

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: P234853

Luminaire Tested: **ARCH-M-AF48-130-D-U-T4W-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234853
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-AF48-130-D-U-T4W-8027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 845mA 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: 9318 lumens
Efficiency: N/A
Efficacy: 71.1 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 - G2

Input Watts (W): 131
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

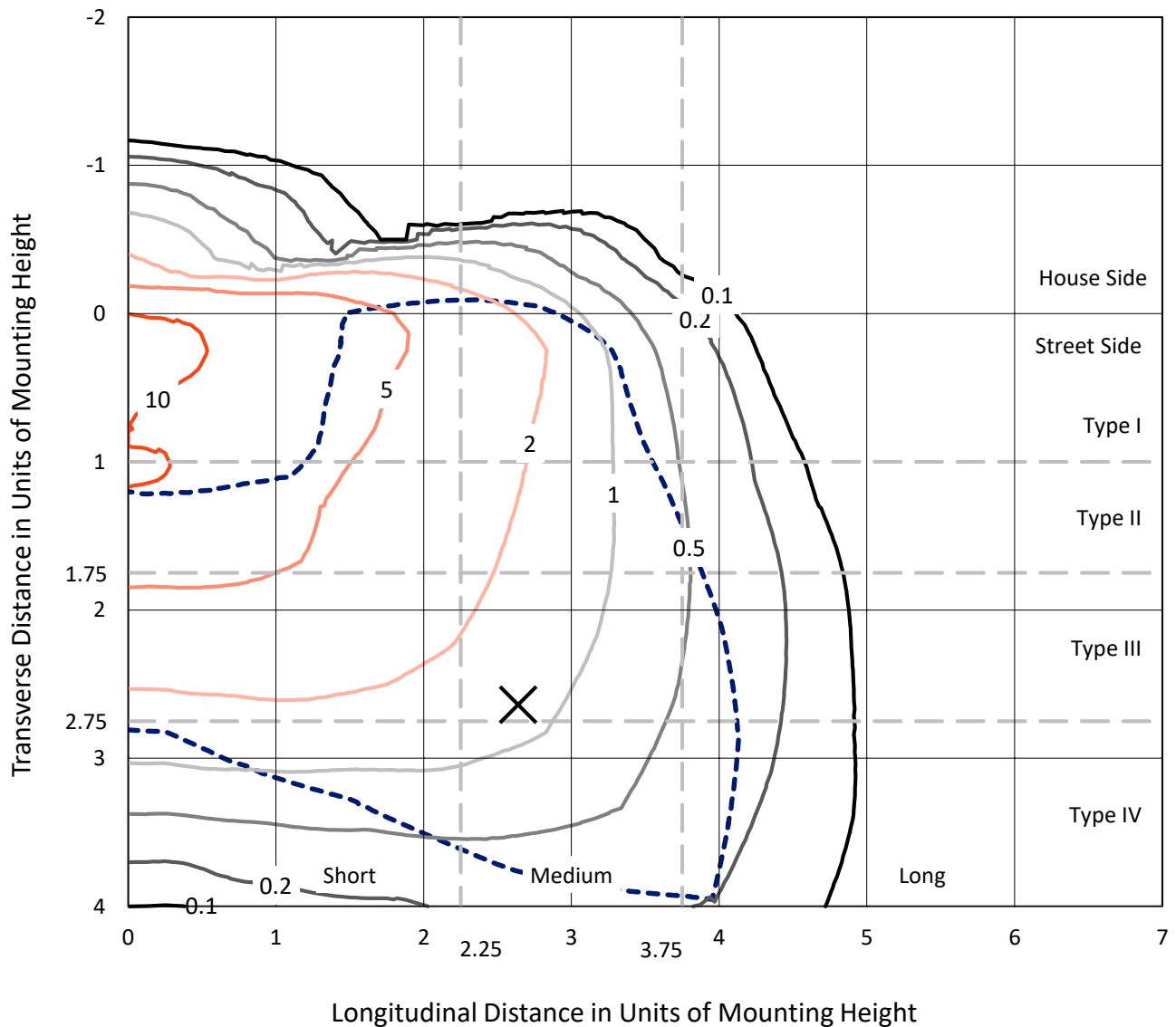


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

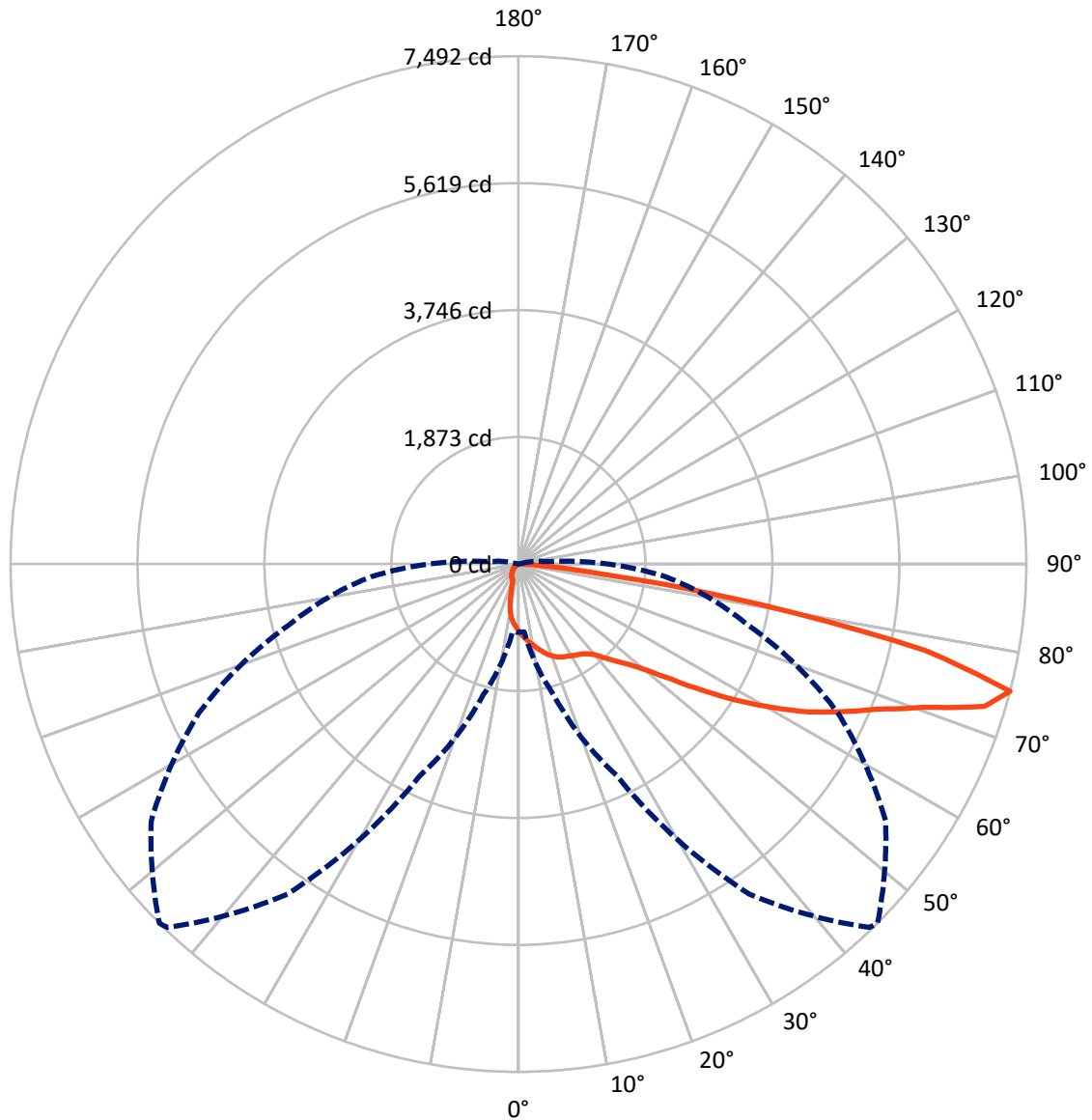


Based on 10 foot mounting height. Maximum calculated value = 13.3 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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

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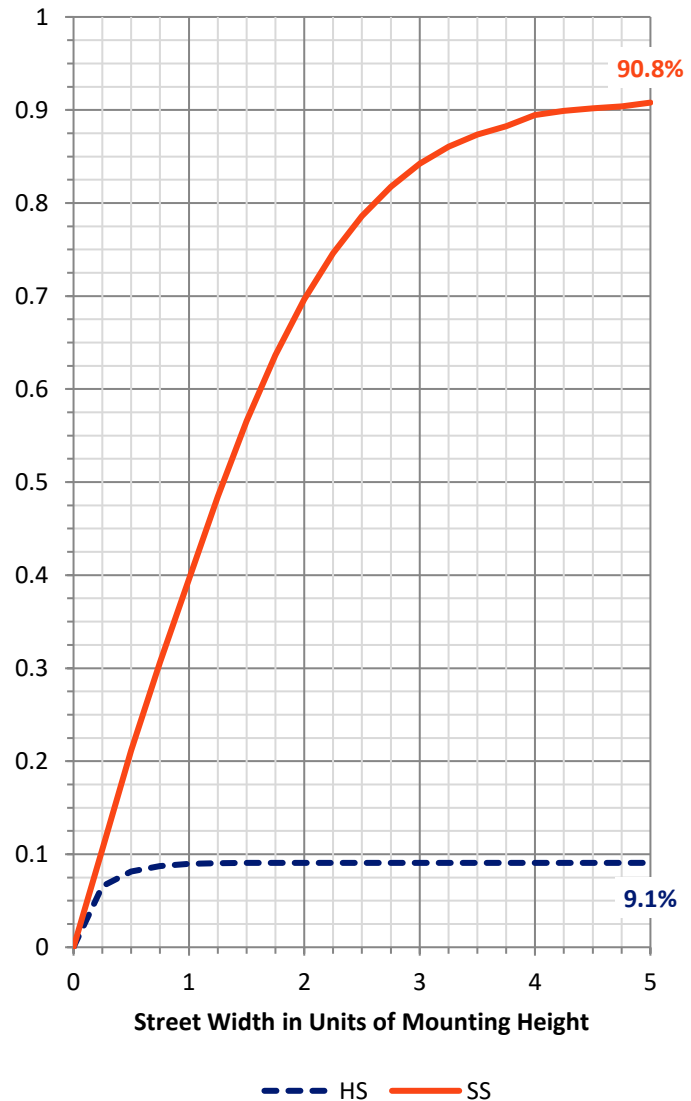
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	852.3	0.0	852.3
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	8465.7	0.0	8465.7
	% Fixture	90.9	0.0	90.9
Total	Lumens	9318.0	0.0	9318.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.1	1.0
