

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: P231356

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231356
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-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 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: 11612.5 lumens
Efficiency: N/A
Efficacy: 95.2 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): 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

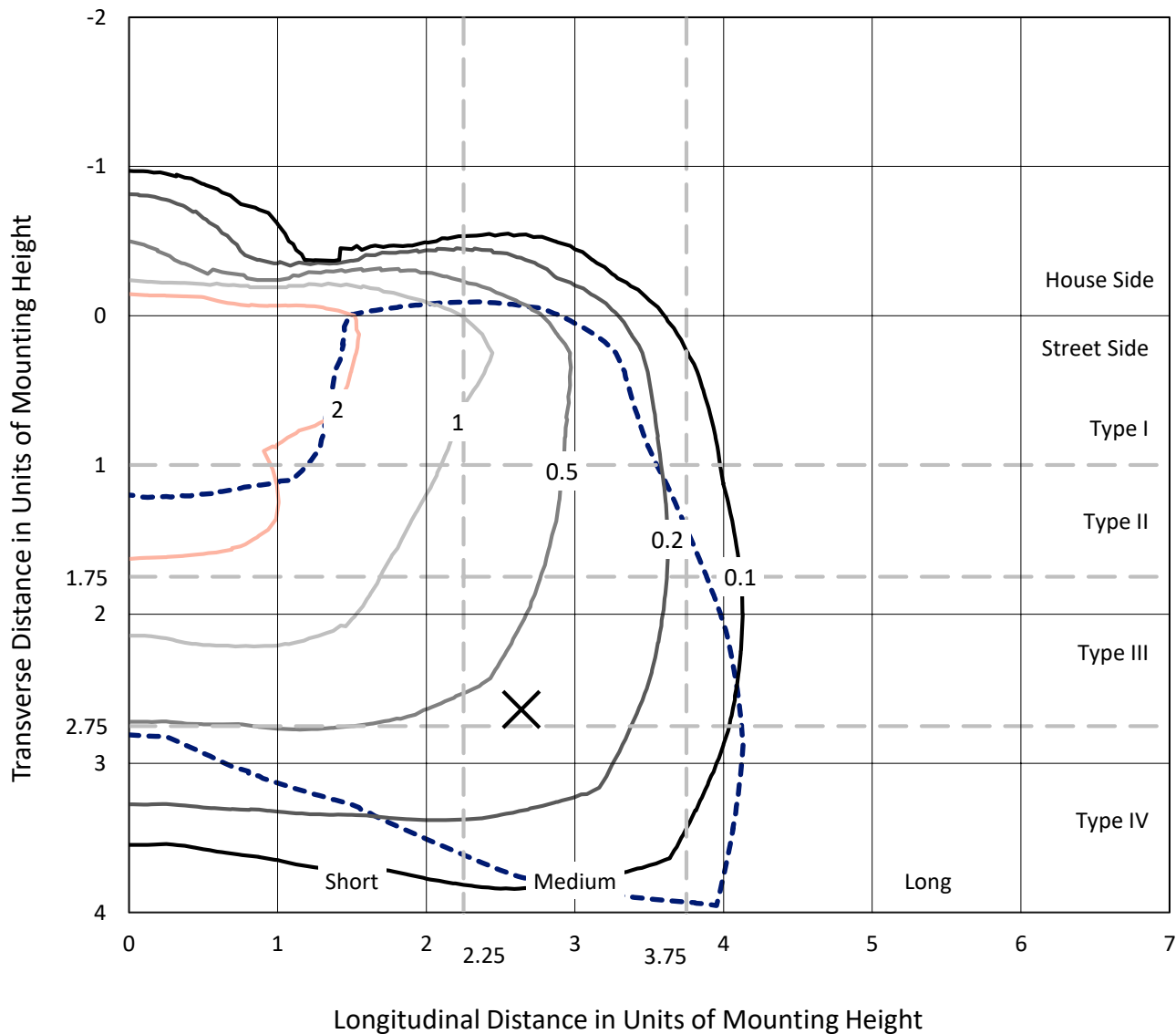


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

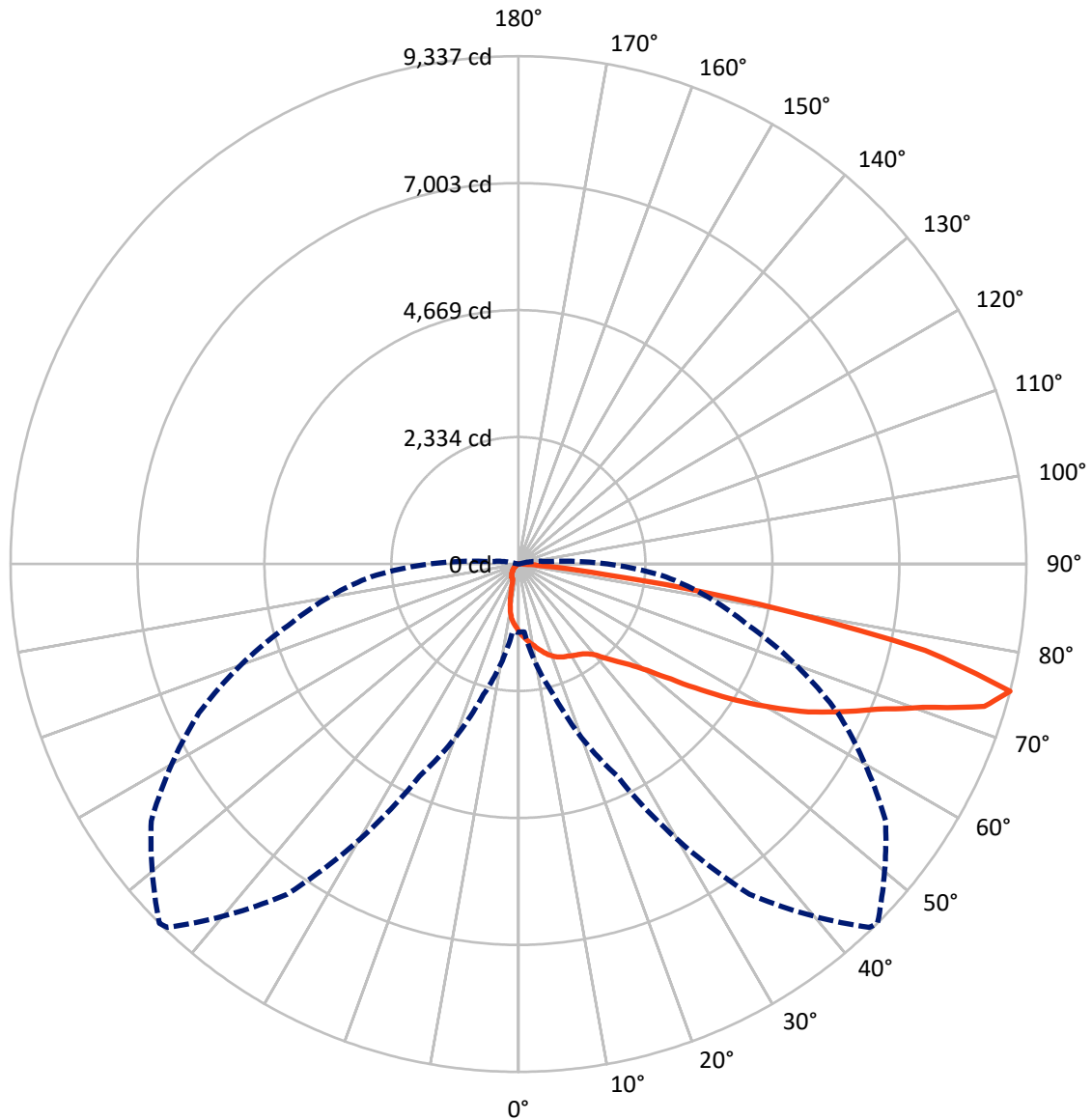


Based on 20 foot mounting height. Maximum calculated value = 4.1 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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



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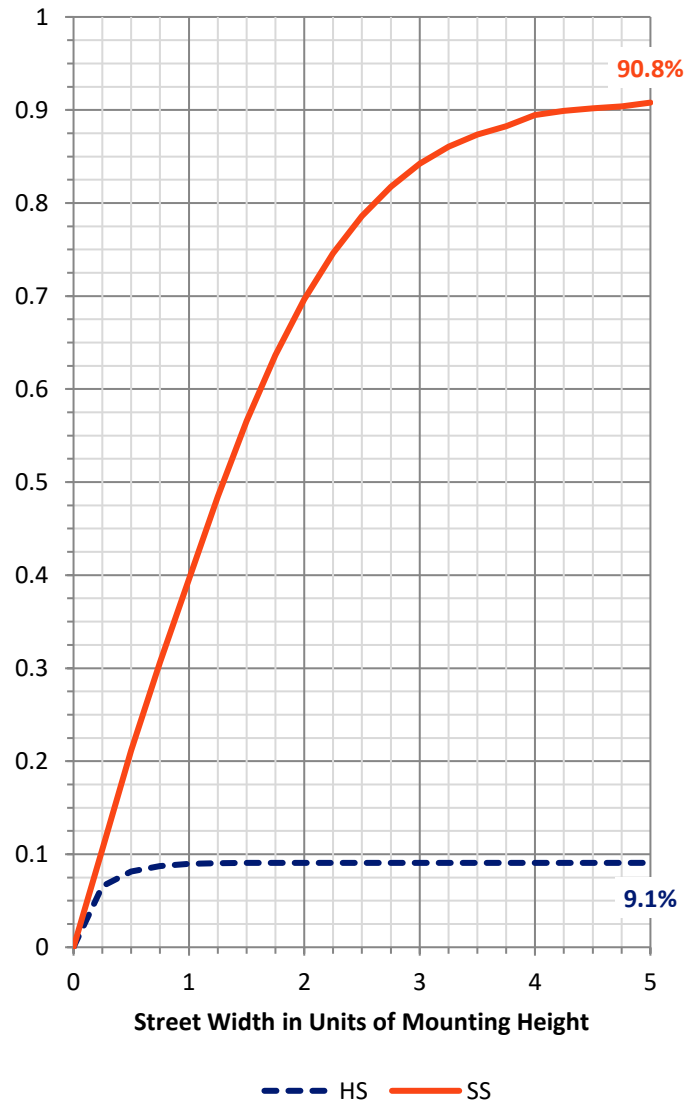
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1062.2	0.0	1062.2
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	10550.3	0.0	10550.3
	% Fixture	90.9	0.0	90.9
Total	Lumens	11612.5	0.0	11612.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.2	1.0
10°-20°	332.1	2.9
20°-30°	550.0	4.7
30°-40°	796.0	6.9
