

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: P231352

Luminaire Tested: **ARCH-M-AF48-80-D-U-T4W-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231352
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-AF48-80-D-U-T4W-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 535mA 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: 8448.5 lumens
Efficiency: N/A
Efficacy: 101.8 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): 83
Input Voltage (V): NR
Input Current (A_{in}): 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

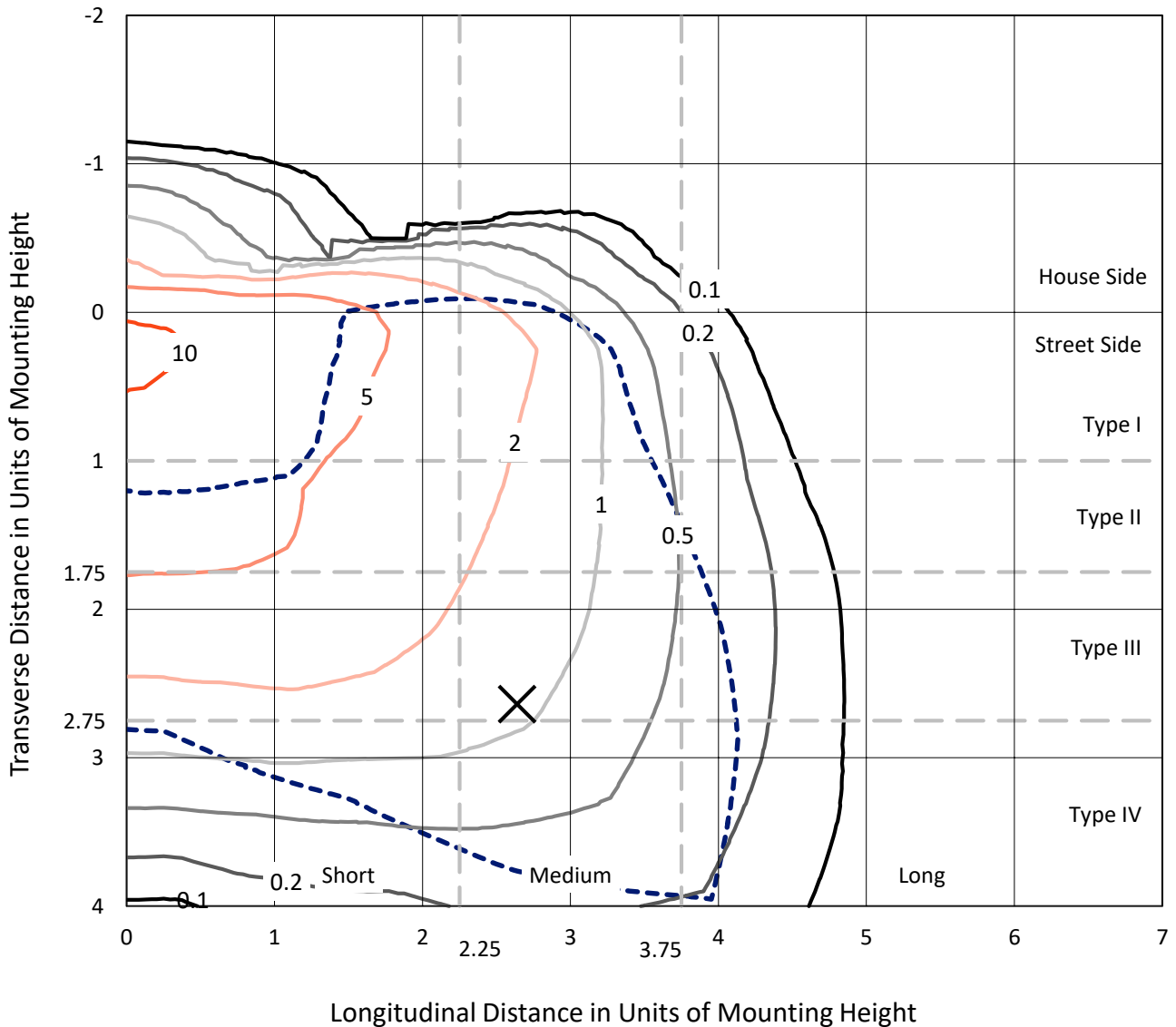


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

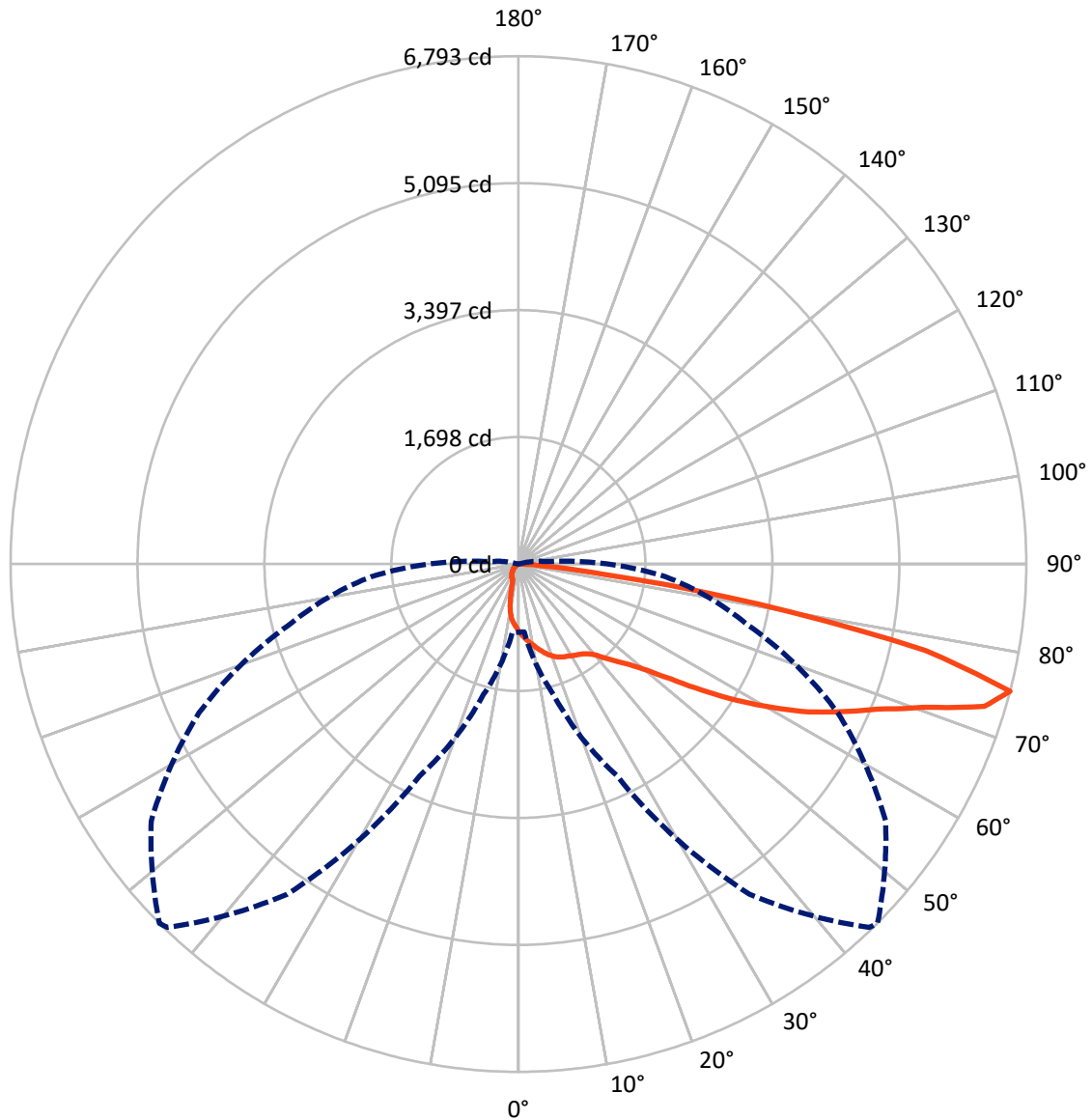


Based on 10 foot mounting height. Maximum calculated value = 12.1 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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



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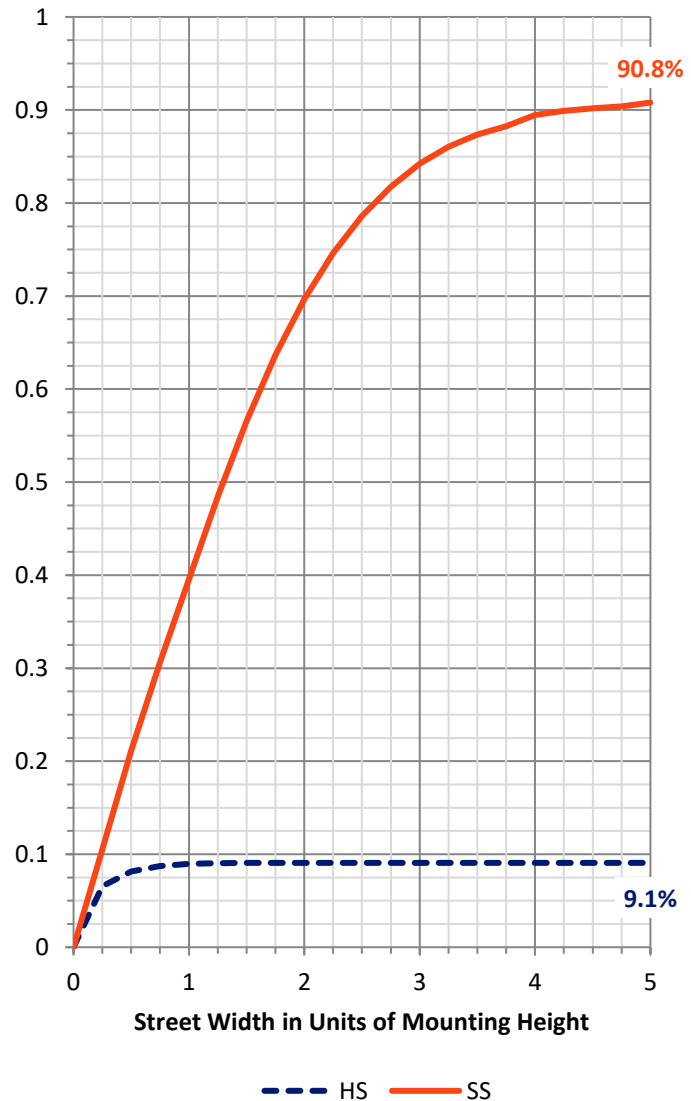
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	772.8	0.0	772.8
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	7675.8	0.0	7675.8
	% Fixture	90.9	0.0	90.9
Total	Lumens	8448.5	0.0	8448.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.3	1.0
