

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: P231346

Luminaire Tested: **ARCH-M-AF48-150-D-U-T4W-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231346  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)  
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-T4W-7030-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 970mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11722 lumens  
Efficiency: N/A  
Efficacy: 77.6 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B1 - 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

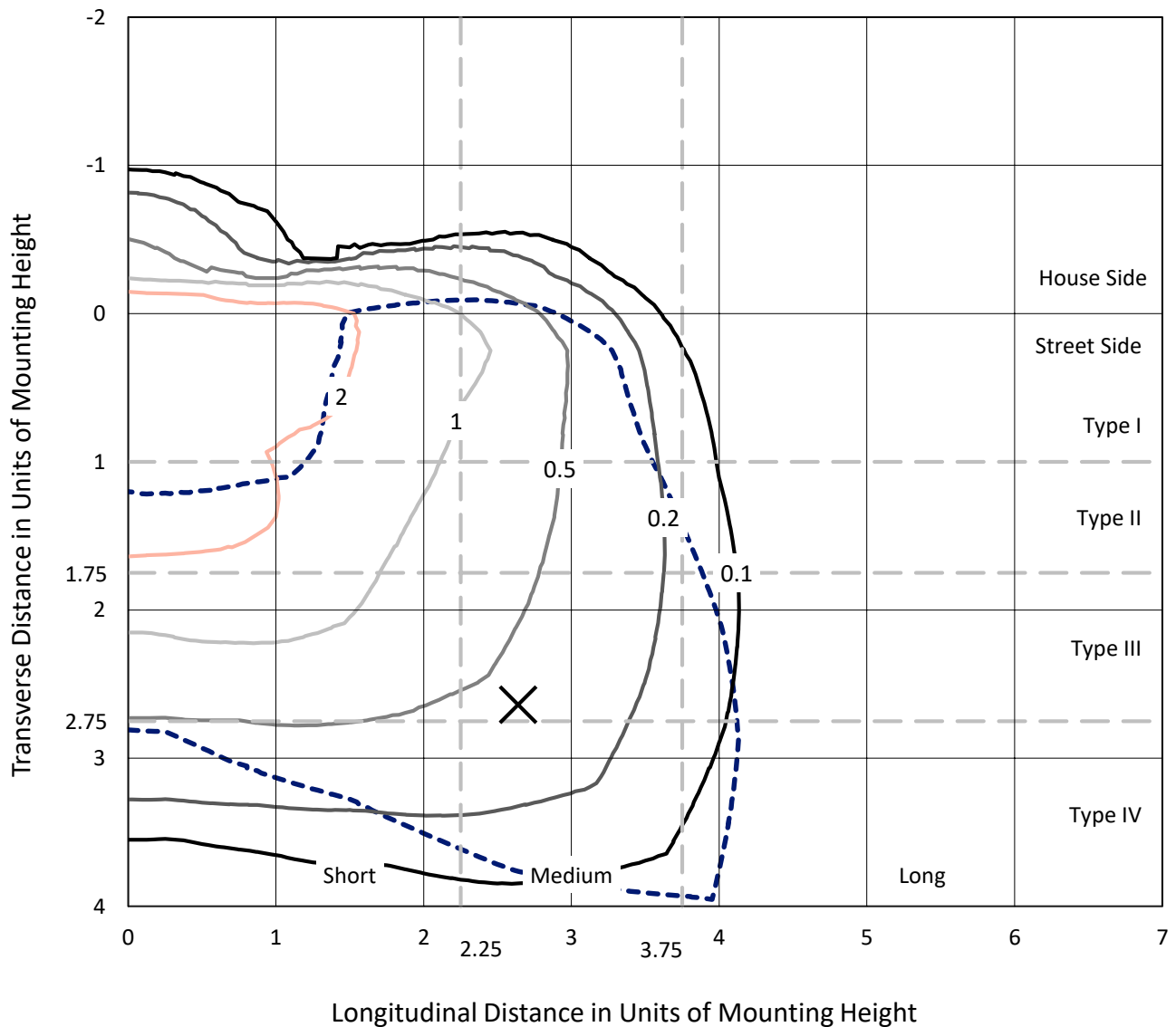


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

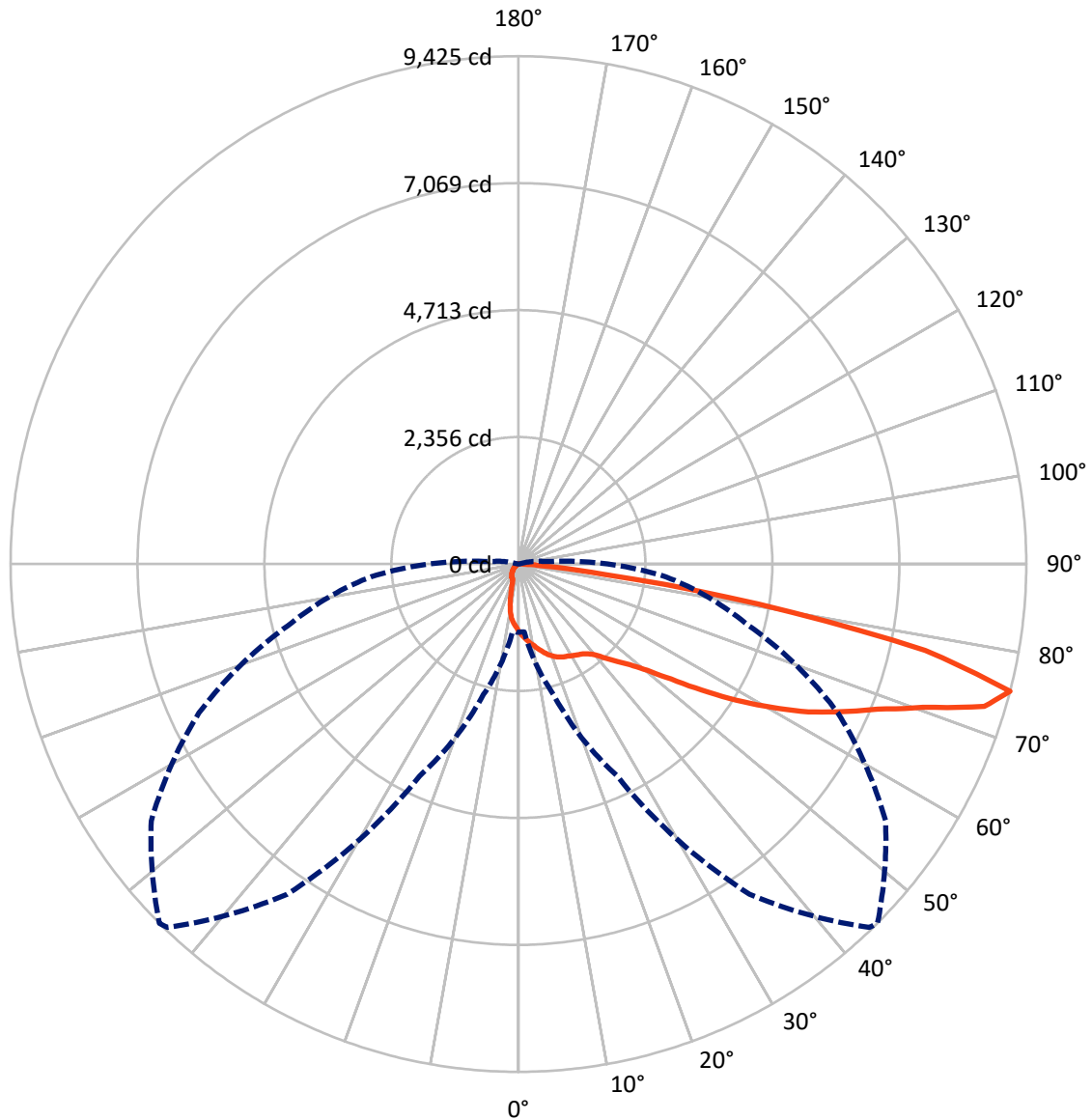


Based on 20 foot mounting height. Maximum calculated value = 4.2 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