40°-50°	1303.3	11.2
50°-60°	2322.3	20.0
60°-70°	3414.0	29.4
70°-80°	2575.6	22.2
80°-90°	202.1	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°	11612.5	100.0
0°-180°	11612.5	100.0



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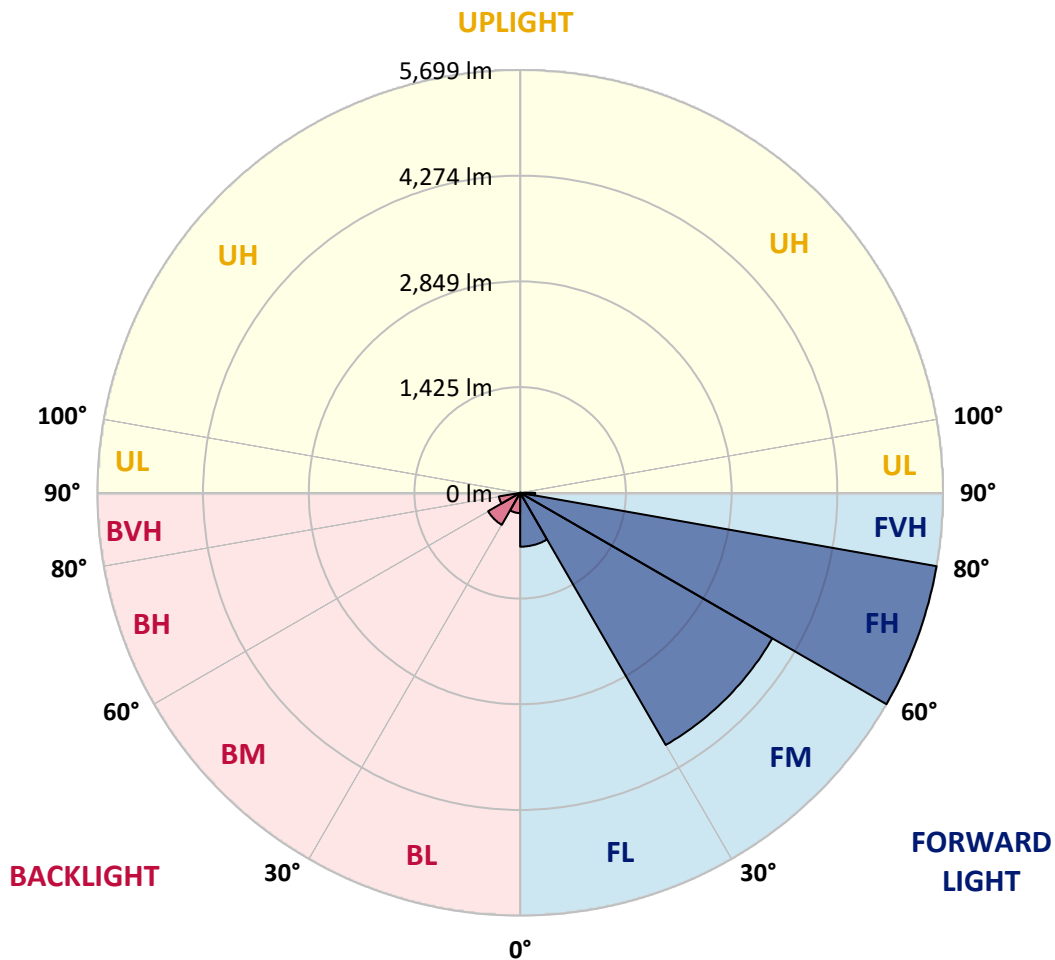
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	726.3	6.3			
FM	(30°-60°)	3923.8	33.8			
FH	(60°-80°)	5698.7	49.1			G3/7500
FVH	(80°-90°)	201.5	1.7			G2/225
BL	(0°-30°)	272.9	2.4	B1/500		
BM	(30°-60°)	497.8	4.3	B1/1000		
BH	(60°-80°)	290.9	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°	1242.1	1242.1	1242.1	1242.1	1242.1	1242.1	1242.1	1242.1	1242.1	1242.1	1242.1
2.5°	1349.2	1349.2	1346.4	1343.6	1329.9	1316.2	1313.5	1305.2	1280.5	1264.0	1247.5
5°	1461.9	1464.6	1459.1	1445.3	1415.2	1384.9	1382.2	1360.2	1313.5	1280.5	1244.7
7.5°	1569.0	1574.5	1560.8	1536.1	1500.4	1456.4	1453.6	1412.4	1351.9	1305.2	1253.0
10°	1659.7	1659.7	1640.5	1610.2	1571.8	1525.0	1519.6	1472.8	1404.1	1346.4	1277.8
12.5°	1758.7	1755.9	1728.4	1687.2	1643.2	1599.3	1596.5	1538.8	1472.8	1398.7	1313.5
15°	1849.3	1843.8	1808.1	1769.6	1722.9	1676.2	1673.4	1615.8	1547.0	1459.1	1365.6