10°-20°	241.6	2.9
20°-30°	400.1	4.7
30°-40°	579.1	6.9
40°-50°	948.2	11.2
50°-60°	1689.5	20.0
60°-70°	2483.8	29.4
70°-80°	1873.8	22.2
80°-90°	147.0	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°	8448.5	100.0
0°-180°	8448.5	100.0

Coefficient of Utilization



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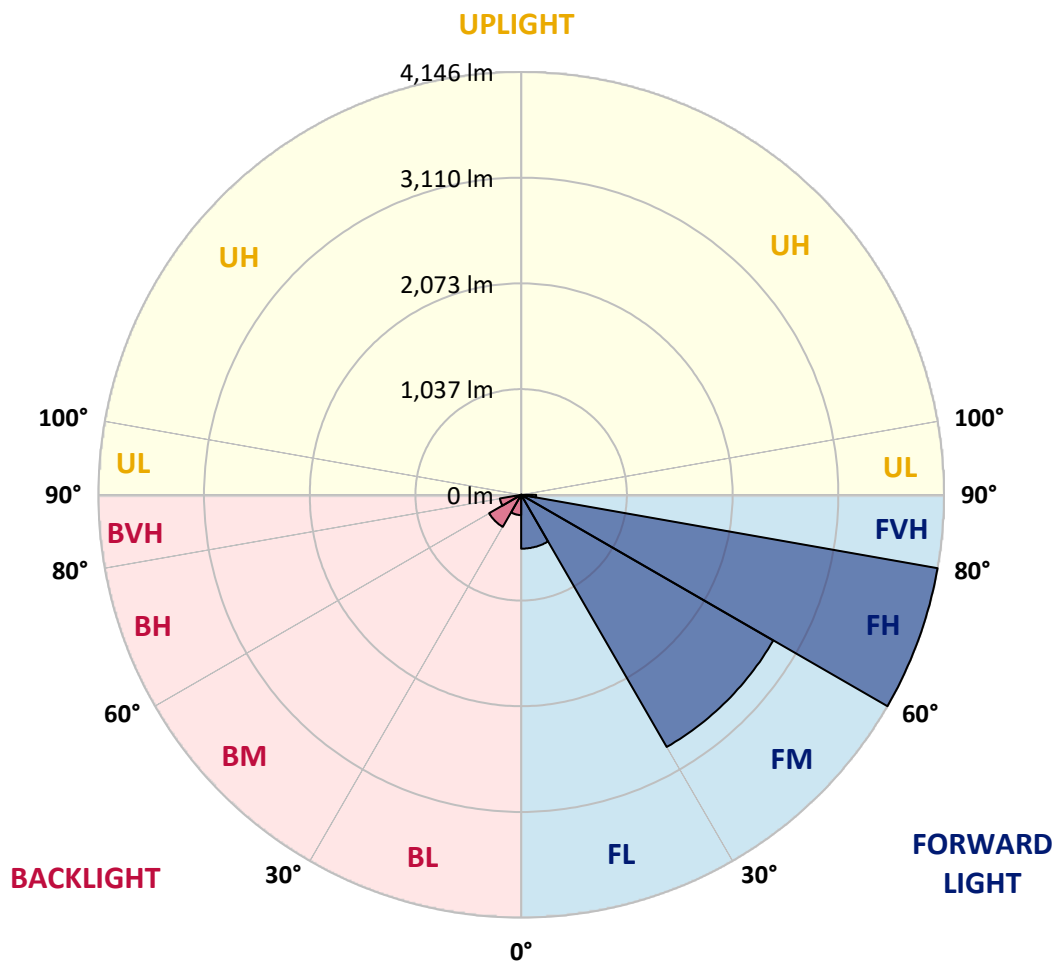
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	528.4	6.3			
FM	(30°-60°)	2854.7	33.8			
FH	(60°-80°)	4146.0	49.1			G2/5000
FVH	(80°-90°)	146.6	1.7			G2/225
BL	(0°-30°)	198.6	2.4	B1/500		
BM	(30°-60°)	362.1	4.3	B1/1000		
BH	(60°-80°)	211.7	2.5	B1/500		G1/500
BVH	(80°-90°)	0.4	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°	903.6	903.6	903.6	903.6	903.6	903.6	903.6	903.6	903.6	903.6	903.6
2.5°	981.6	981.6	979.6	977.6	967.6	957.6	955.6	949.6	931.6	919.6	907.7
5°	1063.6	1065.5	1061.5	1051.6	1029.6	1007.6	1005.6	989.6	955.6	931.6	905.6
7.5°	1141.5	1145.5	1135.5	1117.6	1091.5	1059.6	1057.5	1027.6	983.6	949.6	911.7
10°	1207.5	1207.5	1193.5	1171.5	1143.6	1109.5	1105.5	1071.5	1021.5	979.6	929.7
12.5°	1279.5	1277.5	1257.5	1227.4	1195.5	1163.5	1161.5	1119.5	1071.5	1017.5	955.6
