

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: P231222

Luminaire Tested: **ARCH-M-AF48-80-D-U-T3-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231222
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29624)
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-T3-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 535mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8551.8 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 83
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

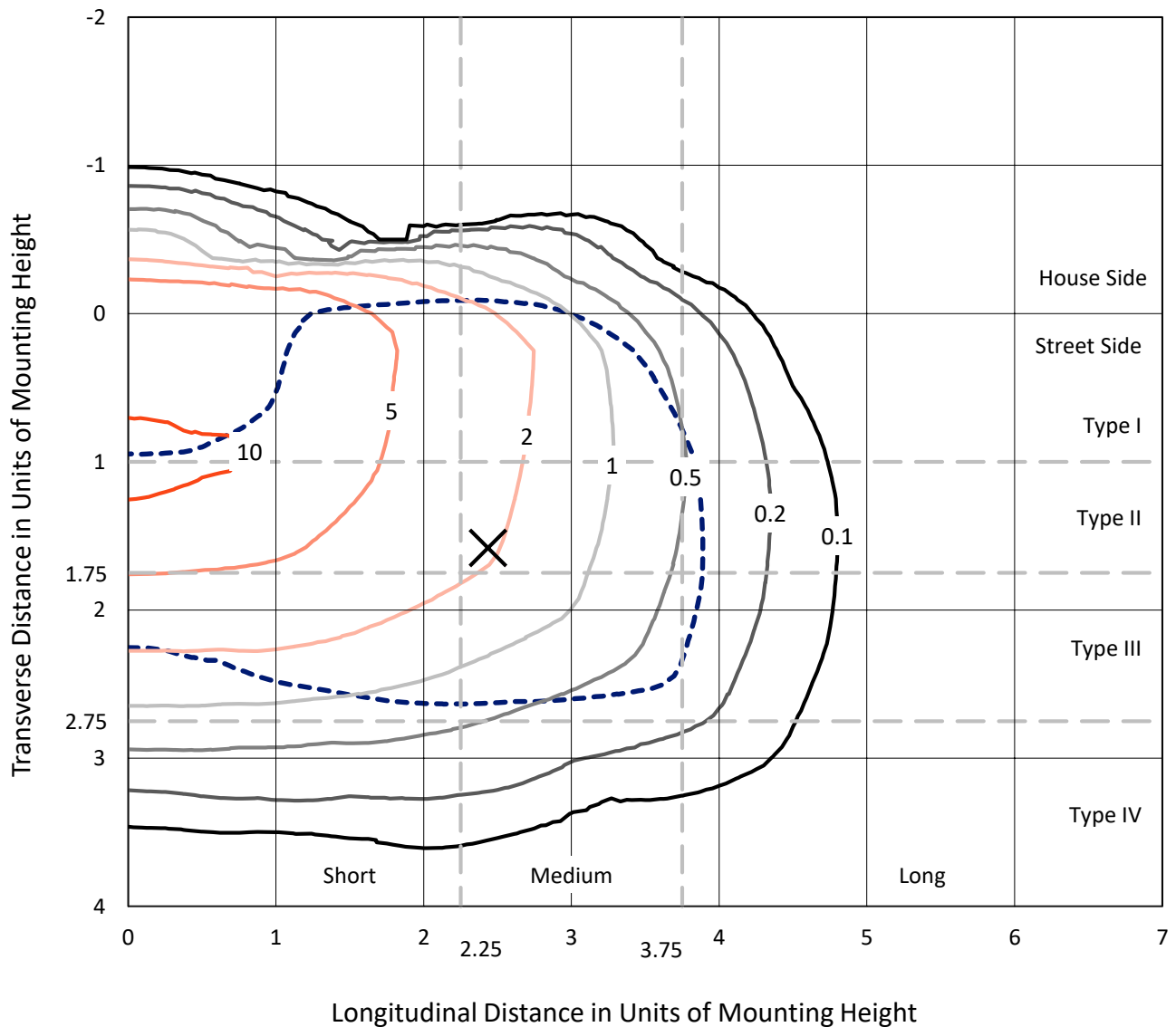


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

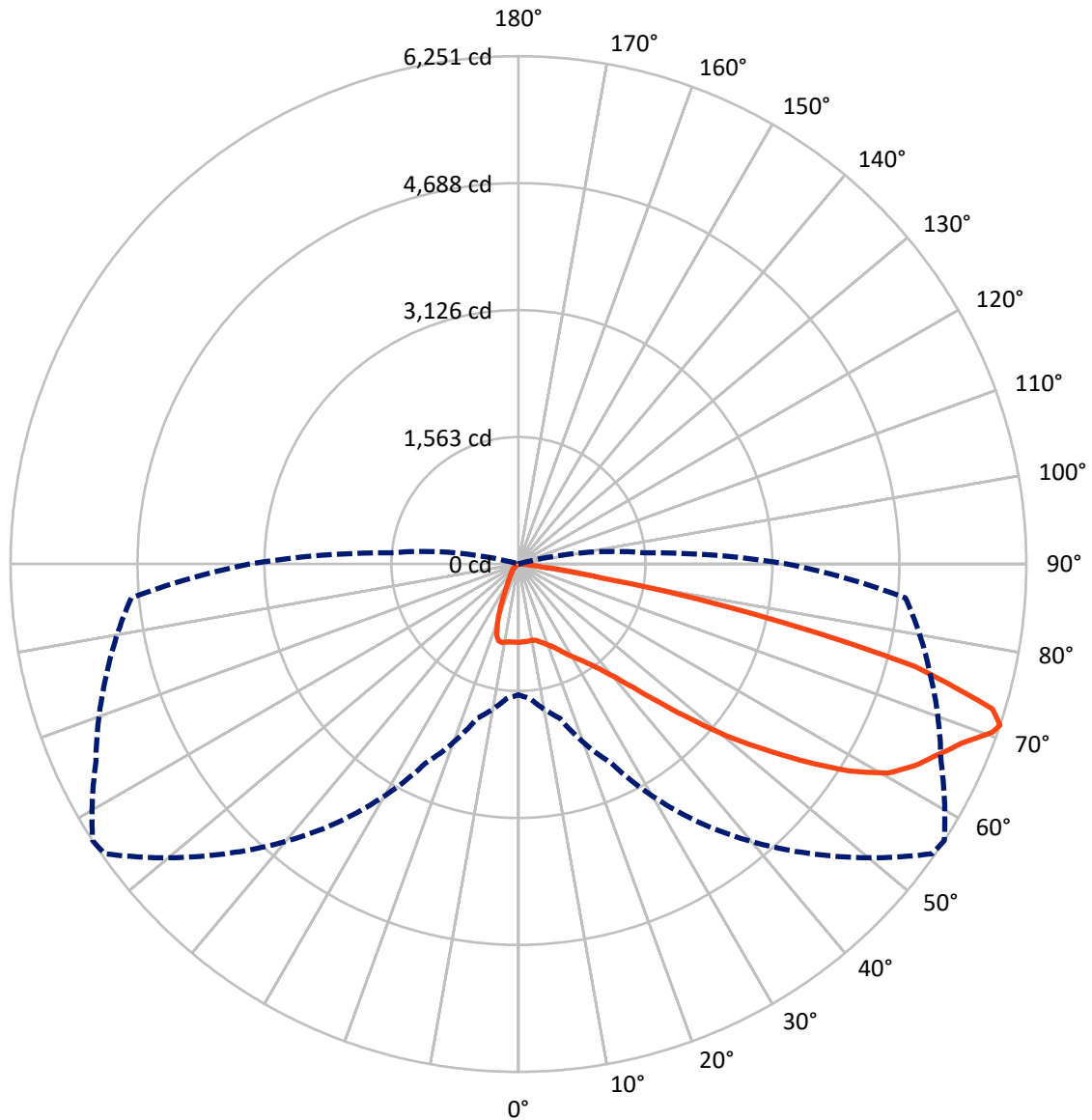


Based on 10 foot mounting height. Maximum calculated value = 12 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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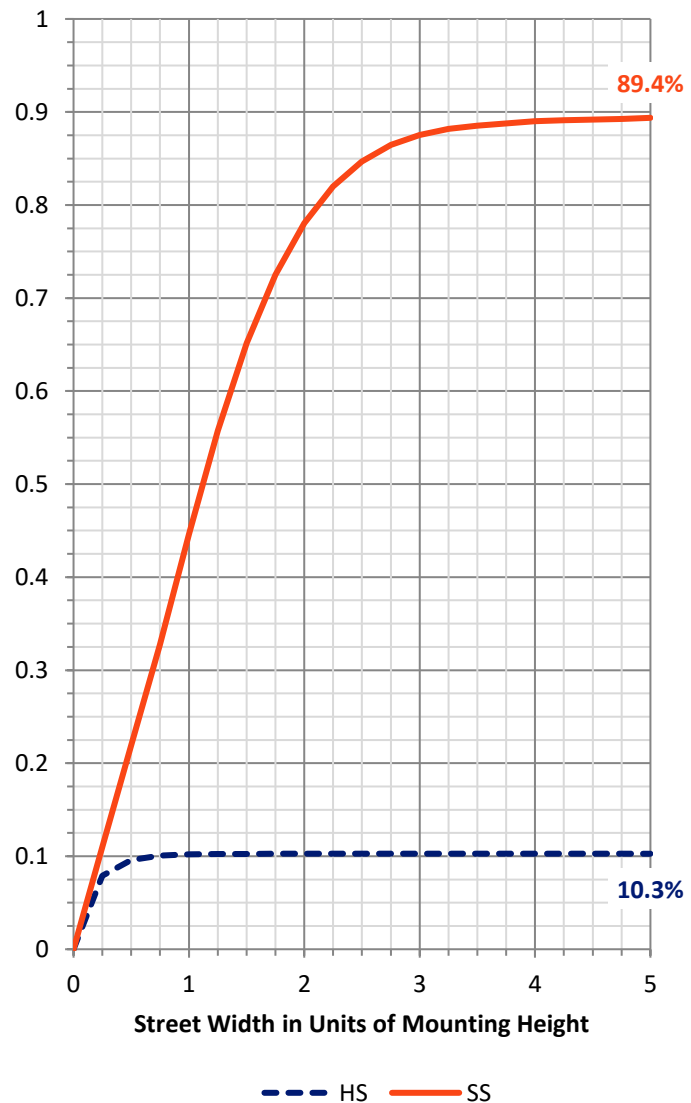
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	886.2	0.0	886.2
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	7665.6	0.0	7665.6
	% Fixture	89.6	0.0	89.6
Total	Lumens	8551.8	0.0	8551.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.8	1.1
10°-20°	242.7	2.8
20°-30°	378.6	4.4
30°-40°	639.9	7.5
40°-50°	1242.8	14.5
