

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: P265831

Luminaire Tested: **ARCH-M-AF48-120-D-U-T4W-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265831
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-AF48-120-D-U-T4W-7027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 785mA 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: 9861.9 lumens
Efficiency: N/A
Efficacy: 80.8 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 - G2

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

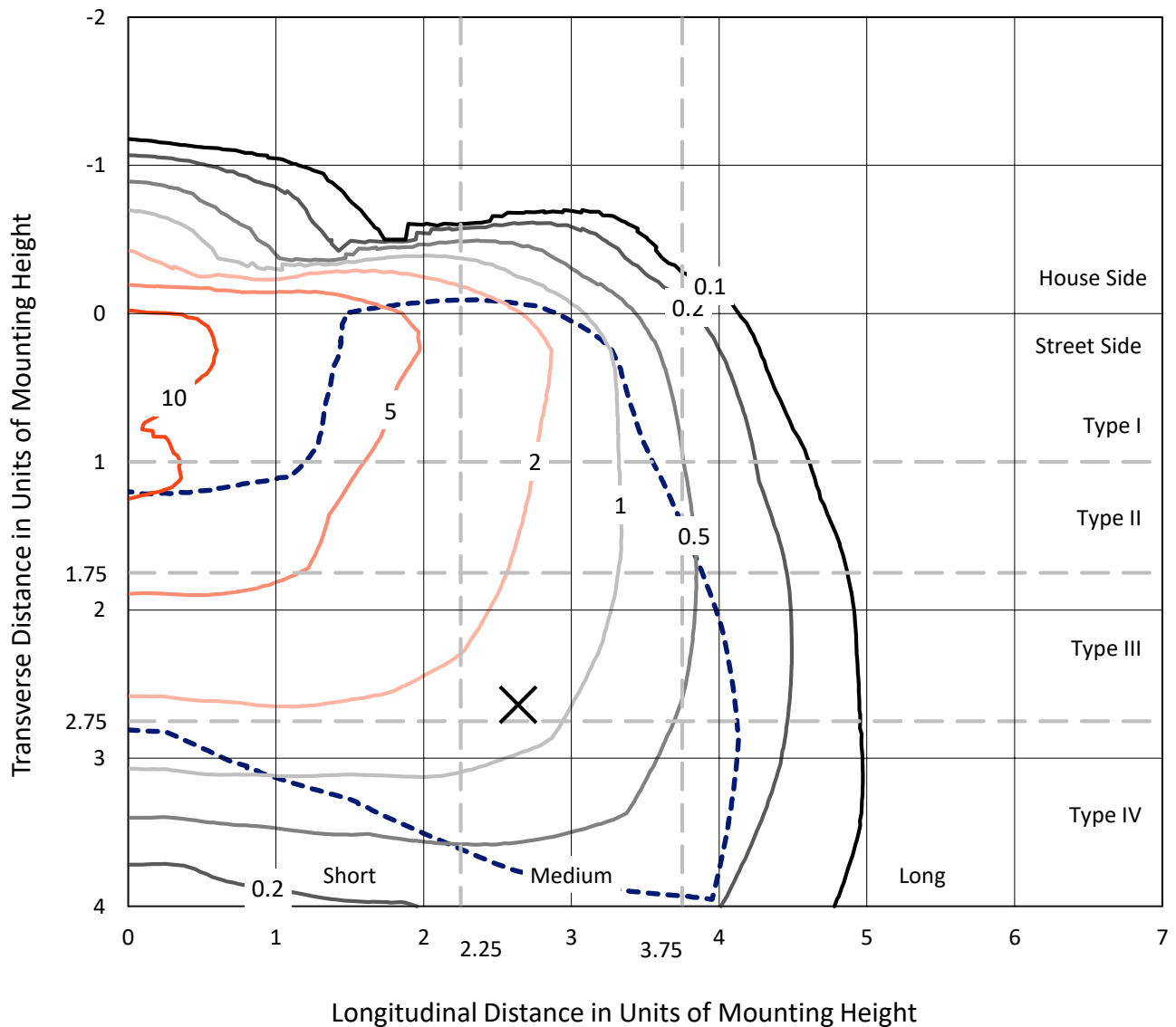


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

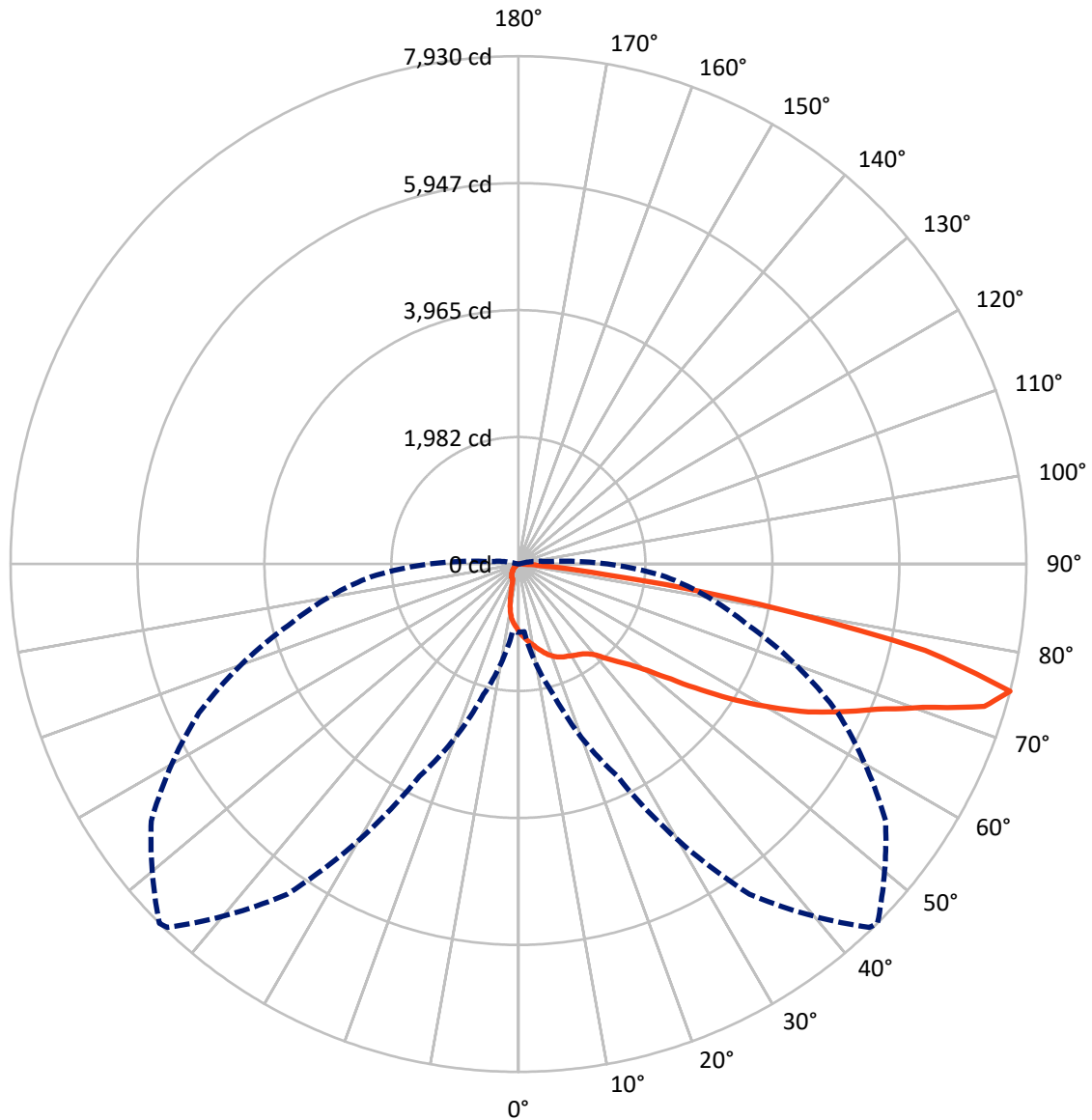


Based on 10 foot mounting height. Maximum calculated value = 14.1 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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

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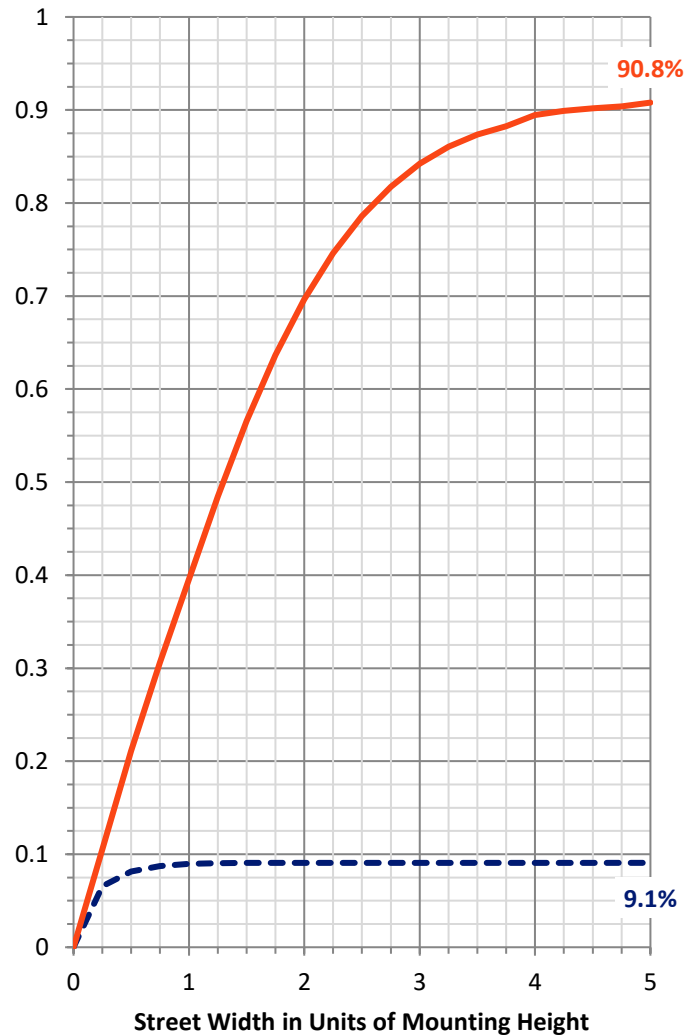
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	902.1	0.0	902.1
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	8959.9	0.0	8959.9
	% Fixture	90.9	0.0	90.9
Total	Lumens	9861.9	0.0	9861.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.5	1.0
10°-20°	282.0	2.9
