

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: P237443

Luminaire Tested: **ARCH-L-AF72-100-D-U-T4W-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237443
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-L-AF72-100-D-U-T4W-HSS
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 4000K, 440mA 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: 10383 lumens
Efficiency: N/A
Efficacy: 101.8 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G3

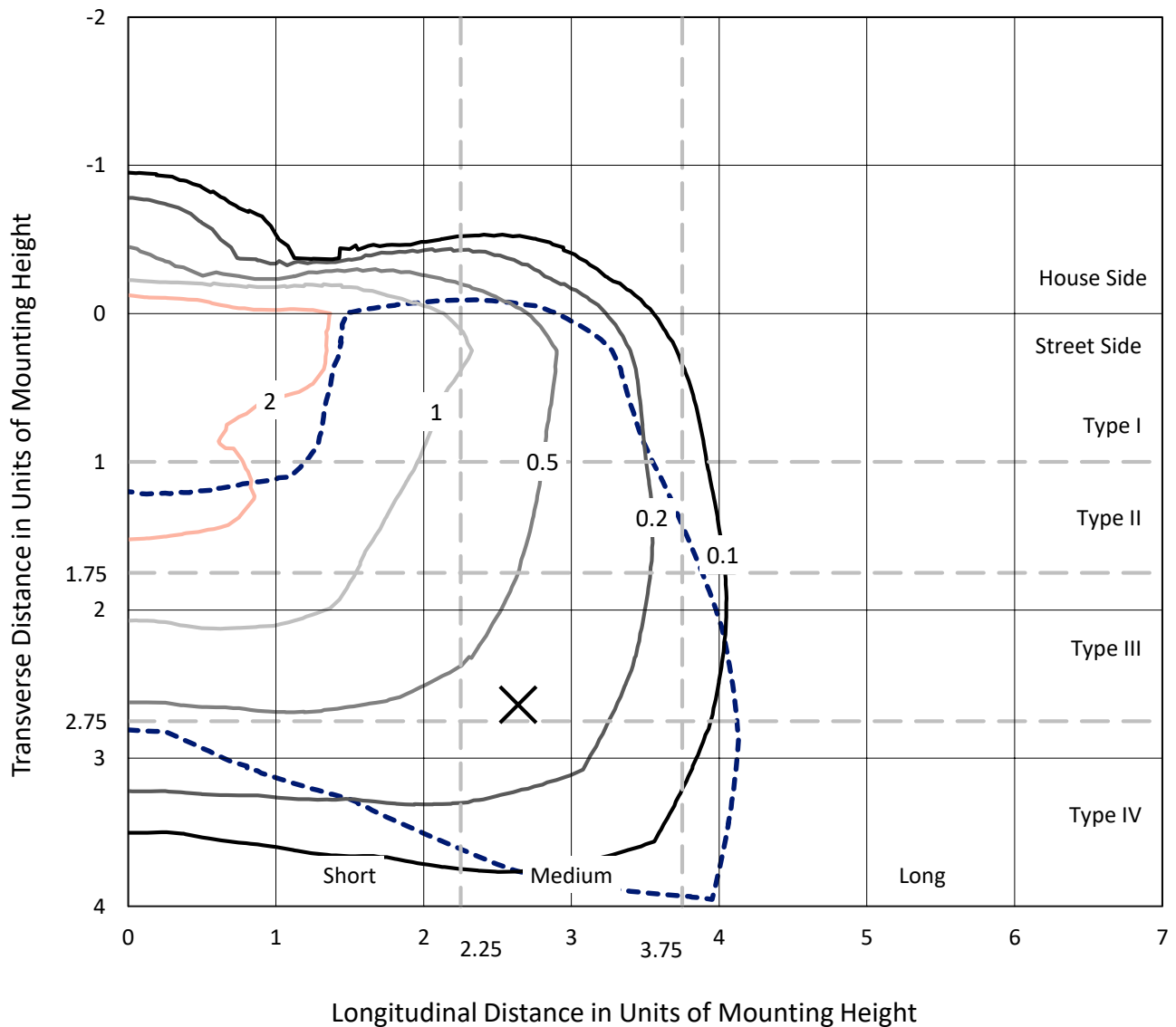
Input Watts (W): 102
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

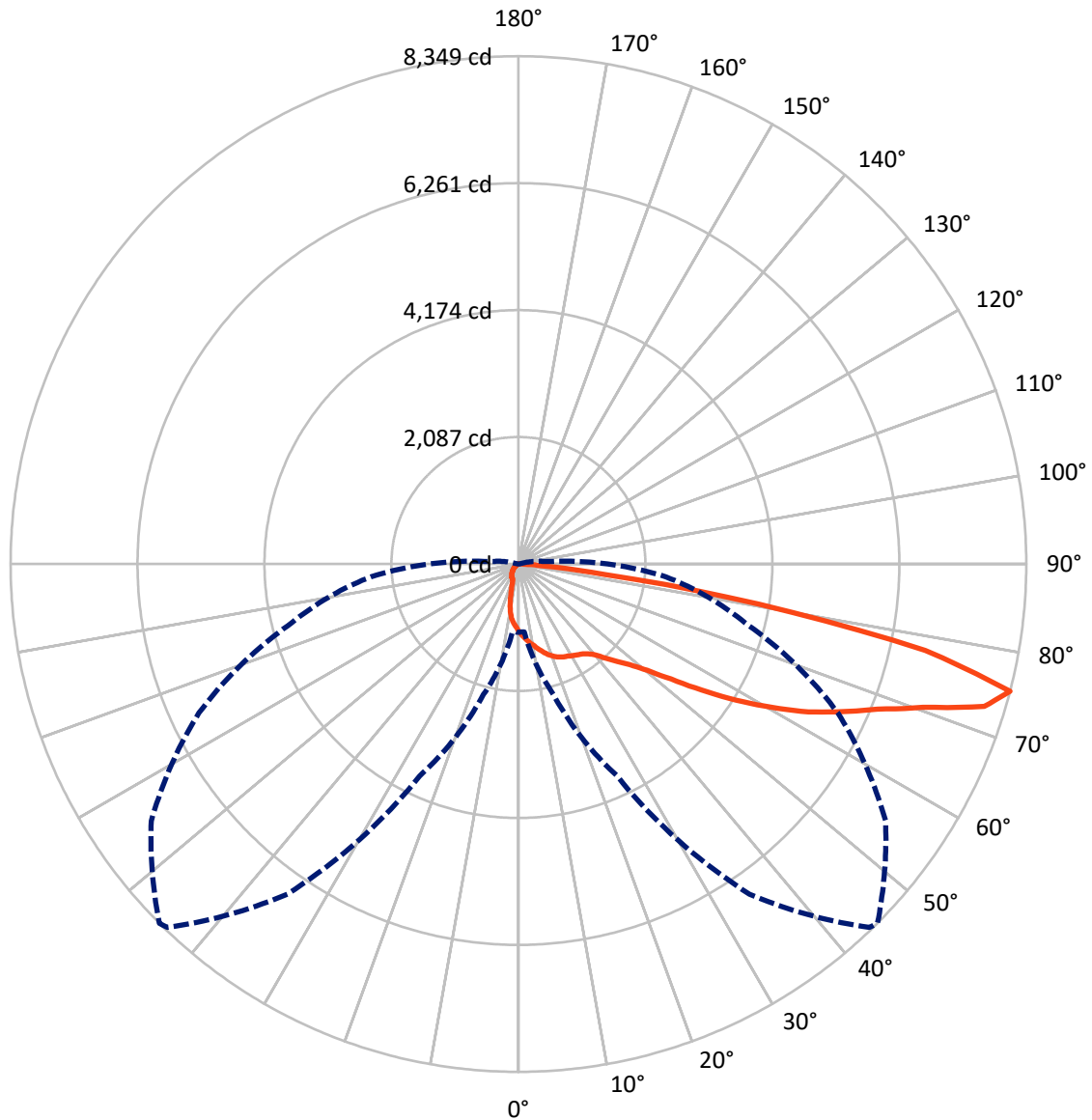
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.7 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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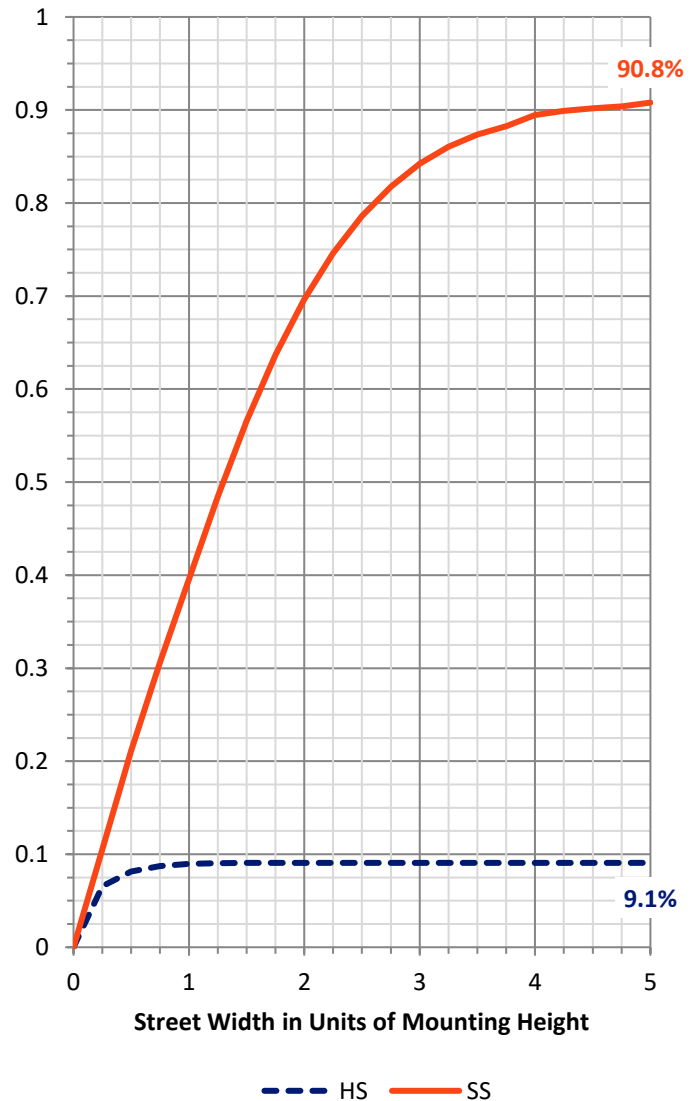
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	949.7	0.0	949.7
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	9433.2	0.0	9433.2
	% Fixture	90.9	0.0	90.9
Total	Lumens	10383.0	0.0	10383.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.8	1.0
10°-20°	296.9	2.9
20°-30°	491.7	4.7
30°-40°	711.7	6.9
40°-50°	1165.3	11.2
50°-60°	2076.4	20.0