50°-60°	2087.1	24.4
60°-70°	2490.7	29.1
70°-80°	1312.6	15.3
80°-90°	66.7	0.8
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°	8551.8	100.0
0°-180°	8551.8	100.0



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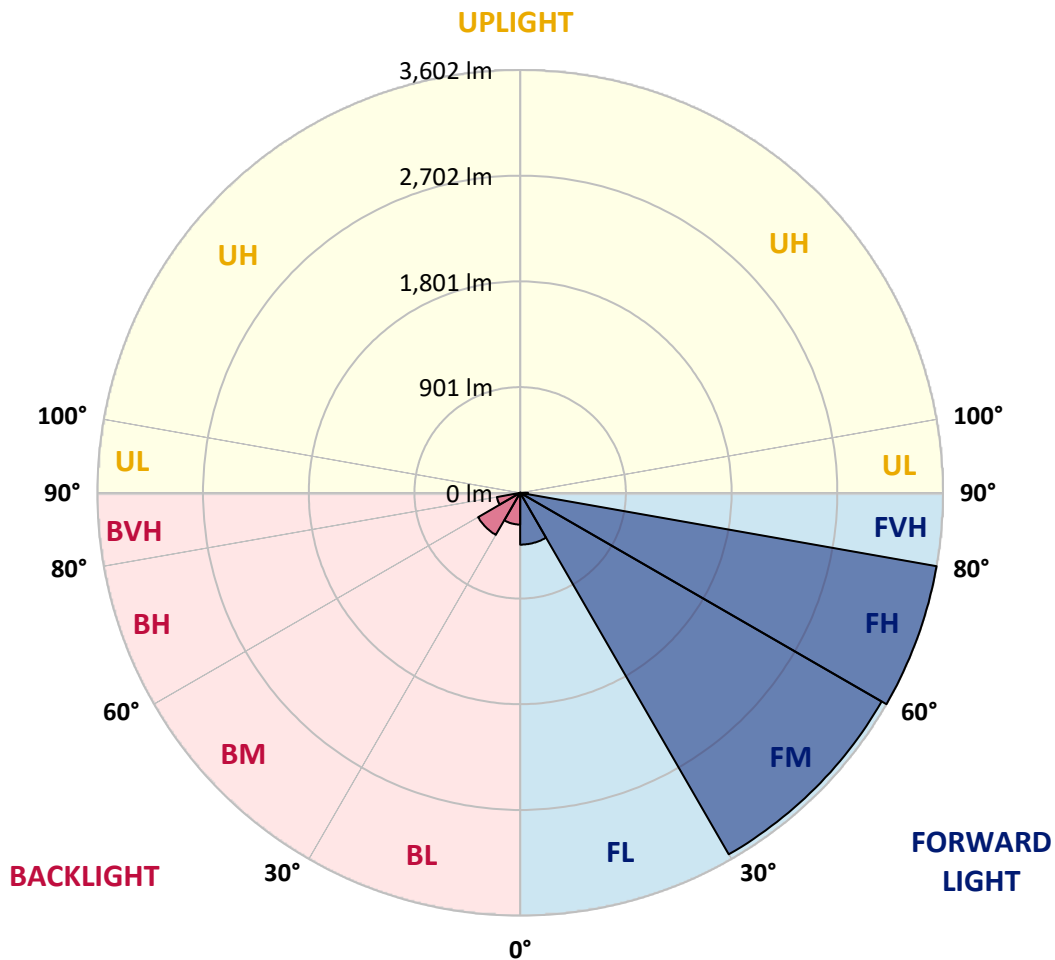
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	441.5	5.2			
FM	(30°-60°)	3555.9	41.6			
FH	(60°-80°)	3602.1	42.1			G2/5000
FVH	(80°-90°)	66.1	0.8			G1/100
BL	(0°-30°)	270.5	3.2	B1/500		
BM	(30°-60°)	413.8	4.8	B1/1000		
BH	(60°-80°)	201.2	2.4	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-G2

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	966.5	966.5	966.5	966.5	966.5	966.5	966.5	966.5	966.5	966.5	966.5
2.5°	952.6	952.6	952.6	954.5	956.6	956.6	960.6	958.5	958.5	958.5	962.5
5°	926.6	928.6	930.6	934.6	942.5	948.6	958.5	958.5	960.6	964.5	966.5
7.5°	890.8	892.7	898.8	906.7	922.6	936.6	952.6	956.6	962.5	972.5	976.4
10°	868.9	872.8	880.8	890.8	908.7	926.6	946.5	952.6	970.5	988.4	998.4
12.5°	862.9	864.9	872.8	888.7	910.7	932.6	958.5	964.5	990.4	1018.3	1034.2
15°	872.8	874.8	878.8	896.7	922.6	950.5	984.4	992.4	1024.3	1056.2	1076.0
17.5°	890.8	890.8	894.8	910.7	938.6	970.5	1014.4	1026.2	1062.1	1098.0	1119.9