17.5°	1898.8	1896.0	1863.0	1824.5	1786.1	1750.4	1747.6	1687.2	1613.0	1522.3	1417.9
20°	1907.0	1909.7	1882.2	1849.3	1827.3	1808.1	1808.1	1753.1	1673.4	1577.3	1472.8
22.5°	1909.7	1918.0	1898.8	1854.8	1849.3	1852.1	1857.6	1813.6	1731.1	1640.5	1530.5
25°	1929.0	1940.0	1926.2	1874.0	1868.5	1887.8	1893.3	1874.0	1799.9	1709.1	1596.5
27.5°	1967.4	1978.5	1967.4	1901.5	1893.3	1912.5	1918.0	1929.0	1874.0	1775.1	1665.2
30°	2044.4	2047.1	2022.4	1940.0	1923.5	1948.2	1956.5	1986.7	1942.7	1838.3	1731.1
32.5°	2179.0	2151.6	2077.4	1967.4	1953.7	1981.1	1989.4	2022.4	2005.9	1898.8	1799.9
35°	2453.9	2310.9	2140.5	2005.9	1992.2	2019.6	2030.7	2077.4	2085.6	1983.9	1885.0
37.5°	2451.1	2321.9	2289.0	2080.1	2060.8	2080.1	2093.9	2151.6	2184.5	2096.6	2008.7
40°	2624.2	2569.2	2569.2	2220.2	2157.1	2184.5	2198.3	2256.0	2313.7	2245.0	2154.3
42.5°	3168.3	3132.6	3094.1	2489.6	2291.7	2368.6	2376.9	2412.6	2481.3	2459.3	2352.2
45°	3775.5	3742.6	3594.1	2945.7	2522.5	2536.3	2555.5	2613.2	2712.1	2753.4	2626.9
47.5°	4250.9	4217.9	4091.5	3495.2	2882.5	2761.6	2761.6	2874.3	3028.1	3132.6	3011.7
50°	4632.8	4594.4	4517.5	4080.6	3473.2	3085.8	3069.4	3201.2	3429.3	3591.5	3509.0
52.5°	5003.9	4891.1	4844.5	4685.1	4141.0	3555.7	3511.8	3605.2	3921.2	4121.8	4053.0