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



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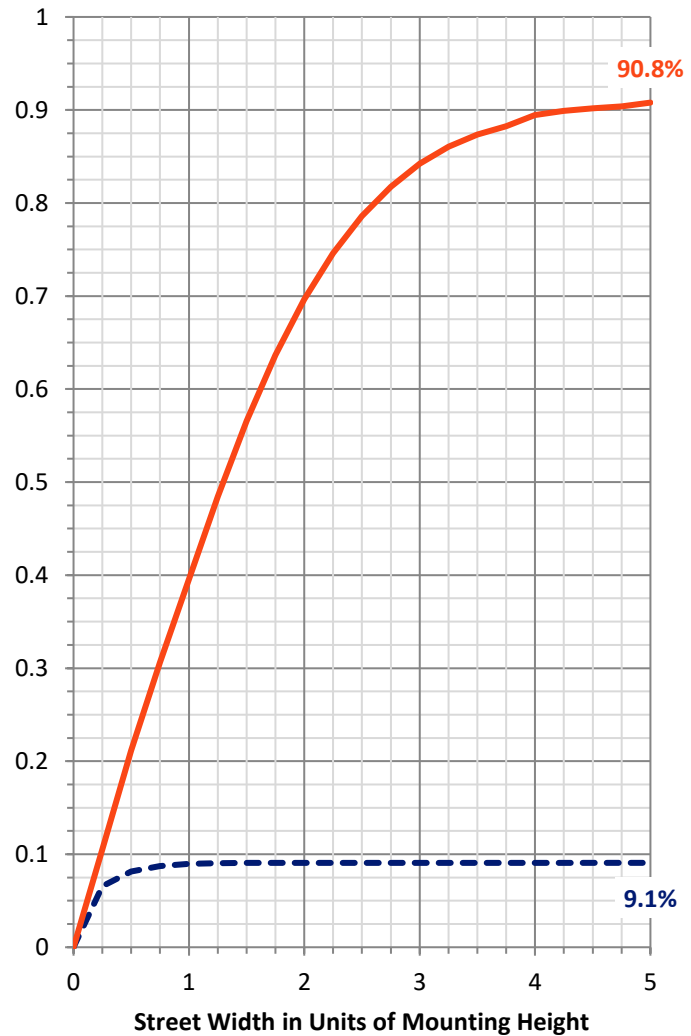
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1072.2	0.0	1072.2
	% Fixture	9.1	0.0	9.1
<b>Street Side</b>	Lumens	10649.8	0.0	10649.8
	% Fixture	90.9	0.0	90.9
<b>Total</b>	Lumens	11722.0	0.0	11722.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	118.3	1.0
10°-20°	335.2	2.9
20°-30°	555.2	4.7
30°-40°	803.5	6.9
40°-50°	1315.6	11.2
50°-60°	2344.2	20.0
60°-70°	3446.2	29.4
70°-80°	2599.9	22.2
80°-90°	204.0	1.7
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°	11722.0	100.0
0°-180°	11722.0	100.0