20°	902.8	902.8	908.7	924.6	956.6	998.4	1050.2	1066.1	1106.0	1145.8	1165.8
22.5°	914.7	916.7	922.6	940.6	976.4	1034.2	1094.0	1110.0	1155.8	1197.7	1217.6
25°	948.6	946.5	948.6	964.5	1006.4	1078.1	1153.8	1173.7	1221.6	1267.4	1277.4
27.5°	1042.2	1038.2	1012.3	1002.4	1034.2	1123.9	1229.6	1249.4	1305.3	1351.1	1351.1
30°	1257.4	1249.4	1185.7	1104.0	1078.1	1165.8	1301.3	1329.2	1400.9	1440.7	1428.9
32.5°	1530.4	1512.5	1430.8	1291.3	1187.6	1221.6	1377.0	1408.9	1500.6	1534.4	1508.5
35°	1829.3	1827.4	1725.7	1546.4	1398.9	1337.1	1474.7	1512.5	1628.1	1658.0	1616.2
37.5°	2146.3	2154.1	2086.4	1839.4	1666.0	1526.4	1604.2	1648.0	1789.6	1825.4	1785.6
40°	2499.0	2496.9	2471.0	2178.1	1986.8	1795.5	1791.5	1831.4	2002.7	2058.5	2002.7
42.5°	2945.3	2941.3	2847.7	2584.6	2375.4	2146.3	2064.5	2078.4	2269.7	2361.4	2279.7
45°	3399.7	3371.7	3264.1	3036.9	2851.7	2580.6	2425.2	2425.2	2588.6	2714.2	2586.6
47.5°	3652.8	3624.8	3581.0	3455.4	3399.7	3096.8	2867.6	2839.7	2967.3	3094.7	2915.4
50°	3985.5	3985.5	3876.0	3828.1	3923.7	3710.5	3355.8	3328.0	3389.6	3491.3	3256.2
52.5°	4248.6	4200.7	4123.0	4164.8	4437.9	4340.3	3844.0	3790.2	3838.1	3864.0	3553.1
55°	4358.2	4312.4	4306.3	4459.8	4882.2	4746.8	4344.3	4296.4	4292.4	4164.8	3812.1