55°	5251.1	5234.6	5185.1	5240.2	4841.7	4127.3	4088.8	4108.1	4503.7	4638.4	4553.2
57.5°	5481.9	5479.2	5589.1	5844.6	5605.6	4781.3	4720.8	4690.5	5067.0	5034.0	5108.2
60°	5767.7	5718.3	5973.8	6339.2	6306.3	5418.8	5350.0	5289.6	5498.5	5405.0	5773.2
62.5°	5781.4	5767.7	6287.1	6811.9	7001.5	6067.2	5987.5	5770.5	5874.9	5767.7	6408.0
65°	5256.6	5325.3	6418.9	7061.9	7584.1	6636.0	6539.8	6201.8	6210.1	6138.6	7155.3
67.5°	5138.5	5174.2	6056.3	7331.3	8004.5	7210.4	7119.6	6699.2	6600.3	6605.8	7597.8
70°	4844.5	4899.4	5605.6	7312.1	8336.9	7977.0	7886.3	7430.2	7191.1	6924.6	7257.0
72.5°	3701.3	3794.7	4723.6	6410.7	8246.3	8980.0	8955.2	8356.2	7427.4	6358.5	5490.2
75°	1253.0	1250.3	2481.3	4305.9	7408.2	9287.7	9337.2	8240.8	6479.4	4385.6	2725.9
77.5°	269.2	272.0	511.1	1744.8	4921.4	7457.6	7647.3	6215.7	4179.5	1953.7	623.8
80°	131.9	134.6	211.5	461.7	1967.4	4182.2	4479.0	3195.7	1544.2	390.2	104.4
82.5°	66.0	68.7	109.9	244.6	728.1	1486.6	1588.2	1176.1	442.4	219.8	52.2
85°	24.8	24.8	54.9	145.7	332.5	348.9	428.6	340.7	266.6	178.6	13.7
87.5°	5.5	5.5	30.2	71.4	148.4	109.9	109.9	104.4	162.1	120.9	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°	1242.1	1242.1	1242.1	1242.1	1242.1	1242.1	1242.1	1242.1	1242.1	1242.1	1242.1