20°-30°	467.1	4.7
30°-40°	676.0	6.9
40°-50°	1106.9	11.2
50°-60°	1972.2	20.0
60°-70°	2899.4	29.4
70°-80°	2187.3	22.2
80°-90°	171.6	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°	9861.9	100.0
0°-180°	9861.9	100.0



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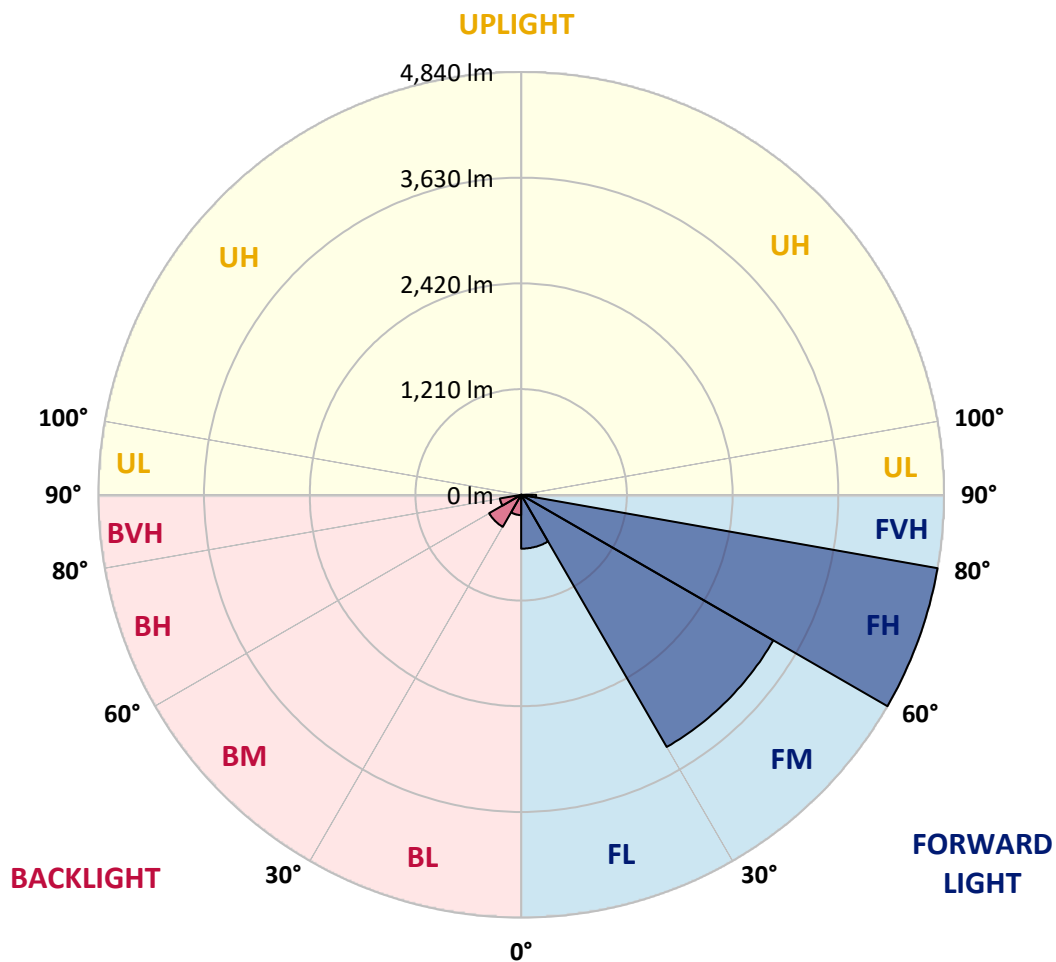
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	616.8	6.3			
FM	(30°-60°)	3332.3	33.8			
FH	(60°-80°)	4839.6	49.1			G2/5000
FVH	(80°-90°)	171.1	1.7			G2/225
BL	(0°-30°)	231.8	2.4	B1/500		
BM	(30°-60°)	422.7	4.3	B1/1000		
BH	(60°-80°)	247.1	2.5	B1/500		G1/500
BVH	(80°-90°)	0.5	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-G2

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8
2.5°	1145.8	1145.8	1143.5	1141.1	1129.4	1117.9	1115.4	1108.5	1087.5	1073.5	1059.5
5°	1241.5	1243.9	1239.1	1227.4	1201.8	1176.2	1173.7	1155.1	1115.4	1087.5	1057.1
7.5°	1332.5	1337.1	1325.4	1304.5	1274.2	1236.7	1234.5	1199.4	1148.2	1108.5	1064.1
10°	1409.5	1409.5	1393.1	1367.5	1334.8	1295.1	1290.4	1250.8	1192.5	1143.5	1085.2
12.5°	1493.5	1491.1	1467.8	1432.8	1395.4	1358.1	1355.8	1306.9	1250.8	1187.7	1115.4
15°	1570.4	1565.8	1535.6	1502.9	1463.2	1423.5	1421.2	1372.2	1313.9	1239.1	1159.8