57.5°	4380.1	4340.3	4416.0	4685.0	5314.7	5079.6	4842.4	4806.5	4694.9	4376.1	4077.2
60°	4194.8	4214.7	4398.1	4808.6	5569.8	5368.5	5262.9	5225.0	4968.0	4555.5	4372.1
62.5°	3814.2	3861.9	4204.7	4820.5	5476.2	5486.1	5496.0	5470.1	5179.2	4718.9	4669.1
65°	3363.8	3377.8	3790.2	4655.1	5312.7	5450.2	5667.5	5665.4	5340.6	4902.2	5003.9
67.5°	2771.9	2795.8	3152.5	4097.1	4985.9	5434.2	5892.6	5886.7	5523.9	5111.5	5203.1
70°	2062.5	2092.4	2381.3	3186.4	4256.5	5235.0	6187.5	6191.5	5717.3	5270.9	5065.7
71°	1608.2	1662.0	1964.9	2706.2	3883.9	5033.7	6215.4	6251.3	5739.2	5249.0	4782.6
72.5°	789.1	852.9	1233.5	1905.0	3196.4	4583.3	6032.1	6101.8	5601.7	4975.9	4089.1
75°	205.2	217.2	368.7	779.2	1713.7	3036.9	4864.3	5041.7	4579.3	3788.3	2499.0
77.5°	129.5	133.5	173.4	302.9	641.7	1153.8	2857.6	2945.3	2616.5	1919.1	880.8
80°	91.7	93.7	109.6	195.3	374.6	336.8	1028.3	1066.1	946.5	508.2	157.4
82.5°	55.8	55.8	79.7	125.5	231.2	183.3	271.0	289.0	255.1	141.5	51.8
85°	31.9	33.9	49.8	85.7	109.6	89.7	101.7	107.6	109.6	93.7	21.9
87.5°	25.9	27.9	43.9	71.7	59.7	43.9	43.9	45.8	47.9	55.8	9.9
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°	966.5	966.5	966.5	966.5	966.5	966.5	966.5	966.5	966.5	966.5	966.5