60°-70°	3052.5	29.4
70°-80°	2302.9	22.2
80°-90°	180.7	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°	10383.0	100.0
0°-180°	10383.0	100.0



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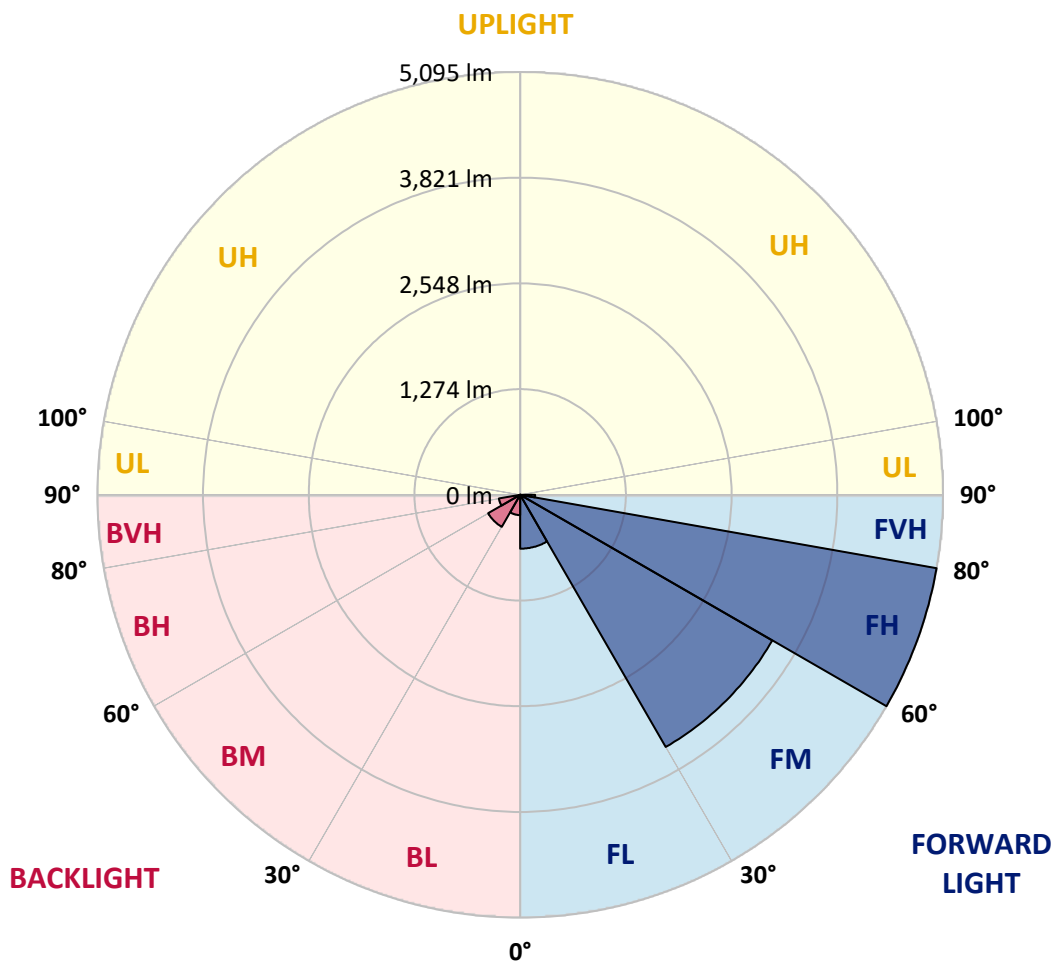
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	649.4	6.3			
FM	(30°-60°)	3508.3	33.8			
FH	(60°-80°)	5095.3	49.1			G3/7500
FVH	(80°-90°)	180.2	1.7			G2/225
BL	(0°-30°)	244.0	2.4	B1/500		
BM	(30°-60°)	445.1	4.3	B1/1000		
BH	(60°-80°)	260.1	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-G3

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5
2.5°	1206.4	1206.4	1203.9	1201.5	1189.2	1176.8	1174.3	1167.0	1144.9	1130.2	1115.4
5°	1307.0	1309.5	1304.6	1292.3	1265.3	1238.3	1235.8	1216.2	1174.3	1144.9	1113.0
7.5°	1402.9	1407.8	1395.5	1373.4	1341.5	1302.1	1299.7	1262.8	1208.8	1167.0	1120.3
10°	1484.0	1484.0	1466.8	1439.7	1405.3	1363.6	1358.7	1316.8	1255.5	1203.9	1142.4
12.5°	1572.4	1569.9	1545.4	1508.5	1469.3	1429.9	1427.4	1375.9	1316.8	1250.6	1174.3
15°	1653.5	1648.6	1616.7	1582.2	1540.5	1498.7	1496.3	1444.6	1383.2	1304.6	1221.1
17.5°	1697.7	1695.2	1665.8	1631.4	1596.9	1565.0	1562.6	1508.5	1442.2	1361.1	1267.7
