

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: P234855

Luminaire Tested: **ARCH-M-AF48-150-D-U-T4W-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234855
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-8027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 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: 10289 lumens
Efficiency: N/A
Efficacy: 68.1 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

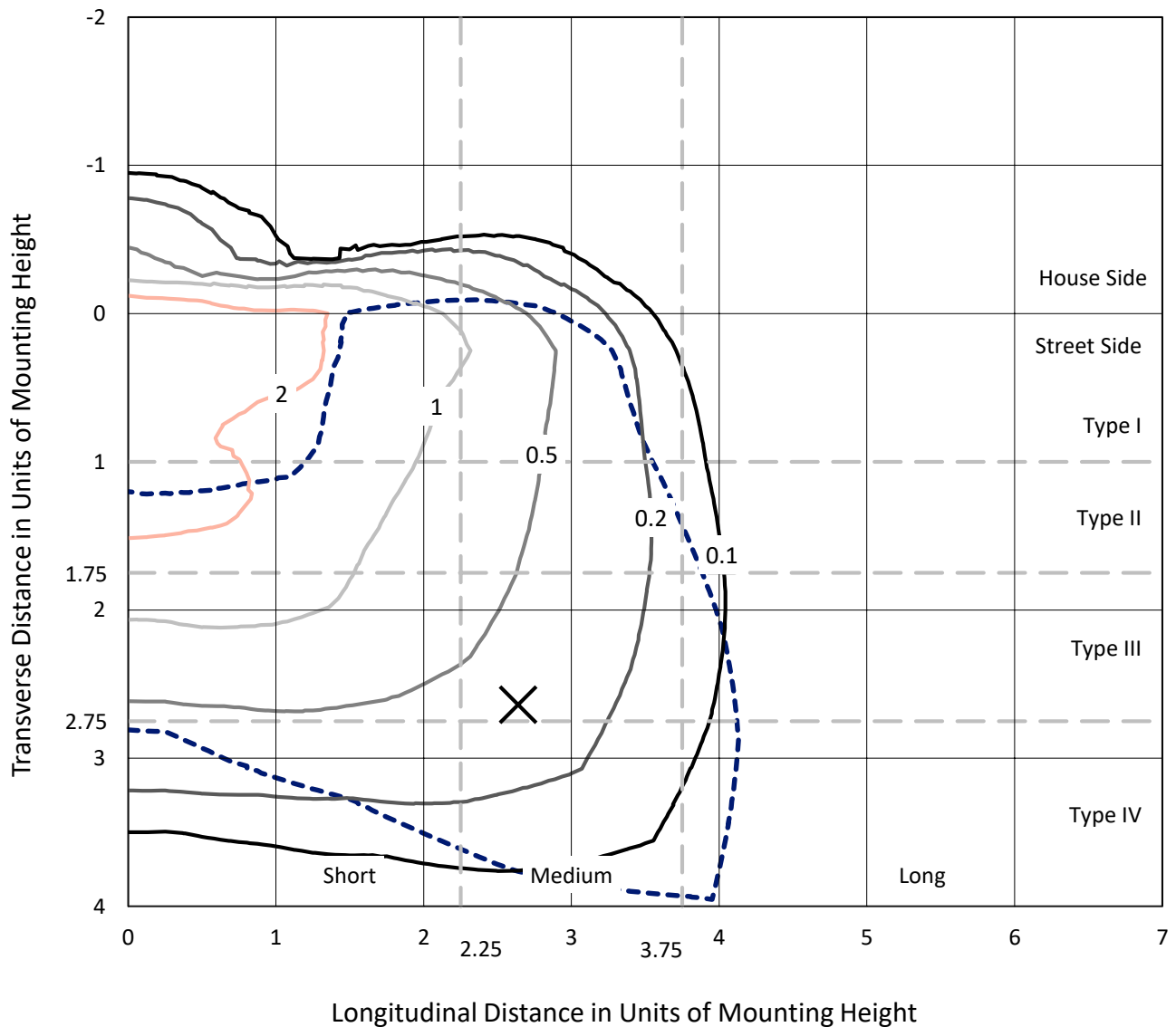


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

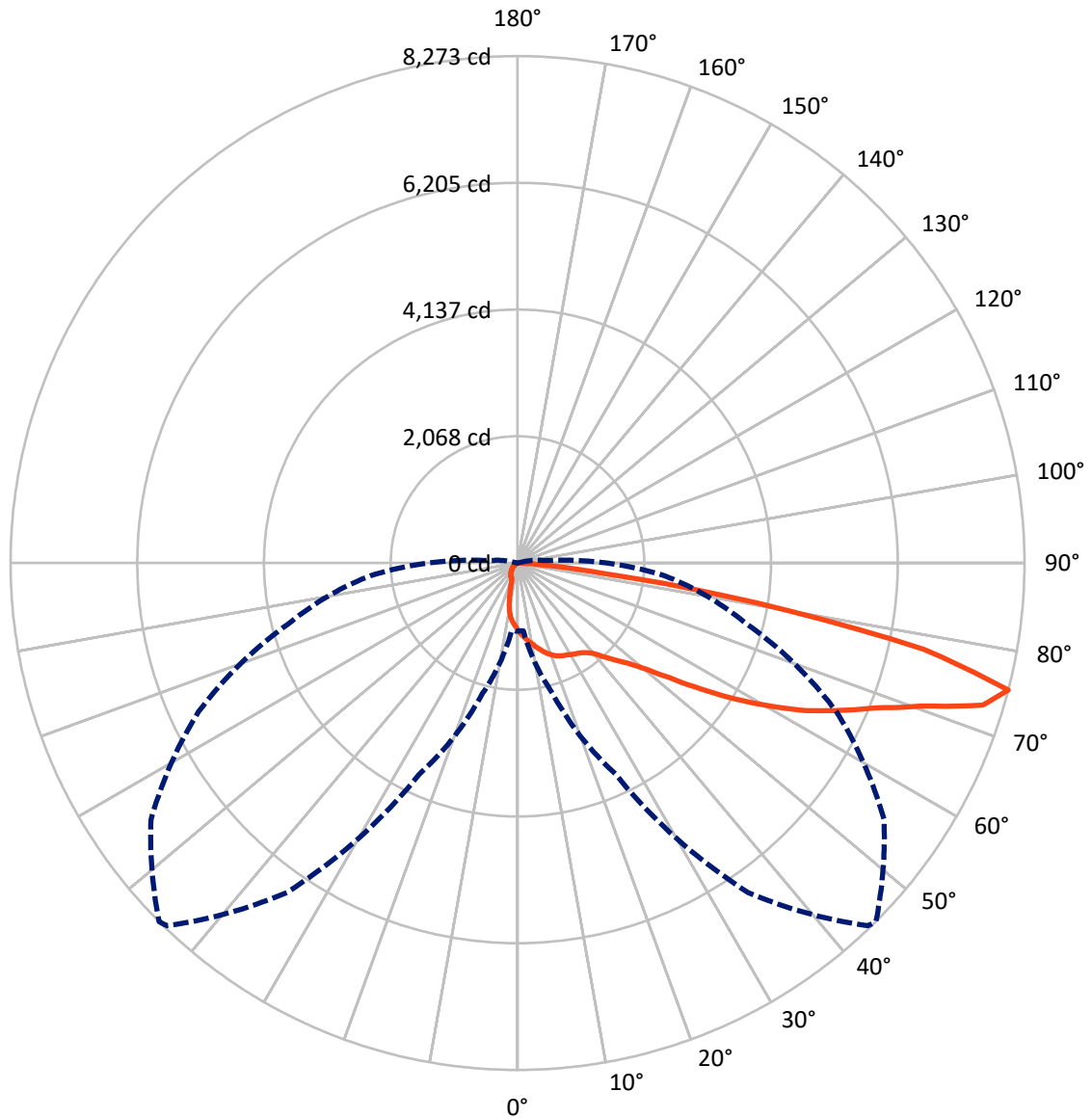


Based on 20 foot mounting height. Maximum calculated value = 3.7 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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

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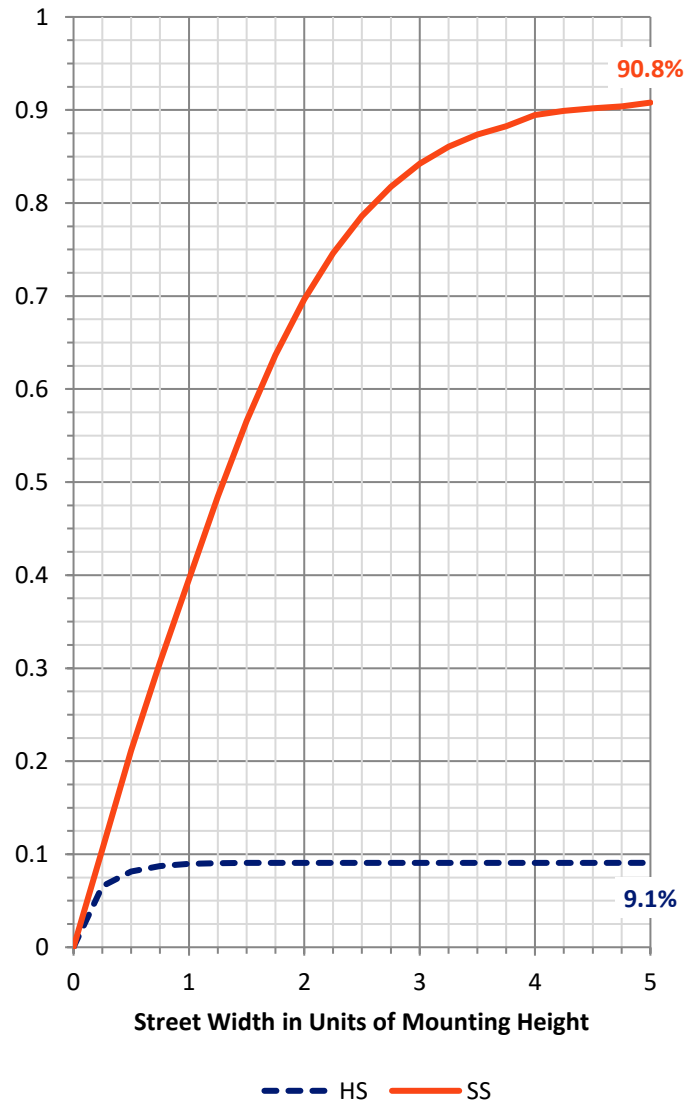
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	941.1	0.0	941.1
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	9347.9	0.0	9347.9
	% Fixture	90.9	0.0	90.9
Total	Lumens	10289.0	0.0	10289.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.9	1.0
10°-20°	294.2	2.9
20°-30°	487.3	4.7
30°-40°	705.2	6.9
40°-50°	1154.8	11.2