10°-20°	266.5	2.9
20°-30°	441.3	4.7
30°-40°	638.7	6.9
40°-50°	1045.8	11.2
50°-60°	1863.4	20.0
60°-70°	2739.5	29.4
70°-80°	2066.7	22.2
80°-90°	162.1	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°	9318.0	100.0
0°-180°	9318.0	100.0



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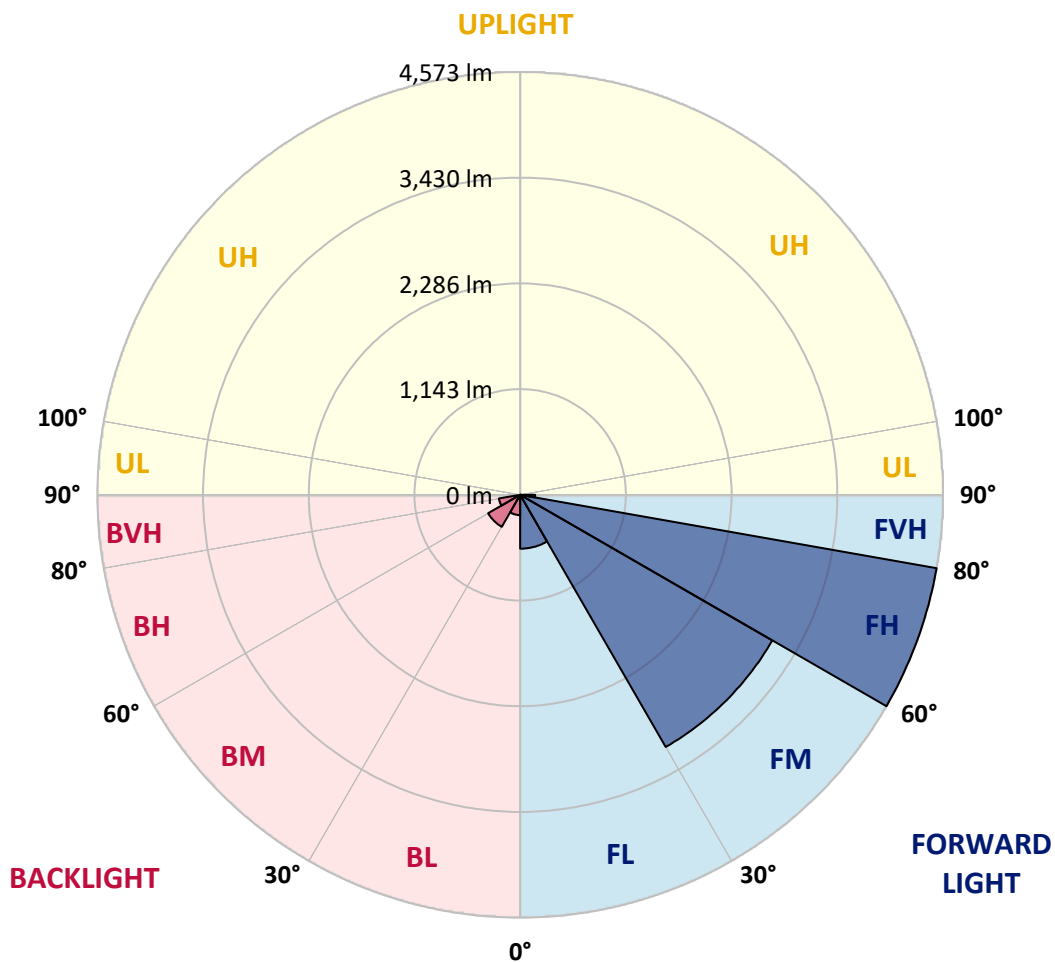
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	582.8	6.3			
FM	(30°-60°)	3148.5	33.8			
FH	(60°-80°)	4572.7	49.1			G2/5000
FVH	(80°-90°)	161.7	1.7			G2/225
BL	(0°-30°)	219.0	2.4	B1/500		
BM	(30°-60°)	399.4	4.3	B1/1000		
BH	(60°-80°)	233.4	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°	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6
2.5°	1082.6	1082.6	1080.4	1078.2	1067.2	1056.1	1053.9	1047.3	1027.5	1014.2	1001.0
5°	1173.0	1175.2	1170.8	1159.8	1135.5	1111.3	1109.1	1091.4	1053.9	1027.5	998.8
7.5°	1259.0	1263.4	1252.4	1232.5	1203.9	1168.6	1166.4	1133.3	1084.8	1047.3	1005.4
10°	1331.8	1331.8	1316.3	1292.1	1261.2	1223.7	1219.3	1181.8	1126.7	1080.4	1025.3
12.5°	1411.1	1408.9	1386.9	1353.8	1318.5	1283.2	1281.0	1234.7	1181.8	1122.3	1053.9
15°	1483.9	1479.5	1450.8	1419.9	1382.5	1345.0	1342.8	1296.5	1241.4	1170.8	1095.8