20°	1705.1	1707.5	1683.0	1653.5	1633.9	1616.7	1616.7	1567.5	1496.3	1410.2	1316.8
22.5°	1707.5	1714.9	1697.7	1658.4	1653.5	1656.0	1660.9	1621.6	1547.8	1466.8	1368.5
25°	1724.7	1734.5	1722.2	1675.6	1670.7	1687.9	1692.8	1675.6	1609.3	1528.2	1427.4
27.5°	1759.2	1769.0	1759.2	1700.1	1692.8	1710.0	1714.9	1724.7	1675.6	1587.1	1488.9
30°	1827.9	1830.4	1808.3	1734.5	1719.8	1742.0	1749.3	1776.4	1737.0	1643.7	1547.8
32.5°	1948.3	1923.8	1857.4	1759.2	1746.9	1771.4	1778.8	1808.3	1793.5	1697.7	1609.3
35°	2194.0	2066.3	1913.9	1793.5	1781.3	1805.8	1815.6	1857.4	1864.7	1773.9	1685.4
37.5°	2191.6	2076.1	2046.6	1859.8	1842.6	1859.8	1872.1	1923.8	1953.2	1874.6	1796.0
40°	2346.3	2297.1	2297.1	1985.1	1928.7	1953.2	1965.5	2017.1	2068.7	2007.2	1926.2
42.5°	2832.8	2800.8	2766.5	2225.9	2049.1	2117.8	2125.2	2157.1	2218.6	2198.9	2103.1
45°	3375.7	3346.3	3213.6	2633.8	2255.4	2267.7	2284.9	2336.5	2424.9	2461.8	2348.8
47.5°	3800.8	3771.3	3658.3	3125.1	2577.3	2469.2	2469.2	2569.9	2707.4	2800.8	2692.7
50°	4142.3	4108.0	4039.1	3648.5	3105.5	2759.1	2744.4	2862.3	3066.2	3211.1	3137.5
52.5°	4474.0	4373.2	4331.5	4189.0	3702.6	3179.2	3139.9	3223.4	3506.0	3685.3	3623.9
55°	4695.1	4680.4	4636.1	4685.3	4329.0	3690.3	3655.8	3673.0	4026.8	4147.2	4071.0