50°-60°	2057.6	20.0
60°-70°	3024.9	29.4
70°-80°	2282.0	22.2
80°-90°	179.0	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°	10289.0	100.0
0°-180°	10289.0	100.0



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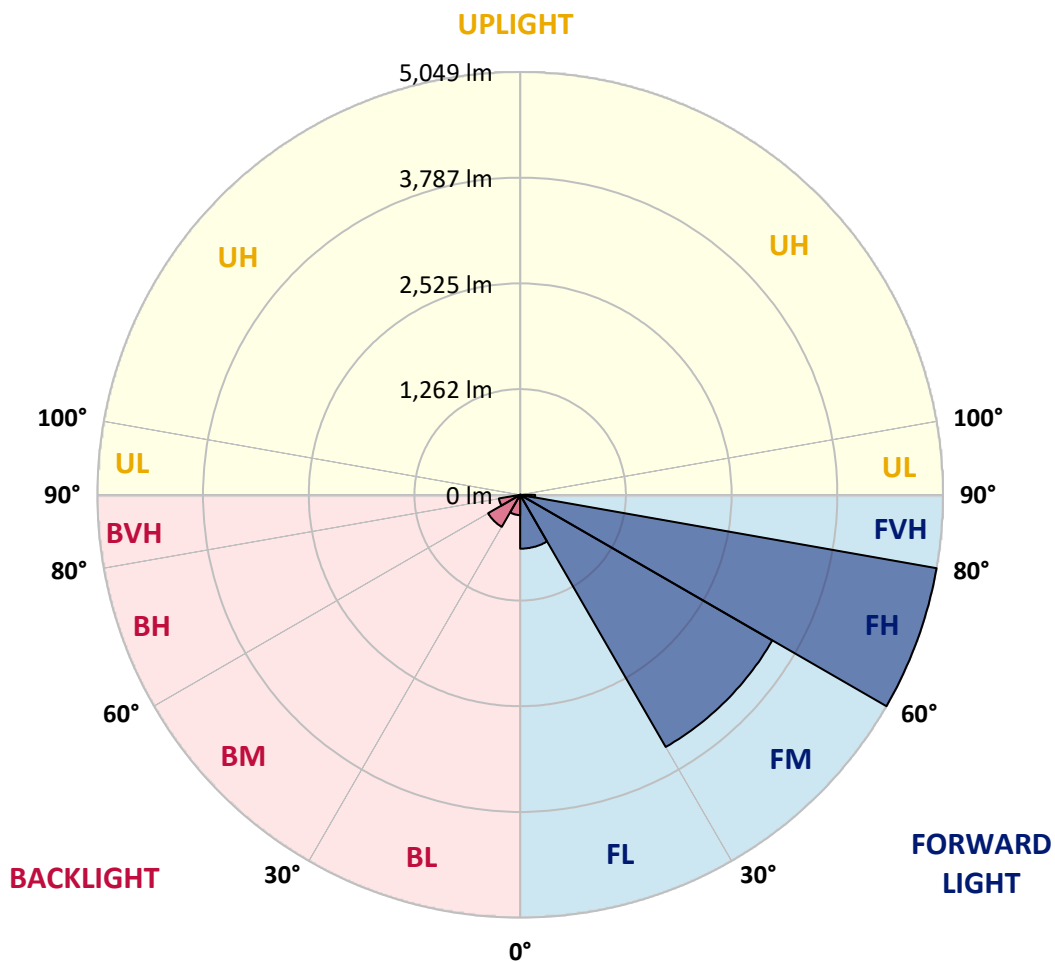
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	643.6	6.3			
FM	(30°-60°)	3476.6	33.8			
FH	(60°-80°)	5049.2	49.1			G3/7500
FVH	(80°-90°)	178.5	1.7			G2/225
BL	(0°-30°)	241.8	2.4	B1/500		
BM	(30°-60°)	441.0	4.3	B1/1000		
BH	(60°-80°)	257.8	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°	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5
2.5°	1195.4	1195.4	1193.0	1190.5	1178.4	1166.2	1163.8	1156.5	1134.5	1119.9	1105.3
5°	1295.2	1297.7	1292.8	1280.6	1253.8	1227.1	1224.6	1205.2	1163.8	1134.5	1102.9
7.5°	1390.2	1395.1	1382.9	1361.0	1329.3	1290.4	1287.9	1251.4	1197.9	1156.5	1110.2
10°	1470.5	1470.5	1453.5	1426.7	1392.6	1351.2	1346.4	1305.0	1244.1	1193.0	1132.1
12.5°	1558.2	1555.7	1531.4	1494.9	1455.9	1417.0	1414.5	1363.4	1305.0	1239.2	1163.8
15°	1638.5	1633.7	1602.0	1567.9	1526.5	1485.1	1482.7	1431.6	1370.7	1292.8	1210.0
17.5°	1682.3	1679.9	1650.7	1616.6	1582.5	1550.9	1548.4	1494.9	1429.1	1348.8	1256.3
