

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: P231353

Luminaire Tested: **ARCH-M-AF48-90-D-U-T4W-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231353
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-AF48-90-D-U-T4W-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 600mA 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: 9347.7 lumens
Efficiency: N/A
Efficacy: 101.6 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

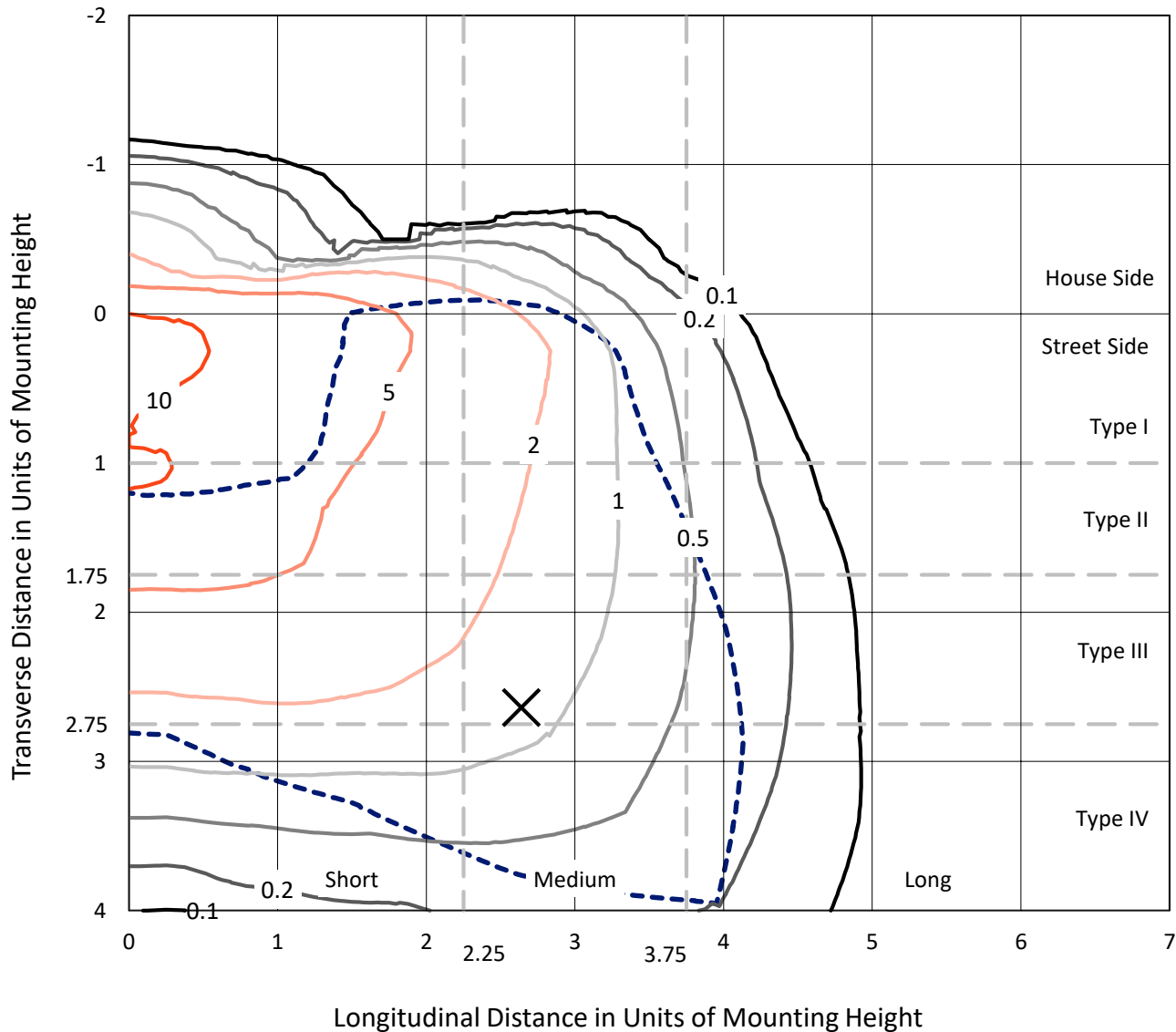
Input Watts (W): 92
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

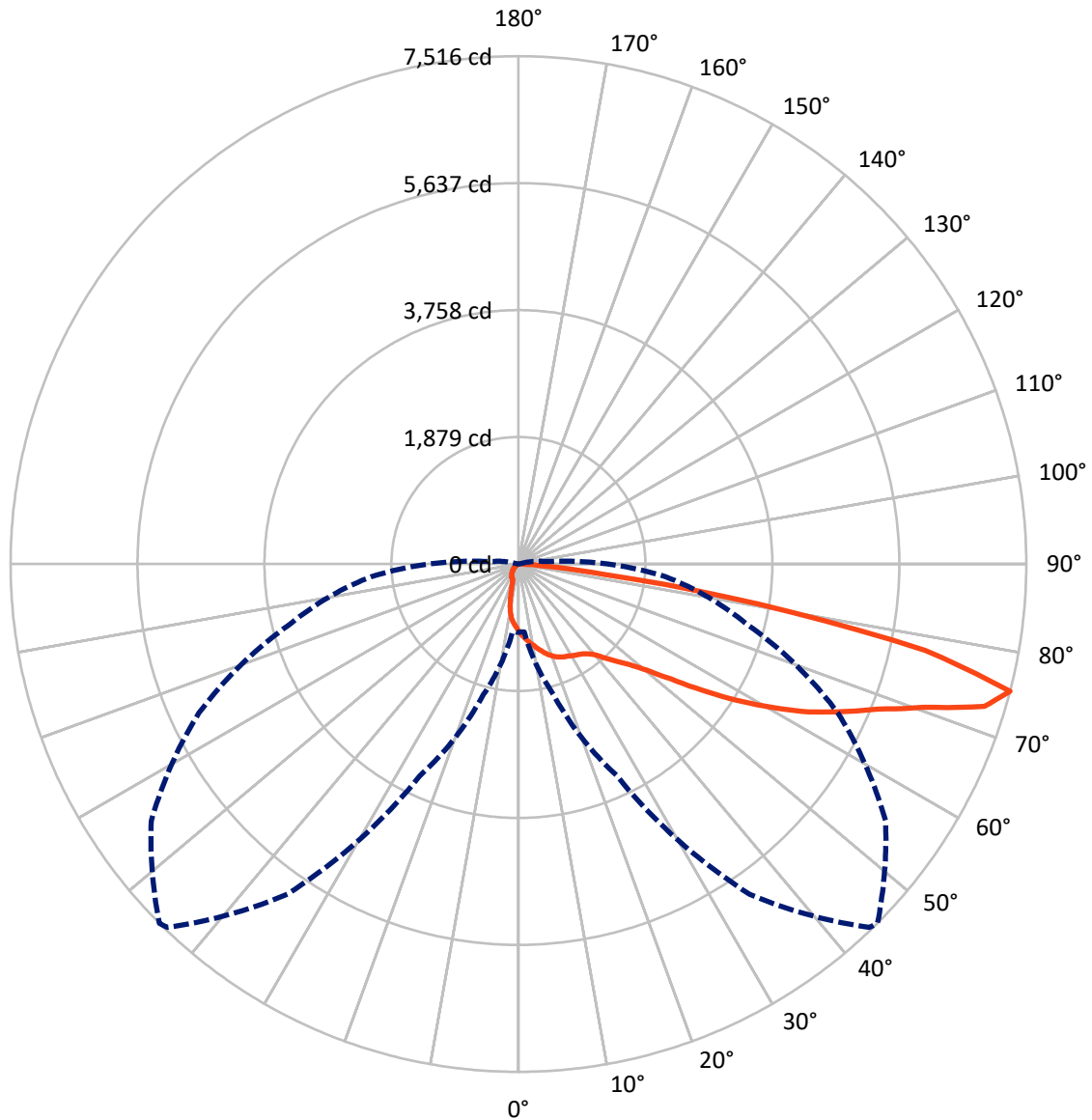


Based on 10 foot mounting height. Maximum calculated value = 13.3 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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



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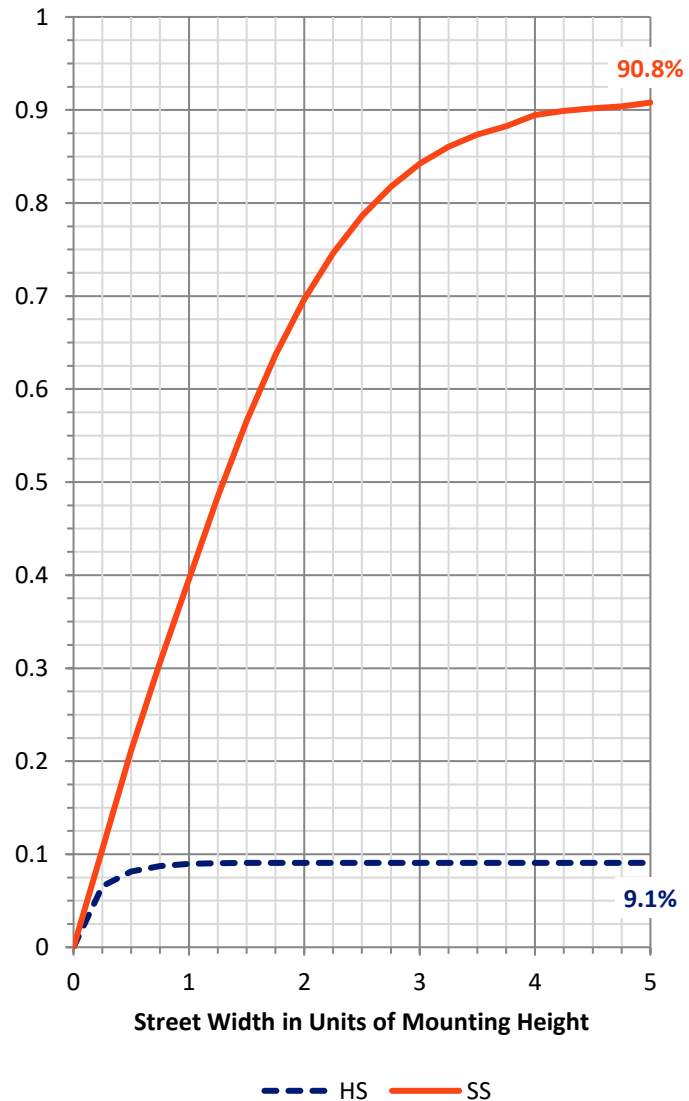
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	855.0	0.0	855.0
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	8492.7	0.0	8492.7
	% Fixture	90.9	0.0	90.9
Total	Lumens	9347.7	0.0	9347.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.4	1.0
10°-20°	267.3	2.9
20°-30°	442.7	4.7
30°-40°	640.7	6.9