57.5°	4901.5	4899.0	4997.3	5225.8	5012.0	4275.0	4220.9	4193.9	4530.5	4501.0	4567.4
60°	5157.0	5112.8	5341.2	5668.1	5638.5	4845.0	4783.5	4729.5	4916.2	4832.7	5161.9
62.5°	5169.3	5157.0	5621.3	6090.6	6260.2	5424.8	5353.5	5159.5	5252.9	5157.0	5729.4
65°	4700.0	4761.4	5739.3	6314.2	6781.0	5933.4	5847.4	5545.2	5552.6	5488.6	6397.7
67.5°	4594.4	4626.3	5415.0	6555.0	7156.9	6446.8	6365.8	5989.9	5901.4	5906.3	6793.3
70°	4331.5	4380.6	5012.0	6537.8	7454.2	7132.3	7051.3	6643.5	6429.7	6191.3	6488.7
72.5°	3309.5	3392.9	4223.4	5731.9	7373.1	8029.1	8007.0	7471.4	6641.0	5685.3	4908.8
75°	1120.3	1117.9	2218.6	3850.0	6623.8	8304.3	8348.5	7368.2	5793.4	3921.2	2437.3
77.5°	240.8	243.3	457.0	1560.1	4400.3	6668.0	6837.5	5557.5	3736.9	1746.9	557.7
80°	117.9	120.4	189.1	412.8	1759.2	3739.4	4004.8	2857.4	1380.8	348.9	93.4
82.5°	58.9	61.4	98.3	218.7	651.1	1329.2	1420.1	1051.6	395.6	196.5	46.6
85°	22.1	22.1	49.1	130.2	297.3	312.0	383.3	304.6	238.3	159.7	12.3
87.5°	4.9	4.9	27.0	63.8	132.7	98.3	98.3	93.4	145.0	108.1	4.9
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°	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5