17.5°	1612.5	1610.2	1582.2	1549.4	1516.9	1486.4	1484.2	1432.8	1369.8	1292.8	1204.2
20°	1619.6	1621.9	1598.5	1570.4	1551.8	1535.6	1535.6	1488.9	1421.2	1339.6	1250.8
22.5°	1621.9	1628.8	1612.5	1575.2	1570.4	1572.8	1577.6	1540.1	1470.2	1393.1	1299.8
25°	1638.1	1647.5	1635.9	1591.4	1586.9	1603.1	1607.8	1591.4	1528.5	1451.5	1355.8
27.5°	1670.8	1680.2	1670.8	1614.9	1607.8	1624.1	1628.8	1638.1	1591.4	1507.4	1414.1
30°	1736.2	1738.5	1717.5	1647.5	1633.5	1654.5	1661.5	1687.1	1649.8	1561.2	1470.2
32.5°	1850.6	1827.2	1764.2	1670.8	1659.2	1682.5	1689.5	1717.5	1703.5	1612.5	1528.5
35°	2083.9	1962.5	1817.9	1703.5	1691.9	1715.3	1724.6	1764.2	1771.2	1684.9	1600.9
37.5°	2081.6	1971.9	1943.9	1766.5	1750.2	1766.5	1778.3	1827.2	1855.2	1780.5	1705.8
40°	2228.5	2182.0	2182.0	1885.5	1831.9	1855.2	1866.9	1915.8	1965.0	1906.6	1829.6
42.5°	2690.7	2660.3	2627.6	2114.3	1946.2	2011.6	2018.5	2048.9	2107.2	2088.6	1997.6
45°	3206.4	3178.4	3052.4	2501.6	2142.3	2154.0	2170.2	2219.3	2303.3	2338.3	2230.9
47.5°	3610.1	3582.1	3474.7	2968.3	2447.9	2345.3	2345.3	2441.0	2571.6	2660.3	2557.7
50°	3934.4	3901.8	3836.4	3465.4	2949.7	2620.6	2606.6	2718.6	2912.3	3050.0	2979.9
52.5°	4249.5	4153.9	4114.1	3978.9	3516.8	3019.7	2982.4	3061.7	3330.0	3500.3	3442.0