40°-50°	1049.1	11.2
50°-60°	1869.3	20.0
60°-70°	2748.2	29.4
70°-80°	2073.3	22.2
80°-90°	162.7	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°	9347.7	100.0
0°-180°	9347.7	100.0

Coefficient of Utilization



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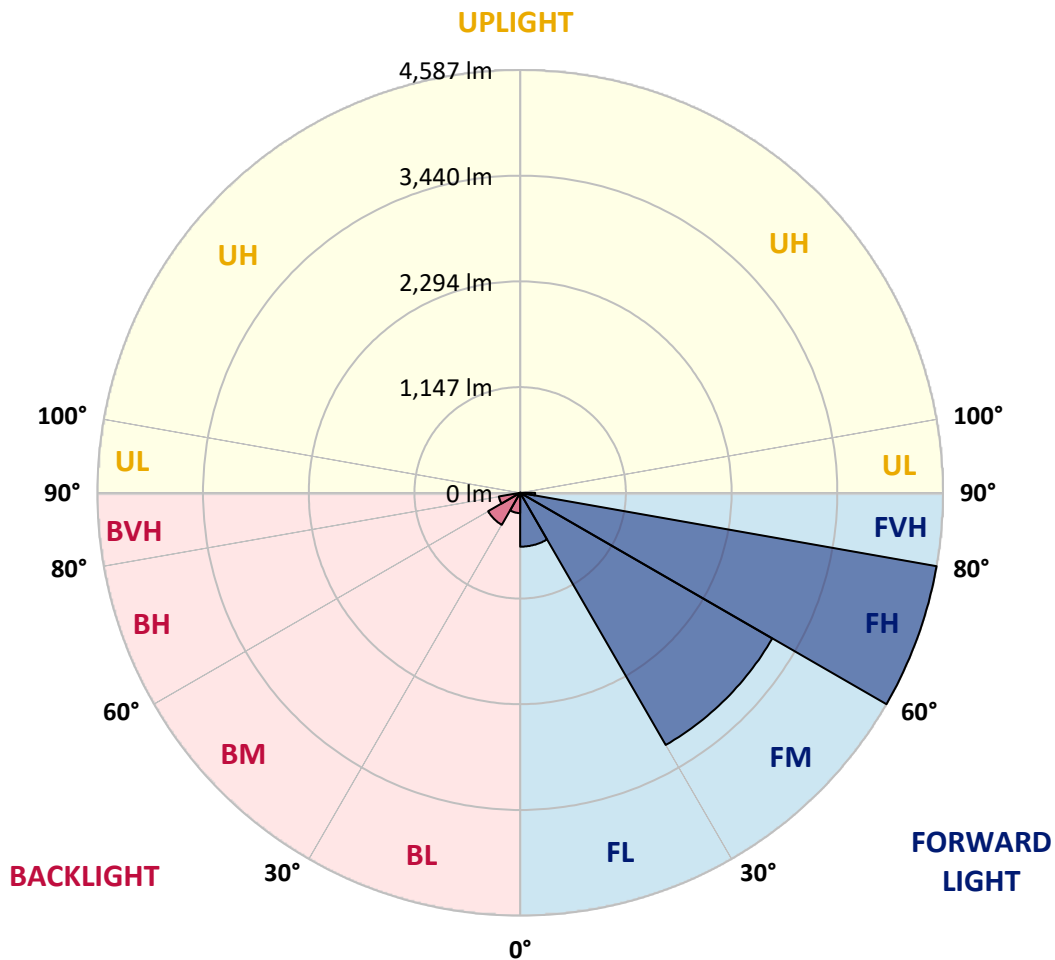
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	584.7	6.3			
FM	(30°-60°)	3158.5	33.8			
FH	(60°-80°)	4587.3	49.1			G2/5000
FVH	(80°-90°)	162.2	1.7			G2/225
BL	(0°-30°)	219.7	2.4	B1/500		
BM	(30°-60°)	400.7	4.3	B1/1000		
BH	(60°-80°)	234.2	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°	999.8	999.8	999.8	999.8	999.8	999.8	999.8	999.8	999.8	999.8	999.8
2.5°	1086.1	1086.1	1083.8	1081.7	1070.6	1059.5	1057.3	1050.7	1030.7	1017.5	1004.2
5°	1176.7	1179.0	1174.6	1163.5	1139.2	1114.8	1112.6	1094.9	1057.3	1030.7	1002.0
7.5°	1263.0	1267.4	1256.4	1236.4	1207.7	1172.3	1170.2	1136.9	1088.3	1050.7	1008.6
10°	1336.0	1336.0	1320.5	1296.2	1265.2	1227.6	1223.2	1185.6	1130.3	1083.8	1028.6
12.5°	1415.7	1413.4	1391.3	1358.2	1322.8	1287.4	1285.1	1238.7	1185.6	1125.9	1057.3
15°	1488.6	1484.2	1455.5	1424.5	1386.9	1349.3	1347.0	1300.6	1245.3	1174.6	1099.4