2.5°	962.5	962.5	964.5	962.5	962.5	962.5	964.5	964.5	964.5	968.5	970.5
5°	966.5	966.5	966.5	964.5	962.5	962.5	966.5	968.5	968.5	974.5	974.5
7.5°	976.4	976.4	972.5	968.5	964.5	958.5	960.6	962.5	960.6	962.5	962.5
10°	998.4	998.4	992.4	984.4	972.5	954.5	930.6	900.7	872.8	862.9	858.9
12.5°	1034.2	1032.3	1020.3	1006.4	980.4	918.7	829.0	723.3	635.7	611.8	603.8
15°	1074.1	1070.1	1056.2	1032.3	962.5	799.1	611.8	476.3	392.6	372.7	368.7
17.5°	1115.9	1110.0	1090.1	1042.2	880.8	593.8	394.6	298.9	253.1	249.1	251.1
20°	1159.8	1151.8	1123.9	1022.3	711.5	396.6	255.1	231.2	227.2	227.2	229.1
22.5°	1209.6	1199.6	1161.8	950.5	518.1	263.0	219.2	217.2	215.2	213.2	213.2
25°	1267.4	1255.5	1197.7	821.0	356.7	215.2	209.2	203.3	199.3	195.3	193.3
27.5°	1337.1	1321.2	1225.6	661.6	245.1	201.3	197.3	187.3	179.3	171.3	171.3
30°	1406.9	1386.9	1217.6	498.2	199.3	187.3	179.3	167.4	155.4	147.5	145.5
32.5°	1480.6	1460.7	1165.8	334.8	181.4	171.3	161.4	143.5	129.5	119.6	117.5
35°	1590.2	1574.3	1064.2	221.2	163.4	151.5	137.5	119.6	101.7	91.7	89.7
37.5°	1753.6	1733.7	938.6	169.4	143.5	125.5	113.5	93.7	75.7	65.8	63.7
40°	1972.9	1913.0	789.1	149.5	125.5	103.6	87.7	67.7	53.8	47.9	47.9
42.5°	2227.9	2086.4	627.7	135.5	111.6	85.7	63.7	45.8	37.8	35.9	35.9