55°	4459.5	4445.5	4403.5	4450.2	4111.8	3505.0	3472.4	3488.7	3824.8	3939.1	3866.8
57.5°	4655.6	4653.2	4746.6	4963.6	4760.6	4060.5	4009.1	3983.4	4303.2	4275.2	4338.2
60°	4898.2	4856.1	5073.3	5383.6	5355.6	4601.8	4543.4	4492.2	4669.5	4590.2	4902.9
62.5°	4909.9	4898.2	5339.3	5784.9	5946.1	5152.6	5084.9	4900.6	4989.2	4898.2	5441.9
65°	4464.1	4522.4	5451.3	5997.4	6440.8	5635.6	5554.0	5266.9	5273.9	5213.3	6076.7
67.5°	4363.8	4394.1	5143.2	6226.1	6797.7	6123.3	6046.3	5689.3	5605.3	5609.9	6452.3
70°	4114.1	4160.8	4760.6	6209.8	7080.1	6774.5	6697.5	6310.1	6107.0	5880.7	6163.0
72.5°	3143.3	3222.7	4011.4	5444.3	7003.1	7626.3	7605.2	7096.5	6307.7	5399.9	4662.6
75°	1064.1	1061.7	2107.2	3656.7	6291.4	7887.6	7929.6	6998.4	5502.6	3724.5	2314.9
77.5°	228.7	231.0	434.1	1481.8	4179.5	6333.4	6494.3	5278.6	3549.5	1659.2	529.7
80°	112.0	114.4	179.8	392.0	1670.8	3551.8	3803.8	2714.0	1311.4	331.4	88.7
82.5°	56.1	58.3	93.3	207.7	618.5	1262.5	1348.8	998.7	375.8	186.7	44.3
85°	21.0	21.0	46.7	123.6	282.3	296.4	364.1	289.3	226.4	151.6	11.7
87.5°	4.8	4.8	25.7	60.6	126.0	93.3	93.3	88.7	137.7	102.6	4.8
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°	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8