17.5°	1528.4	1526.2	1499.6	1468.8	1437.8	1409.0	1406.8	1358.2	1298.4	1225.4	1141.3
20°	1535.0	1537.3	1515.2	1488.6	1470.9	1455.5	1455.5	1411.2	1347.0	1269.7	1185.6
22.5°	1537.3	1543.9	1528.4	1493.1	1488.6	1490.8	1495.2	1459.9	1393.5	1320.5	1232.0
25°	1552.7	1561.6	1550.6	1508.5	1504.1	1519.6	1524.0	1508.5	1448.8	1375.8	1285.1
27.5°	1583.7	1592.6	1583.7	1530.6	1524.0	1539.5	1543.9	1552.7	1508.5	1428.9	1340.5
30°	1645.6	1647.9	1628.0	1561.6	1548.3	1568.3	1574.9	1599.2	1563.8	1479.8	1393.5
32.5°	1754.1	1732.0	1672.2	1583.7	1572.7	1594.8	1601.4	1628.0	1614.7	1528.4	1448.8
35°	1975.2	1860.2	1723.1	1614.7	1603.7	1625.8	1634.6	1672.2	1678.9	1597.0	1517.3
37.5°	1973.1	1869.0	1842.5	1674.5	1658.9	1674.5	1685.5	1732.0	1758.5	1687.7	1616.9
40°	2112.4	2068.1	2068.1	1787.2	1736.4	1758.5	1769.5	1815.9	1862.5	1807.1	1734.1
42.5°	2550.3	2521.6	2490.6	2004.0	1844.8	1906.7	1913.3	1942.1	1997.4	1979.7	1893.4
45°	3039.2	3012.6	2893.2	2371.2	2030.6	2041.6	2057.1	2103.5	2183.2	2216.3	2114.6
47.5°	3421.9	3395.3	3293.6	2813.5	2320.4	2223.0	2223.0	2313.7	2437.6	2521.6	2424.3
50°	3729.3	3698.4	3636.4	3284.7	2795.8	2484.0	2470.7	2576.9	2760.4	2891.0	2824.7
52.5°	4027.9	3937.2	3899.6	3771.3	3333.4	2862.2	2826.8	2902.0	3156.4	3317.8	3262.6