--- HS    — SS

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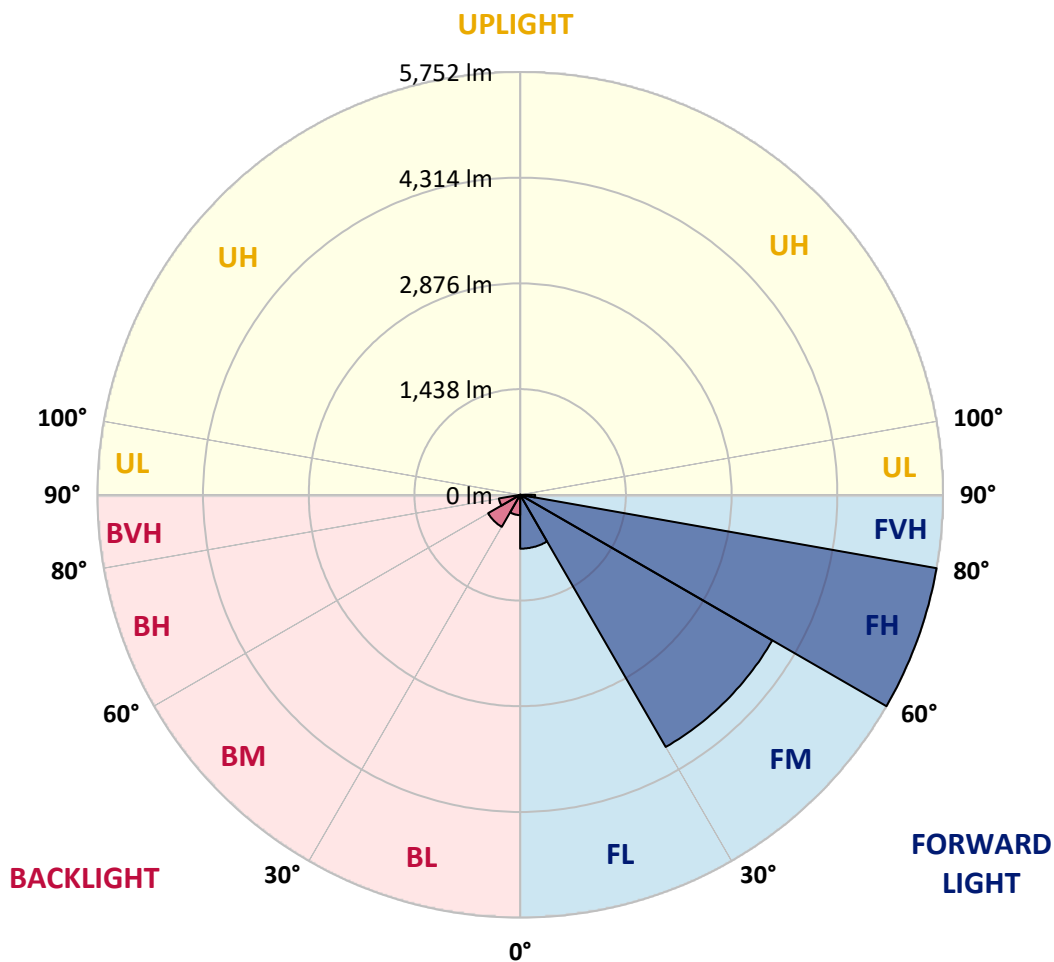
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	733.2	6.3			
FM	(30°-60°)	3960.8	33.8			
FH	(60°-80°)	5752.4	49.1			G3/7500
FVH	(80°-90°)	203.4	1.7			G2/225
BL	(0°-30°)	275.5	2.4	B1/500		
BM	(30°-60°)	502.4	4.3	B1/1000		
BH	(60°-80°)	293.7	2.5	B1/500		G1/500
BVH	(80°-90°)	0.6	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G3**

Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	1253.7	1253.7	1253.7	1253.7	1253.7	1253.7	1253.7	1253.7	1253.7	1253.7	1253.7
2.5°	1361.9	1361.9	1359.1	1356.4	1342.5	1328.6	1325.8	1317.5	1292.6	1275.9	1259.3
5°	1475.6	1478.4	1472.9	1459.0	1428.5	1398.0	1395.2	1373.0	1325.8	1292.6	1256.5
7.5°	1583.8	1589.4	1575.5	1550.5	1514.5	1470.1	1467.3	1425.7	1364.7	1317.5	1264.8
10°	1675.3	1675.3	1655.9	1625.4	1586.6	1539.4	1533.9	1486.7	1417.4	1359.1	1289.8
12.5°	1775.2	1772.4	1744.7	1703.1	1658.7	1614.3	1611.5	1553.3	1486.7	1411.8	1325.8
15°	1866.7	1861.2	1825.1	1786.3	1739.1	1692.0	1689.2	1631.0	1561.6	1472.9	1378.5
17.5°	1916.7	1913.9	1880.6	1841.8	1802.9	1766.9	1764.1	1703.1	1628.2	1536.7	1431.3
20°	1925.0	1927.8	1900.0	1866.7	1844.5	1825.1	1825.1	1769.6	1689.2	1592.1	1486.7
22.5°	1927.8	1936.1	1916.7	1872.3	1866.7	1869.5	1875.0	1830.7	1747.5	1655.9	1545.0
25°	1947.2	1958.3	1944.4	1891.7	1886.1	1905.6	1911.1	1891.7	1816.8	1725.3	1611.5
27.5°	1986.0	1997.1	1986.0	1919.4	1911.1	1930.5	1936.1	1947.2	1891.7	1791.8	1680.9
30°	2063.7	2066.4	2041.5	1958.3	1941.6	1966.6	1974.9	2005.4	1961.0	1855.6	1747.5
32.5°	2199.6	2171.8	2096.9	1986.0	1972.1	1999.9	2008.2	2041.5	2024.8	1916.7	1816.8
35°	2477.0	2332.7	2160.7	2024.8	2011.0	2038.7	2049.8	2096.9	2105.3	2002.6	1902.8
37.5°	2474.2	2343.8	2310.5	2099.7	2080.3	2099.7	2113.6	2171.8	2205.1	2116.4	2027.6
40°	2648.9	2593.4	2593.4	2241.2	2177.4	2205.1	2219.0	2277.2	2335.5	2266.1	2174.6
42.5°	3198.1	3162.1	3123.2	2513.0	2313.3	2391.0	2399.3	2435.3	2504.7	2482.5	2374.3
45°	3811.1	3777.8	3628.1	2973.5	2546.3	2560.2	2579.6	2637.8	2737.7	2779.3	2651.7
47.5°	4291.0	4257.7	4130.1	3528.2	2909.7	2787.6	2787.6	2901.3	3056.7	3162.1	3040.0
50°	4676.5	4637.7	4560.0	4119.0	3506.0	3114.9	3098.3	3231.4	3461.6	3625.3	3542.1
52.5°	5051.0	4937.3	4890.1	4729.2	4180.0	3589.2	3544.8	3639.1	3958.1	4160.6	4091.3
55°	5300.6	5284.0	5234.1	5289.5	4887.3	4166.2	4127.3	4146.7	4546.2	4682.1	4596.1
57.5°	5533.6	5530.8	5641.8	5899.7	5658.4	4826.3	4765.3	4734.8	5114.8	5081.5	5156.4
60°	5822.1	5772.2	6030.1	6399.0	6365.7	5469.8	5400.5	5339.5	5550.3	5456.0	5827.6
62.5°	5836.0	5822.1	6346.3	6876.1	7067.5	6124.4	6044.0	5824.9	5930.3	5822.1	6468.4
65°	5306.2	5375.5	6479.5	7128.5	7655.5	6698.6	6601.5	6260.3	6268.7	6196.5	7222.8
67.5°	5186.9	5223.0	6113.3	7400.3	8079.9	7278.3	7186.8	6762.4	6662.5	6668.1	7669.4
70°	4890.1	4945.6	5658.4	7380.9	8415.5	8052.2	7960.6	7500.2	7258.9	6989.8	7325.5
72.5°	3736.2	3830.5	4768.1	6471.1	8324.0	9064.6	9039.6	8434.9	7497.4	6418.4	5541.9
75°	1264.8	1262.1	2504.7	4346.5	7478.0	9375.2	9425.2	8318.5	6540.5	4426.9	2751.6
77.5°	271.8	274.6	515.9	1761.3	4967.8	7527.9	7719.3	6274.2	4218.9	1972.1	629.6
80°	133.1	135.9	213.6	466.0	1986.0	4221.6	4521.2	3225.9	1558.8	393.9	105.4