45°	2499.0	2247.8	466.3	125.5	97.7	67.7	45.8	31.9	27.9	25.9	25.9
47.5°	2777.9	2379.4	324.8	113.5	81.7	51.8	31.9	23.9	19.9	17.9	17.9
50°	3039.0	2465.0	229.1	101.7	69.8	37.8	23.9	17.9	13.9	13.9	13.9
52.5°	3220.4	2457.1	165.4	87.7	53.8	25.9	16.0	12.0	12.0	12.0	12.0
55°	3379.7	2427.2	129.5	75.7	41.8	17.9	12.0	9.9	9.9	8.0	8.0
57.5°	3515.3	2379.4	109.6	61.8	29.9	13.9	8.0	8.0	5.9	5.9	5.9
60°	3630.9	2319.5	91.7	51.8	19.9	9.9	5.9	4.0	4.0	1.9	4.0
62.5°	3788.3	2281.7	79.7	39.9	13.9	5.9	4.0	1.9	1.9	0.0	0.0
65°	3903.8	2210.0	67.7	27.9	8.0	4.0	1.9	1.9	0.0	0.0	0.0
67.5°	3907.8	2080.5	49.8	16.0	5.9	4.0	1.9	0.0	0.0	0.0	0.0
70°	3592.9	1773.6	31.9	8.0	4.0	1.9	1.9	0.0	0.0	0.0	0.0
71°	3304.0	1570.3	25.9	5.9	4.0	1.9	0.0	0.0	0.0	0.0	0.0
72.5°	2722.1	1153.8	19.9	5.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0
75°	1500.6	418.5	9.9	4.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	480.3	127.6	5.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	81.7	19.9	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	27.9	8.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	8.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.0	1.9	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)