55°	4227.0	4213.7	4173.9	4218.1	3897.4	3322.3	3291.3	3306.8	3625.3	3733.8	3665.1
57.5°	4412.8	4410.6	4499.0	4704.8	4512.3	3848.8	3800.1	3775.7	4078.8	4052.2	4112.0
60°	4642.9	4603.0	4808.7	5102.9	5076.4	4362.0	4306.6	4257.9	4426.1	4350.8	4647.3
62.5°	4653.9	4642.9	5060.8	5483.3	5635.9	4884.0	4819.7	4645.0	4729.1	4642.9	5158.2
65°	4231.4	4286.7	5167.0	5684.6	6104.9	5341.7	5264.4	4992.3	4999.0	4941.5	5759.8
67.5°	4136.3	4165.0	4875.1	5901.4	6443.4	5804.1	5731.1	5392.7	5313.0	5317.5	6116.0
70°	3899.6	3943.9	4512.3	5886.0	6711.0	6421.3	6348.2	5981.1	5788.6	5574.1	5841.7
72.5°	2979.4	3054.6	3802.3	5160.4	6638.0	7228.6	7208.6	6726.4	5978.8	5118.4	4419.5
75°	1008.6	1006.4	1997.4	3466.1	5963.4	7476.3	7516.1	6633.5	5215.7	3530.2	2194.2
77.5°	216.8	219.0	411.4	1404.6	3961.6	6003.2	6155.8	5003.4	3364.4	1572.7	502.1
80°	106.2	108.4	170.3	371.6	1583.7	3366.5	3605.4	2572.5	1243.1	314.0	84.1
82.5°	53.1	55.3	88.5	196.8	586.2	1196.6	1278.5	946.7	356.1	177.0	42.0
85°	19.9	19.9	44.2	117.2	267.6	280.9	345.0	274.3	214.5	143.7	11.0
87.5°	4.4	4.4	24.3	57.5	119.5	88.5	88.5	84.1	130.5	97.3	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°	999.8	999.8	999.8	999.8	999.8	999.8	999.8	999.8	999.8	999.8	999.8