2.5°	1052.5	1043.1	1026.9	1010.5	998.7	984.8	977.7	970.8	968.5	966.0	970.8
5°	1040.7	1026.9	996.4	970.8	947.4	928.8	914.7	900.8	893.8	889.1	891.5
7.5°	1040.7	1019.8	975.4	935.8	898.5	858.8	819.1	788.7	765.4	751.4	753.8
10°	1052.5	1024.4	966.0	912.5	842.4	758.3	672.1	606.7	562.3	536.7	536.7
12.5°	1078.1	1040.7	968.5	884.4	765.4	618.5	487.7	408.4	375.8	357.0	359.4
15°	1113.1	1068.9	980.1	847.1	658.1	459.8	340.6	289.3	289.3	294.0	296.4
17.5°	1152.7	1103.7	989.5	791.0	520.4	329.0	268.4	263.7	270.7	282.3	282.3
20°	1192.5	1138.8	994.2	702.5	389.8	261.3	254.4	254.4	259.0	270.7	273.1
22.5°	1241.5	1183.2	989.5	592.7	291.7	247.4	245.1	245.1	245.1	259.0	259.0
25°	1292.8	1234.5	970.8	476.0	247.4	238.1	235.6	233.4	233.4	245.1	247.4
27.5°	1351.1	1288.2	926.4	364.1	233.4	228.7	226.4	221.7	221.7	231.0	231.0
30°	1409.5	1348.8	858.8	275.4	221.7	219.4	214.7	210.1	205.4	214.7	214.7
32.5°	1472.5	1411.9	770.0	219.4	205.4	205.4	203.0	196.0	191.3	196.0	198.3
35°	1556.6	1484.2	669.7	191.3	184.3	184.3	184.3	182.0	172.7	177.3	177.3
37.5°	1668.5	1584.5	553.0	177.3	168.1	163.3	163.3	163.3	156.3	158.7	158.7
40°	1810.9	1701.2	441.1	165.6	156.3	144.6	140.0	142.3	137.7	137.7	135.4