20°	1689.7	1692.1	1667.7	1638.5	1619.0	1602.0	1602.0	1553.3	1482.7	1397.5	1305.0
22.5°	1692.1	1699.4	1682.3	1643.4	1638.5	1641.0	1645.8	1606.9	1533.8	1453.5	1356.1
25°	1709.1	1718.9	1706.7	1660.4	1655.6	1672.6	1677.5	1660.4	1594.7	1514.4	1414.5
27.5°	1743.2	1753.0	1743.2	1684.8	1677.5	1694.5	1699.4	1709.1	1660.4	1572.8	1475.4
30°	1811.4	1813.8	1791.9	1718.9	1704.3	1726.2	1733.5	1760.3	1721.3	1628.8	1533.8
32.5°	1930.7	1906.3	1840.6	1743.2	1731.0	1755.4	1762.7	1791.9	1777.3	1682.3	1594.7
35°	2174.1	2047.5	1896.6	1777.3	1765.1	1789.5	1799.2	1840.6	1847.9	1757.8	1670.2
37.5°	2171.7	2057.3	2028.1	1843.0	1826.0	1843.0	1855.2	1906.3	1935.6	1857.6	1779.7
40°	2325.1	2276.4	2276.4	1967.2	1911.2	1935.6	1947.7	1998.9	2050.0	1989.1	1908.8
42.5°	2807.2	2775.5	2741.4	2205.8	2030.5	2098.7	2106.0	2137.6	2198.5	2179.0	2084.1
45°	3345.2	3316.0	3184.5	2610.0	2235.0	2247.2	2264.2	2315.4	2403.0	2439.5	2327.5
47.5°	3766.4	3737.2	3625.2	3096.9	2554.0	2446.8	2446.8	2546.6	2683.0	2775.5	2668.4
50°	4104.8	4070.7	4002.6	3615.5	3077.4	2734.1	2719.5	2836.4	3038.5	3182.1	3109.1
52.5°	4433.5	4333.7	4292.3	4151.1	3669.0	3150.4	3111.5	3194.3	3474.3	3652.0	3591.1