2.5°	997.6	988.7	973.2	957.8	946.7	933.4	926.8	920.1	918.0	915.7	920.1
5°	986.5	973.2	944.5	920.1	898.0	880.4	867.1	853.8	847.2	842.7	845.0
7.5°	986.5	966.6	924.5	887.0	851.6	814.0	776.4	747.7	725.5	712.3	714.4
10°	997.6	971.0	915.7	864.9	798.5	718.8	637.0	575.1	533.1	508.7	508.7
12.5°	1021.9	986.5	918.0	838.3	725.5	586.2	462.3	387.1	356.1	338.4	340.6
15°	1055.1	1013.0	929.0	802.9	623.8	435.8	322.9	274.3	274.3	278.7	280.9
17.5°	1092.7	1046.3	937.8	749.8	493.3	311.9	254.4	249.9	256.6	267.6	267.6
20°	1130.3	1079.4	942.2	665.8	369.4	247.8	241.1	241.1	245.5	256.6	258.8
22.5°	1176.7	1121.5	937.8	561.8	276.5	234.5	232.2	232.2	232.2	245.5	245.5
25°	1225.4	1170.2	920.1	451.2	234.5	225.7	223.4	221.2	221.2	232.2	234.5
27.5°	1280.7	1221.0	878.1	345.0	221.2	216.8	214.5	210.1	210.1	219.0	219.0
30°	1336.0	1278.5	814.0	261.1	210.1	208.0	203.5	199.1	194.7	203.5	203.5
32.5°	1395.7	1338.2	730.0	208.0	194.7	194.7	192.4	185.8	181.4	185.8	188.0
35°	1475.4	1406.8	634.8	181.4	174.7	174.7	174.7	172.6	163.7	168.1	168.1
37.5°	1581.5	1501.9	524.3	168.1	159.3	154.9	154.9	154.9	148.2	150.4	150.4
40°	1716.4	1612.5	418.1	157.0	148.2	137.2	132.7	134.9	130.5	130.5	128.3