2.5°	1239.3	1228.3	1209.0	1189.8	1176.1	1159.6	1151.3	1143.1	1140.4	1137.6	1143.1
5°	1225.5	1209.0	1173.3	1143.1	1115.6	1093.6	1077.2	1060.7	1052.4	1046.9	1049.6
7.5°	1225.5	1200.8	1148.6	1101.9	1057.9	1011.2	964.5	928.7	901.3	884.9	887.5
10°	1239.3	1206.3	1137.6	1074.4	992.0	893.0	791.4	714.4	662.3	632.0	632.0
12.5°	1269.5	1225.5	1140.4	1041.5	901.3	728.1	574.3	480.9	442.4	420.4	423.2
15°	1310.7	1258.5	1154.1	997.5	774.9	541.3	401.2	340.7	340.7	346.3	348.9
17.5°	1357.5	1299.8	1165.0	931.5	612.7	387.5	316.0	310.5	318.8	332.5	332.5
20°	1404.1	1341.0	1170.6	827.1	458.9	307.8	299.5	299.5	305.0	318.8	321.5
22.5°	1461.9	1393.2	1165.0	698.0	343.5	291.2	288.5	288.5	288.5	305.0	305.0
25°	1522.3	1453.6	1143.1	560.6	291.2	280.3	277.5	274.8	274.8	288.5	291.2
27.5°	1591.0	1516.8	1090.9	428.6	274.8	269.2	266.6	261.1	261.1	272.0	272.0
30°	1659.7	1588.2	1011.2	324.3	261.1	258.3	252.8	247.3	241.8	252.8	252.8
32.5°	1733.9	1662.4	906.7	258.3	241.8	241.8	239.1	230.8	225.4	230.8	233.5
35°	1832.8	1747.6	788.6	225.4	217.1	217.1	217.1	214.3	203.4	208.9	208.9
37.5°	1964.7	1865.8	651.2	208.9	197.8	192.3	192.3	192.3	184.1	186.9	186.9