15°	1345.4	1341.4	1315.4	1287.5	1253.4	1219.5	1217.5	1175.5	1125.6	1061.5	993.6
17.5°	1381.4	1379.4	1355.4	1327.5	1299.5	1273.5	1271.4	1227.4	1173.5	1107.5	1031.5
20°	1387.4	1389.4	1369.4	1345.4	1329.4	1315.4	1315.4	1275.4	1217.5	1147.5	1071.5
22.5°	1389.4	1395.4	1381.4	1349.5	1345.4	1347.4	1351.4	1319.4	1259.5	1193.5	1113.5
25°	1403.4	1411.4	1401.4	1363.4	1359.4	1373.4	1377.4	1363.4	1309.5	1243.5	1161.5
27.5°	1431.4	1439.4	1431.4	1383.4	1377.4	1391.4	1395.4	1403.4	1363.4	1291.5	1211.5
30°	1487.4	1489.4	1471.4	1411.4	1399.4	1417.4	1423.4	1445.4	1413.4	1337.4	1259.5
32.5°	1585.4	1565.3	1511.4	1431.4	1421.4	1441.4	1447.4	1471.4	1459.3	1381.4	1309.5
35°	1785.3	1681.3	1557.3	1459.3	1449.4	1469.4	1477.3	1511.4	1517.3	1443.4	1371.5
37.5°	1783.2	1689.3	1665.3	1513.4	1499.3	1513.4	1523.4	1565.3	1589.4	1525.3	1461.4
40°	1909.2	1869.2	1869.2	1615.3	1569.3	1589.4	1599.3	1641.3	1683.3	1633.3	1567.4
42.5°	2305.0	2279.0	2251.0	1811.2	1667.3	1723.3	1729.3	1755.3	1805.2	1789.2	1711.3
45°	2746.8	2722.9	2614.9	2143.1	1835.2	1845.2	1859.2	1901.2	1973.2	2003.1	1911.2
47.5°	3092.7	3068.8	2976.8	2543.0	2097.2	2009.2	2009.2	2091.1	2203.0	2279.0	2191.1
50°	3370.6	3342.6	3286.6	2968.7	2526.9	2245.1	2233.1	2329.1	2495.0	2612.9	2552.9