17.5°	1523.6	1521.4	1494.9	1464.0	1433.2	1404.5	1402.3	1353.8	1294.3	1221.5	1137.7
20°	1530.2	1532.4	1510.4	1483.9	1466.3	1450.8	1450.8	1406.7	1342.8	1265.6	1181.8
22.5°	1532.4	1539.0	1523.6	1488.3	1483.9	1486.1	1490.5	1455.2	1389.1	1316.3	1228.1
25°	1547.8	1556.7	1545.6	1503.7	1499.3	1514.8	1519.2	1503.7	1444.2	1371.4	1281.0
27.5°	1578.7	1587.5	1578.7	1525.8	1519.2	1534.6	1539.0	1547.8	1503.7	1424.4	1336.2
30°	1640.4	1642.6	1622.8	1556.7	1543.4	1563.3	1569.9	1594.1	1558.9	1475.1	1389.1
32.5°	1748.5	1726.4	1666.9	1578.7	1567.7	1589.7	1596.3	1622.8	1609.6	1523.6	1444.2
35°	1969.0	1854.3	1717.6	1609.6	1598.5	1620.6	1629.4	1666.9	1673.5	1591.9	1512.6
37.5°	1966.8	1863.1	1836.7	1669.1	1653.7	1669.1	1680.1	1726.4	1752.9	1682.3	1611.8
40°	2105.7	2061.6	2061.6	1781.6	1730.8	1752.9	1763.9	1810.2	1856.5	1801.4	1728.6
42.5°	2542.2	2513.6	2482.7	1997.6	1838.9	1900.6	1907.2	1935.9	1991.0	1973.4	1887.4
45°	3029.5	3003.1	2884.0	2363.6	2024.1	2035.1	2050.5	2096.9	2176.2	2209.3	2107.9
47.5°	3411.0	3384.5	3283.1	2804.6	2312.9	2215.9	2215.9	2306.3	2429.8	2513.6	2416.6
50°	3717.4	3686.6	3624.8	3274.3	2787.0	2476.1	2462.9	2568.7	2751.7	2881.8	2815.6
52.5°	4015.1	3924.7	3887.2	3759.3	3322.8	2853.1	2817.9	2892.8	3146.4	3307.3	3252.2