42.5°	1900.0	1732.0	314.0	148.2	139.3	123.9	115.0	112.8	108.4	106.2	106.2
45°	2163.2	1877.9	225.7	139.3	132.7	108.4	99.5	92.9	81.8	75.2	75.2
47.5°	2503.9	2043.9	168.1	130.5	126.1	95.1	84.1	70.8	55.3	50.8	50.8
50°	2919.7	2229.6	141.6	117.2	115.0	84.1	66.4	46.4	31.0	26.5	28.7
52.5°	3324.5	2404.3	126.1	103.9	101.8	73.0	48.7	24.3	13.3	13.3	13.3
55°	3665.1	2528.2	115.0	92.9	88.5	57.5	26.5	11.0	6.6	6.6	6.6
57.5°	3972.6	2599.0	103.9	81.8	70.8	39.8	11.0	4.4	4.4	2.3	2.3
60°	4253.5	2641.1	90.7	70.8	55.3	22.1	4.4	2.3	2.3	0.0	0.0
62.5°	4530.0	2672.0	77.4	57.5	42.0	8.8	2.3	2.3	0.0	0.0	0.0
65°	4740.1	2660.9	61.9	46.4	26.5	4.4	2.3	0.0	0.0	0.0	0.0
67.5°	4733.5	2510.5	46.4	35.4	13.3	2.3	0.0	0.0	0.0	0.0	0.0
70°	4233.6	2114.6	31.0	22.1	4.4	2.3	0.0	0.0	0.0	0.0	0.0
72.5°	3003.8	1355.9	19.9	13.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0
75°	1322.8	411.4	11.0	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	258.8	95.1	6.6	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	61.9	11.0	2.3	2.3	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	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.4	2.3	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)