82.5°	66.6	69.3	110.9	246.9	735.0	1500.6	1603.2	1187.2	446.6	221.9	52.7
85°	25.0	25.0	55.5	147.0	335.6	352.3	432.7	343.9	269.1	180.3	13.9
87.5°	5.5	5.5	30.5	72.1	149.8	110.9	110.9	105.4	163.7	122.0	5.5
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°	1253.7	1253.7	1253.7	1253.7	1253.7	1253.7	1253.7	1253.7	1253.7	1253.7	1253.7
2.5°	1251.0	1239.9	1220.4	1201.0	1187.2	1170.5	1162.2	1153.9	1151.1	1148.3	1153.9
5°	1237.1	1220.4	1184.4	1153.9	1126.1	1103.9	1087.3	1070.7	1062.3	1056.8	1059.6
7.5°	1237.1	1212.1	1159.4	1112.3	1067.9	1020.7	973.6	937.5	909.8	893.1	895.9
10°	1251.0	1217.7	1148.3	1084.5	1001.3	901.5	798.8	721.2	668.5	638.0	638.0
12.5°	1281.5	1237.1	1151.1	1051.2	909.8	735.0	579.7	485.4	446.6	424.4	427.2
15°	1323.1	1270.4	1165.0	1006.9	782.2	546.4	405.0	343.9	343.9	349.5	352.3
17.5°	1370.2	1312.0	1176.1	940.3	618.5	391.1	319.0	313.4	321.8	335.6	335.6
20°	1417.4	1353.6	1181.6	834.9	463.2	310.7	302.3	302.3	307.9	321.8	324.5
22.5°	1475.6	1406.3	1176.1	704.5	346.7	294.0	291.2	291.2	291.2	307.9	307.9
25°	1536.7	1467.3	1153.9	565.8	294.0	282.9	280.1	277.4	277.4	291.2	294.0
27.5°	1606.0	1531.1	1101.2	432.7	277.4	271.8	269.1	263.5	263.5	274.6	274.6
30°	1675.3	1603.2	1020.7	327.3	263.5	260.7	255.2	249.6	244.1	255.2	255.2
32.5°	1750.2	1678.1	915.3	260.7	244.1	244.1	241.3	233.0	227.4	233.0	235.8
35°	1850.1	1764.1	796.1	227.4	219.1	219.1	219.1	216.4	205.3	210.8	210.8
37.5°	1983.2	1883.4	657.4	210.8	199.7	194.2	194.2	194.2	185.8	188.6	188.6
40°	2152.4	2022.1	524.2	196.9	185.8	172.0	166.4	169.2	163.7	163.7	160.9
42.5°	2382.6	2171.8	393.9	185.8	174.7	155.3	144.2	141.5	135.9	133.1	133.1
45°	2712.7	2354.9	282.9	174.7	166.4	135.9	124.8	116.5	102.6	94.3	94.3
47.5°	3139.9	2562.9	210.8	163.7	158.1	119.3	105.4	88.8	69.3	63.8	63.8
50°	3661.3	2795.9	177.5	147.0	144.2	105.4	83.2	58.2	38.8	33.3	36.1
52.5°	4168.9	3015.1	158.1	130.4	127.6	91.5	61.0	30.5	16.6	16.6	16.6
55°	4596.1	3170.4	144.2	116.5	110.9	72.1	33.3	13.9	8.3	8.3	8.3
57.5°	4981.6	3259.1	130.4	102.6	88.8	49.9	13.9	5.5	5.5	2.8	2.8
60°	5333.9	3311.8	113.7	88.8	69.3	27.7	5.5	2.8	2.8	0.0	0.0
62.5°	5680.6	3350.7	97.1	72.1	52.7	11.1	2.8	2.8	0.0	0.0	0.0
65°	5944.1	3336.8	77.7	58.2	33.3	5.5	2.8	0.0	0.0	0.0	0.0
67.5°	5935.8	3148.2	58.2	44.4	16.6	2.8	0.0	0.0	0.0	0.0	0.0
70°	5308.9	2651.7	38.8	27.7	5.5	2.8	0.0	0.0	0.0	0.0	0.0
72.5°	3766.7	1700.3	25.0	16.6	2.8	0.0	0.0	0.0	0.0	0.0	0.0
75°	1658.7	515.9	13.9	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	324.5	119.3	8.3	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	77.7	13.9	2.8	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	33.3	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	8.3	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.5	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)