55°	4213.5	4200.3	4160.6	4204.7	3885.0	3311.7	3280.9	3296.3	3613.8	3721.9	3653.5
57.5°	4398.8	4396.6	4484.7	4689.8	4498.0	3836.5	3788.0	3763.7	4065.8	4039.4	4098.9
60°	4628.1	4588.4	4793.4	5086.7	5060.2	4348.0	4292.9	4244.4	4412.0	4337.0	4632.5
62.5°	4639.1	4628.1	5044.8	5465.9	5618.1	4868.4	4804.5	4630.3	4714.1	4628.1	5141.8
65°	4218.0	4273.1	5150.6	5666.6	6085.5	5324.8	5247.6	4976.4	4983.1	4925.7	5741.5
67.5°	4123.1	4151.8	4859.6	5882.6	6422.8	5785.6	5712.9	5375.5	5296.1	5300.6	6096.5
70°	3887.2	3931.3	4498.0	5867.2	6689.6	6400.8	6328.0	5962.0	5770.2	5556.3	5823.1
72.5°	2970.0	3045.0	3790.2	5144.0	6616.9	7205.6	7185.7	6705.1	5959.8	5102.1	4405.4
75°	1005.4	1003.2	1991.0	3455.1	5944.4	7452.5	7492.2	6612.5	5199.1	3519.0	2187.3
77.5°	216.1	218.3	410.1	1400.1	3949.0	5984.1	6136.2	4987.5	3353.6	1567.7	500.5
80°	105.8	108.0	169.8	370.4	1578.7	3355.8	3594.0	2564.3	1239.1	313.1	83.8
82.5°	52.9	55.1	88.2	196.2	584.3	1192.8	1274.4	943.7	355.0	176.4	41.9
85°	19.8	19.8	44.1	116.9	266.8	280.0	344.0	273.4	213.9	143.3	11.0
87.5°	4.4	4.4	24.3	57.3	119.1	88.2	88.2	83.8	130.1	97.0	4.4
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°	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6