52.5°	3640.5	3558.5	3524.5	3408.6	3012.7	2586.9	2554.9	2622.8	2852.8	2998.8	2948.8
55°	3820.4	3808.3	3772.4	3812.4	3522.5	3002.8	2974.7	2988.8	3276.6	3374.6	3312.6
57.5°	3988.3	3986.3	4066.3	4252.2	4078.3	3478.5	3434.6	3412.6	3686.4	3662.5	3716.4
60°	4196.2	4160.2	4346.2	4612.1	4588.0	3942.4	3892.3	3848.3	4000.4	3932.3	4200.2
62.5°	4206.3	4196.2	4574.0	4955.9	5093.9	4414.1	4356.1	4198.2	4274.2	4196.2	4662.0
65°	3824.4	3874.3	4670.1	5137.9	5517.7	4827.9	4757.9	4512.1	4518.1	4466.1	5205.8
67.5°	3738.4	3764.5	4406.2	5333.8	5823.6	5245.8	5179.8	4874.0	4801.9	4805.9	5527.6
70°	3524.5	3564.5	4078.3	5319.8	6065.5	5803.5	5737.5	5405.7	5231.8	5037.8	5279.8
72.5°	2692.8	2760.8	3436.5	4664.0	5999.5	6533.3	6515.3	6079.4	5403.7	4626.1	3994.3
75°	911.7	909.6	1805.2	3132.7	5389.7	6757.1	6793.1	5995.5	4714.0	3190.7	1983.2
77.5°	195.9	197.9	371.8	1269.5	3580.5	5425.7	5563.6	4522.1	3040.7	1421.4	453.8
80°	96.0	98.0	154.0	335.8	1431.4	3042.7	3258.6	2325.1	1123.5	283.9	76.0
82.5°	48.0	50.0	80.0	177.9	529.8	1081.6	1155.5	855.6	321.8	159.9	38.0
85°	18.0	18.0	40.0	106.0	241.9	253.9	311.9	247.9	194.0	129.9	10.0
87.5°	4.0	4.0	22.0	52.0	107.9	80.0	80.0	76.0	117.9	88.0	4.0