55°	4652.6	4638.0	4594.2	4642.9	4289.9	3656.9	3622.8	3639.8	3990.4	4109.7	4034.2
57.5°	4857.1	4854.7	4952.1	5178.5	4966.7	4236.3	4182.7	4156.0	4489.5	4460.3	4526.0
60°	5110.3	5066.5	5292.9	5616.8	5587.5	4801.1	4740.3	4686.7	4871.7	4789.0	5115.2
62.5°	5122.5	5110.3	5570.5	6035.5	6203.5	5375.7	5305.1	5112.8	5205.3	5110.3	5677.6
65°	4657.5	4718.4	5687.4	6257.1	6719.6	5879.7	5794.5	5495.0	5502.3	5439.0	6339.8
67.5°	4552.8	4584.5	5366.0	6495.7	7092.2	6388.5	6308.2	5935.7	5848.0	5852.9	6731.8
70°	4292.3	4341.0	4966.7	6478.6	7386.7	7067.8	6987.5	6583.3	6371.5	6135.3	6429.9
72.5°	3279.5	3362.3	4185.2	5680.1	7306.4	7956.5	7934.5	7403.8	6580.9	5633.8	4864.4
75°	1110.2	1107.8	2198.5	3815.1	6563.8	8229.1	8273.0	7301.5	5740.9	3885.7	2415.2
77.5°	238.6	241.0	452.8	1546.0	4360.5	6607.7	6775.6	5507.2	3703.1	1731.0	552.7
80°	116.9	119.3	187.5	409.0	1743.2	3705.5	3968.5	2831.5	1368.3	345.7	92.5
82.5°	58.4	60.9	97.4	216.7	645.2	1317.1	1407.2	1042.0	392.0	194.8	46.3
85°	21.9	21.9	48.7	129.0	294.6	309.2	379.8	301.9	236.2	158.3	12.2
87.5°	4.9	4.9	26.8	63.3	131.5	97.4	97.4	92.5	143.6	107.1	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°	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5