2.5°	994.4	985.6	970.2	954.7	943.7	930.5	923.8	917.2	915.0	912.8	917.2
5°	983.4	970.2	941.5	917.2	895.2	877.5	864.3	851.1	844.5	840.1	842.3
7.5°	983.4	963.5	921.6	884.2	848.9	811.4	773.9	745.3	723.2	710.0	712.2
10°	994.4	967.9	912.8	862.1	796.0	716.6	635.0	573.3	531.4	507.1	507.1
12.5°	1018.7	983.4	915.0	835.7	723.2	584.3	460.8	385.9	355.0	337.3	339.6
15°	1051.7	1009.8	926.1	800.4	621.8	434.4	321.9	273.4	273.4	277.8	280.0
17.5°	1089.2	1042.9	934.9	747.5	491.7	310.9	253.6	249.2	255.8	266.8	266.8
20°	1126.7	1076.0	939.3	663.7	368.2	246.9	240.3	240.3	244.7	255.8	258.0
22.5°	1173.0	1117.9	934.9	560.0	275.6	233.7	231.5	231.5	231.5	244.7	244.7
25°	1221.5	1166.4	917.2	449.8	233.7	224.9	222.7	220.5	220.5	231.5	233.7
27.5°	1276.6	1217.1	875.3	344.0	220.5	216.1	213.9	209.5	209.5	218.3	218.3
30°	1331.8	1274.4	811.4	260.2	209.5	207.3	202.8	198.4	194.0	202.8	202.8
32.5°	1391.3	1334.0	727.6	207.3	194.0	194.0	191.8	185.2	180.8	185.2	187.4
35°	1470.7	1402.3	632.8	180.8	174.2	174.2	174.2	172.0	163.2	167.6	167.6
37.5°	1576.5	1497.1	522.6	167.6	158.8	154.3	154.3	154.3	147.7	149.9	149.9
40°	1711.0	1607.4	416.7	156.5	147.7	136.7	132.3	134.5	130.1	130.1	127.9