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°	903.6	903.6	903.6	903.6	903.6	903.6	903.6	903.6	903.6	903.6	903.6
2.5°	901.6	893.6	879.6	865.6	855.6	843.6	837.7	831.7	829.6	827.7	831.7
5°	891.6	879.6	853.7	831.7	811.6	795.7	783.7	771.7	765.7	761.7	763.6
7.5°	891.6	873.6	835.6	801.7	769.7	735.7	701.7	675.8	655.7	643.7	645.7
10°	901.6	877.6	827.7	781.6	721.7	649.7	575.7	519.8	481.8	459.8	459.8
12.5°	923.6	891.6	829.6	757.7	655.7	529.8	417.8	349.8	321.8	305.9	307.9
15°	953.6	915.6	839.6	725.7	563.7	393.8	291.8	247.9	247.9	251.9	253.9
17.5°	987.6	945.6	847.6	677.7	445.8	281.9	229.9	225.9	231.9	241.9	241.9
20°	1021.5	975.6	851.6	601.7	333.9	223.9	217.9	217.9	221.9	231.9	233.9
22.5°	1063.6	1013.5	847.6	507.8	249.9	212.0	209.9	209.9	209.9	221.9	221.9
25°	1107.5	1057.5	831.7	407.9	212.0	203.9	201.9	199.9	199.9	209.9	212.0
27.5°	1157.5	1103.6	793.7	311.9	199.9	195.9	194.0	190.0	190.0	197.9	197.9
30°	1207.5	1155.5	735.7	235.9	190.0	187.9	183.9	179.9	175.9	183.9	183.9
32.5°	1261.5	1209.5	659.7	187.9	175.9	175.9	173.9	168.0	164.0	168.0	169.9
35°	1333.4	1271.4	573.8	164.0	157.9	157.9	157.9	155.9	147.9	151.9	151.9
37.5°	1429.4	1357.5	473.8	151.9	143.9	139.9	139.9	139.9	133.9	136.0	136.0
40°	1551.3	1457.4	377.9	142.0	133.9	124.0	120.0	121.9	117.9	117.9	115.9