2.5°	1108.1	1098.2	1081.1	1063.9	1051.6	1036.8	1029.4	1022.0	1019.6	1017.1	1022.0
5°	1095.8	1081.1	1049.1	1022.0	997.5	977.8	963.1	948.4	941.0	936.1	938.6
7.5°	1095.8	1073.7	1026.9	985.2	945.9	904.1	862.3	830.4	805.9	791.2	793.6
10°	1108.1	1078.6	1017.1	960.7	886.9	798.5	707.6	638.8	592.1	565.1	565.1
12.5°	1135.1	1095.8	1019.6	931.2	805.9	651.1	513.5	429.9	395.6	375.9	378.4
15°	1171.9	1125.2	1031.9	891.8	692.8	484.0	358.7	304.6	304.6	309.5	312.0
17.5°	1213.7	1162.1	1041.7	832.9	547.9	346.4	282.5	277.6	285.0	297.3	297.3
20°	1255.5	1199.0	1046.7	739.5	410.3	275.2	267.8	267.8	272.7	285.0	287.4
22.5°	1307.0	1245.6	1041.7	624.0	307.1	260.4	258.0	258.0	258.0	272.7	272.7
25°	1361.1	1299.7	1022.0	501.2	260.4	250.6	248.2	245.7	245.7	258.0	260.4
27.5°	1422.5	1356.2	975.4	383.3	245.7	240.8	238.3	233.4	233.4	243.3	243.3
30°	1484.0	1420.1	904.1	289.9	233.4	231.0	226.1	221.2	216.3	226.1	226.1
32.5°	1550.3	1486.4	810.8	231.0	216.3	216.3	213.8	206.3	201.4	206.3	208.8
35°	1638.8	1562.6	705.1	201.4	194.1	194.1	194.1	191.6	181.8	186.7	186.7
37.5°	1756.7	1668.2	582.3	186.7	176.9	172.0	172.0	172.0	164.6	167.0	167.0
40°	1906.6	1791.1	464.3	174.4	164.6	152.3	147.4	149.9	145.0	145.0	142.5