2.5°	1098.0	1088.3	1071.2	1054.2	1042.0	1027.4	1020.1	1012.8	1010.4	1007.9	1012.8
5°	1085.9	1071.2	1039.6	1012.8	988.5	969.0	954.4	939.8	932.5	927.6	930.0
7.5°	1085.9	1063.9	1017.7	976.3	937.3	896.0	854.6	822.9	798.6	784.0	786.4
10°	1098.0	1068.8	1007.9	952.0	878.9	791.3	701.2	633.0	586.8	560.0	560.0
12.5°	1124.8	1085.9	1010.4	922.7	798.6	645.2	508.8	426.1	392.0	372.5	374.9
15°	1161.3	1115.1	1022.6	883.8	686.6	479.6	355.5	301.9	301.9	306.8	309.2
17.5°	1202.7	1151.6	1032.3	825.3	542.9	343.3	280.0	275.1	282.4	294.6	294.6
20°	1244.1	1188.1	1037.2	732.8	406.6	272.7	265.4	265.4	270.2	282.4	284.9
22.5°	1295.2	1234.4	1032.3	618.4	304.3	258.1	255.6	255.6	255.6	270.2	270.2
25°	1348.8	1287.9	1012.8	496.7	258.1	248.3	245.9	243.5	243.5	255.6	258.1
27.5°	1409.7	1343.9	966.6	379.8	243.5	238.6	236.2	231.3	231.3	241.0	241.0
30°	1470.5	1407.2	896.0	287.3	231.3	228.9	224.0	219.1	214.2	224.0	224.0
32.5°	1536.3	1473.0	803.4	228.9	214.2	214.2	211.8	204.5	199.6	204.5	206.9
35°	1623.9	1548.4	698.7	199.6	192.3	192.3	192.3	189.9	180.2	185.0	185.0
37.5°	1740.8	1653.1	577.0	185.0	175.3	170.4	170.4	170.4	163.1	165.6	165.6
40°	1889.3	1774.9	460.1	172.9	163.1	150.9	146.1	148.5	143.6	143.6	141.2
