.9	1743.0	1749.0
25°	1867.1	1845.9	1830.8	1791.4	1752.1	1724.8	1712.7	1706.7	1703.6	1718.8	1724.8
27.5°	1930.6	1909.4	1864.0	1779.3	1715.8	1670.4	1661.3	1661.3	1667.3	1676.4	1682.4
30°	1991.1	1969.9	1888.3	1752.1	1652.2	1585.7	1576.6	1585.7	1600.7	1609.8	1618.9
32.5°	2051.6	2030.5	1903.4	1709.7	1558.4	1473.7	1467.6	1482.8	1506.9	1513.0	1519.1
35°	2133.4	2112.2	1921.5	1649.2	1440.4	1349.6	1343.5	1352.6	1373.8	1382.9	1391.9
37.5°	2248.3	2236.3	1948.7	1582.6	1331.5	1231.6	1213.4	1207.4	1219.5	1216.5	1228.6
40°	2399.6	2408.7	1997.2	1494.8	1225.5	1122.7	1083.3	1065.2	1053.0	1028.9	1041.0
42.5°	2620.5	2626.6	2051.6	1395.0	1134.8	1019.8	968.3	935.1	910.8	871.5	877.6
45°	2944.4	2892.9	2115.2	1289.1	1053.0	938.0	877.6	838.2	805.0	771.6	774.7
47.5°	3374.0	3216.7	2184.8	1201.4	971.4	871.5	817.0	771.6	732.3	705.0	708.1
50°	3903.6	3619.1	2254.4	1119.6	889.7	820.1	771.6	723.2	683.8	656.6	653.7
52.5°	4602.6	4103.3	2299.8	1028.9	807.9	774.7	732.3	686.9	638.5	605.2	602.2
55°	5328.9	4666.1	2339.1	919.9	729.3	723.2	702.1	650.6	593.1	550.8	544.7
57.5°	6127.7	5268.3	2369.4	814.0	668.7	680.9	674.8	614.3	550.8	511.4	508.4
60°	6854.0	5891.7	2272.6	720.2	614.3	638.5	644.6	593.1	559.9	568.9	571.9
62.5°	7586.2	6372.8	1903.4	650.6	578.0	611.2	662.7	659.7	644.6	659.7	662.7
65°	7849.5	6472.6	1349.6	593.1	541.7	623.4	720.2	714.1	644.6	617.4	611.2
67.5°	7701.2	6176.1	907.8	547.7	514.4	638.5	780.7	714.1	620.3	584.0	571.9
70°	6996.2	5446.8	665.7	502.3	490.2	635.5	814.0	711.2	608.2	568.9	553.7
72.5°	5580.0	4203.1	535.6	459.9	453.9	620.3	832.2	705.0	596.2	553.7	535.6
75°	3613.1	2614.5	450.9	417.6	399.5	596.2	823.1	686.9	581.0	526.5	514.4
77.5°	1676.4	1125.7	384.3	369.2	348.0	559.9	795.9	650.6	547.7	496.2	481.1
80°	780.7	532.5	323.8	320.8	311.7	529.6	759.5	608.2	508.4	466.1	441.8
82.5°	417.6	320.8	263.3	263.3	272.3	493.3	714.1	556.8	457.0	435.8	372.1
85°	220.9	184.5	190.7	205.8	233.0	435.8	653.7	502.3	399.5	332.9	323.8
87.5°	112.0	118.0	118.0	139.2	178.5	354.0	538.6	414.6	338.9	272.3	266.3
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)