42.5°	2110.4	1923.8	348.9	164.6	154.8	137.6	127.8	125.3	120.4	117.9	117.9
45°	2402.8	2085.9	250.6	154.8	147.4	120.4	110.6	103.2	90.9	83.6	83.6
47.5°	2781.2	2270.1	186.7	145.0	140.0	105.7	93.4	78.7	61.4	56.5	56.5
50°	3243.1	2476.6	157.2	130.2	127.8	93.4	73.8	51.6	34.4	29.5	31.9
52.5°	3692.8	2670.6	140.0	115.5	113.0	81.1	54.0	27.0	14.7	14.7	14.7
55°	4071.0	2808.2	127.8	103.2	98.3	63.8	29.5	12.3	7.4	7.4	7.4
57.5°	4412.6	2886.9	115.5	90.9	78.7	44.2	12.3	4.9	4.9	2.5	2.5
60°	4724.6	2933.5	100.8	78.7	61.4	24.6	4.9	2.5	2.5	0.0	0.0
62.5°	5031.7	2967.9	86.0	63.8	46.6	9.8	2.5	2.5	0.0	0.0	0.0
65°	5265.1	2955.6	68.7	51.6	29.5	4.9	2.5	0.0	0.0	0.0	0.0
67.5°	5257.8	2788.6	51.6	39.3	14.7	2.5	0.0	0.0	0.0	0.0	0.0
70°	4702.5	2348.8	34.4	24.6	4.9	2.5	0.0	0.0	0.0	0.0	0.0
72.5°	3336.5	1506.1	22.1	14.7	2.5	0.0	0.0	0.0	0.0	0.0	0.0
75°	1469.3	457.0	12.3	7.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	287.4	105.7	7.4	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	68.7	12.3	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	29.5	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	7.4	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.9	2.5	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)