42.5°	2004.6	1827.2	331.4	156.3	147.1	130.7	121.4	119.0	114.4	112.0	112.0
45°	2282.2	1981.2	238.1	147.1	140.0	114.4	105.0	98.1	86.3	79.3	79.3
47.5°	2641.6	2156.2	177.3	137.7	132.9	100.3	88.7	74.6	58.3	53.7	53.7
50°	3080.4	2352.2	149.4	123.6	121.4	88.7	70.0	49.0	32.7	27.9	30.4
52.5°	3507.4	2536.6	132.9	109.7	107.3	77.1	51.4	25.7	14.1	14.1	14.1
55°	3866.8	2667.2	121.4	98.1	93.3	60.6	27.9	11.7	6.9	6.9	6.9
57.5°	4191.1	2741.9	109.7	86.3	74.6	42.0	11.7	4.8	4.8	2.3	2.3
60°	4487.6	2786.4	95.7	74.6	58.3	23.4	4.8	2.3	2.3	0.0	0.0
62.5°	4779.3	2819.1	81.7	60.6	44.3	9.3	2.3	2.3	0.0	0.0	0.0
65°	5001.0	2807.4	65.3	49.0	27.9	4.8	2.3	0.0	0.0	0.0	0.0
67.5°	4993.9	2648.7	49.0	37.3	14.1	2.3	0.0	0.0	0.0	0.0	0.0
70°	4466.6	2230.9	32.7	23.4	4.8	2.3	0.0	0.0	0.0	0.0	0.0
72.5°	3169.0	1430.6	21.0	14.1	2.3	0.0	0.0	0.0	0.0	0.0	0.0
75°	1395.4	434.1	11.7	6.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	273.1	100.3	6.9	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	65.3	11.7	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	27.9	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	6.9	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.8	2.3	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)