42.5°	1717.2	1565.3	283.9	133.9	125.9	111.9	103.9	102.0	98.0	96.0	96.0
45°	1955.2	1697.3	203.9	125.9	120.0	98.0	89.9	84.0	74.0	67.9	67.9
47.5°	2263.1	1847.2	151.9	117.9	114.0	85.9	76.0	63.9	50.0	45.9	45.9
50°	2638.9	2015.1	128.0	106.0	103.9	76.0	59.9	41.9	28.0	24.0	26.0
52.5°	3004.7	2173.1	114.0	94.0	92.0	66.0	44.0	22.0	12.0	12.0	12.0
55°	3312.6	2285.1	103.9	84.0	80.0	52.0	24.0	10.0	6.0	6.0	6.0
57.5°	3590.5	2349.0	94.0	74.0	63.9	36.0	10.0	4.0	4.0	2.0	2.0
60°	3844.4	2387.0	81.9	63.9	50.0	19.9	4.0	2.0	2.0	0.0	0.0
62.5°	4094.3	2415.0	70.0	52.0	38.0	8.0	2.0	2.0	0.0	0.0	0.0
65°	4284.2	2405.0	56.0	41.9	24.0	4.0	2.0	0.0	0.0	0.0	0.0
67.5°	4278.2	2269.0	41.9	32.0	12.0	2.0	0.0	0.0	0.0	0.0	0.0
70°	3826.3	1911.2	28.0	19.9	4.0	2.0	0.0	0.0	0.0	0.0	0.0
72.5°	2714.8	1225.5	18.0	12.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	1195.5	371.8	10.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	233.9	85.9	6.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	56.0	10.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	24.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	6.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.0	2.0	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)