42.5°	2091.4	1906.3	345.7	163.1	153.4	136.3	126.6	124.2	119.3	116.9	116.9
45°	2381.1	2067.0	248.3	153.4	146.1	119.3	109.6	102.3	90.1	82.8	82.8
47.5°	2756.0	2249.6	185.0	143.6	138.8	104.7	92.5	77.9	60.9	56.0	56.0
50°	3213.7	2454.1	155.8	129.0	126.6	92.5	73.0	51.1	34.1	29.2	31.7
52.5°	3659.3	2646.5	138.8	114.4	112.0	80.3	53.6	26.8	14.6	14.6	14.6
55°	4034.2	2782.8	126.6	102.3	97.4	63.3	29.2	12.2	7.3	7.3	7.3
57.5°	4372.6	2860.7	114.4	90.1	77.9	43.8	12.2	4.9	4.9	2.4	2.4
60°	4681.8	2907.0	99.8	77.9	60.9	24.3	4.9	2.4	2.4	0.0	0.0
62.5°	4986.2	2941.1	85.2	63.3	46.3	9.7	2.4	2.4	0.0	0.0	0.0
65°	5217.5	2928.9	68.2	51.1	29.2	4.9	2.4	0.0	0.0	0.0	0.0
67.5°	5210.2	2763.3	51.1	39.0	14.6	2.4	0.0	0.0	0.0	0.0	0.0
70°	4659.9	2327.5	34.1	24.3	4.9	2.4	0.0	0.0	0.0	0.0	0.0
72.5°	3306.3	1492.4	21.9	14.6	2.4	0.0	0.0	0.0	0.0	0.0	0.0
75°	1455.9	452.8	12.2	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	284.9	104.7	7.3	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	68.2	12.2	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	29.2	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	7.3	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.9	2.4	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)