42.5°	1894.0	1726.4	313.1	147.7	138.9	123.5	114.7	112.4	108.0	105.8	105.8
45°	2156.4	1872.0	224.9	138.9	132.3	108.0	99.2	92.6	81.6	75.0	75.0
47.5°	2495.9	2037.3	167.6	130.1	125.7	94.8	83.8	70.6	55.1	50.7	50.7
50°	2910.5	2222.5	141.1	116.9	114.7	83.8	66.1	46.3	30.9	26.5	28.7
52.5°	3314.0	2396.7	125.7	103.6	101.4	72.8	48.5	24.3	13.2	13.2	13.2
55°	3653.5	2520.2	114.7	92.6	88.2	57.3	26.5	11.0	6.6	6.6	6.6
57.5°	3960.0	2590.7	103.6	81.6	70.6	39.7	11.0	4.4	4.4	2.2	2.2
60°	4240.0	2632.6	90.4	70.6	55.1	22.0	4.4	2.2	2.2	0.0	0.0
62.5°	4515.6	2663.5	77.2	57.3	41.9	8.8	2.2	2.2	0.0	0.0	0.0
65°	4725.1	2652.5	61.7	46.3	26.5	4.4	2.2	0.0	0.0	0.0	0.0
67.5°	4718.5	2502.6	46.3	35.3	13.2	2.2	0.0	0.0	0.0	0.0	0.0
70°	4220.2	2107.9	30.9	22.0	4.4	2.2	0.0	0.0	0.0	0.0	0.0
72.5°	2994.2	1351.6	19.8	13.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0
75°	1318.5	410.1	11.0	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	258.0	94.8	6.6	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	61.7	11.0	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	26.5	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	6.6	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.4	2.2	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)