40°	2132.3	2003.1	519.4	195.1	184.1	170.3	164.9	167.7	162.1	162.1	159.4
42.5°	2360.4	2151.6	390.2	184.1	173.1	153.9	142.9	140.1	134.6	131.9	131.9
45°	2687.4	2332.9	280.3	173.1	164.9	134.6	123.7	115.4	101.7	93.4	93.4
47.5°	3110.6	2539.0	208.9	162.1	156.6	118.2	104.4	88.0	68.7	63.2	63.2
50°	3627.2	2769.8	175.8	145.7	142.9	104.4	82.4	57.7	38.5	32.9	35.7
52.5°	4130.0	2986.9	156.6	129.2	126.4	90.6	60.5	30.2	16.5	16.5	16.5
55°	4553.2	3140.8	142.9	115.4	109.9	71.4	32.9	13.7	8.3	8.3	8.3
57.5°	4935.1	3228.7	129.2	101.7	88.0	49.5	13.7	5.5	5.5	2.8	2.8
60°	5284.1	3280.9	112.6	88.0	68.7	27.5	5.5	2.8	2.8	0.0	0.0
62.5°	5627.6	3319.4	96.2	71.4	52.2	10.9	2.8	2.8	0.0	0.0	0.0
65°	5888.6	3305.7	76.9	57.7	32.9	5.5	2.8	0.0	0.0	0.0	0.0
67.5°	5880.3	3118.8	57.7	44.0	16.5	2.8	0.0	0.0	0.0	0.0	0.0
70°	5259.4	2626.9	38.5	27.5	5.5	2.8	0.0	0.0	0.0	0.0	0.0
72.5°	3731.5	1684.4	24.8	16.5	2.8	0.0	0.0	0.0	0.0	0.0	0.0
75°	1643.2	511.1	13.7	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	321.5	118.2	8.3	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	76.9	13.7	2.8	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	32.9	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)