

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: P234848

Luminaire Tested: **ARCH-M-AF48-80-D-U-T4W-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234848
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-8027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 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: 6417 lumens
Efficiency: N/A
Efficacy: 77.3 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 (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

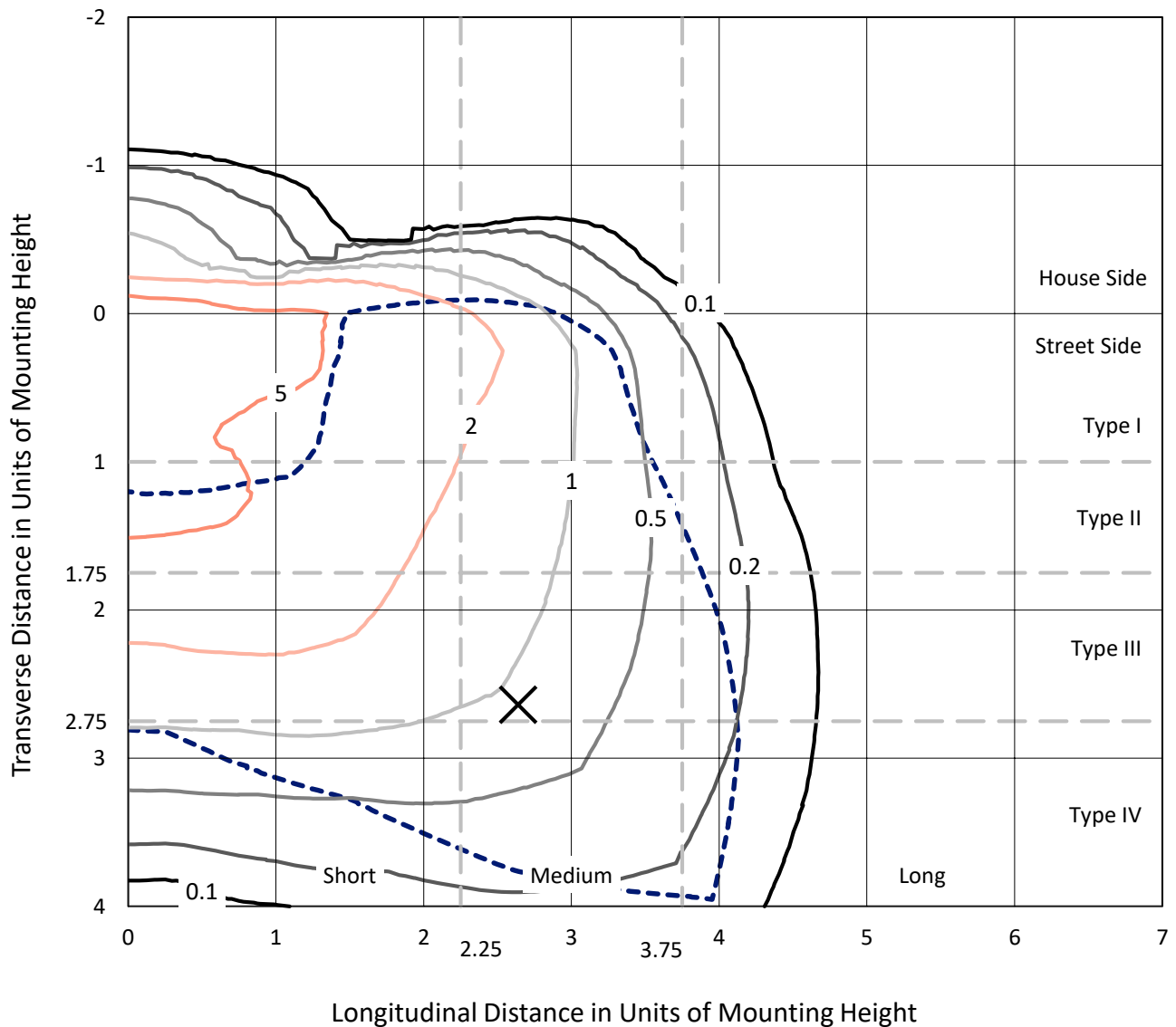


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

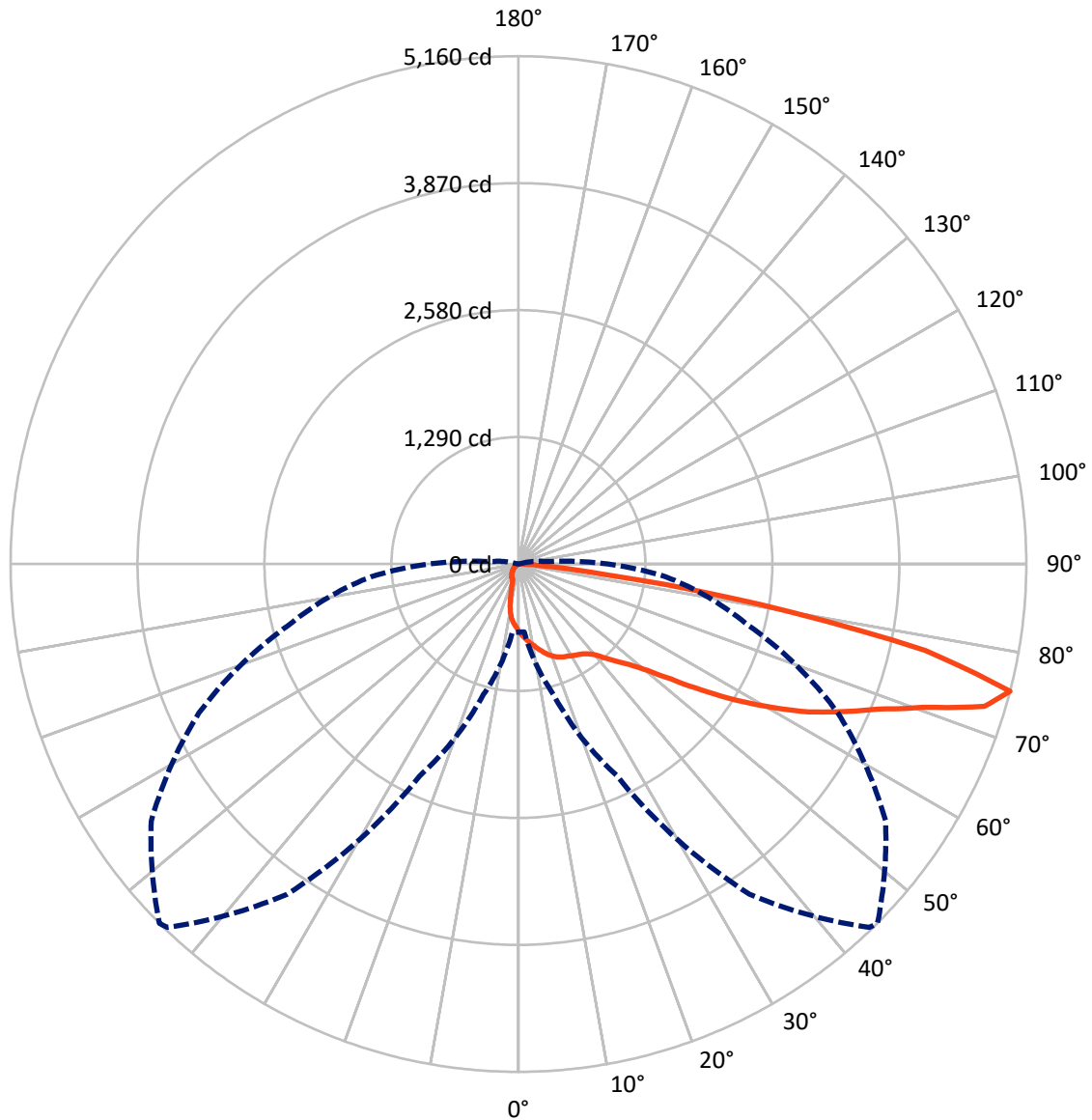


Based on 10 foot mounting height. Maximum calculated value = 9.2 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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



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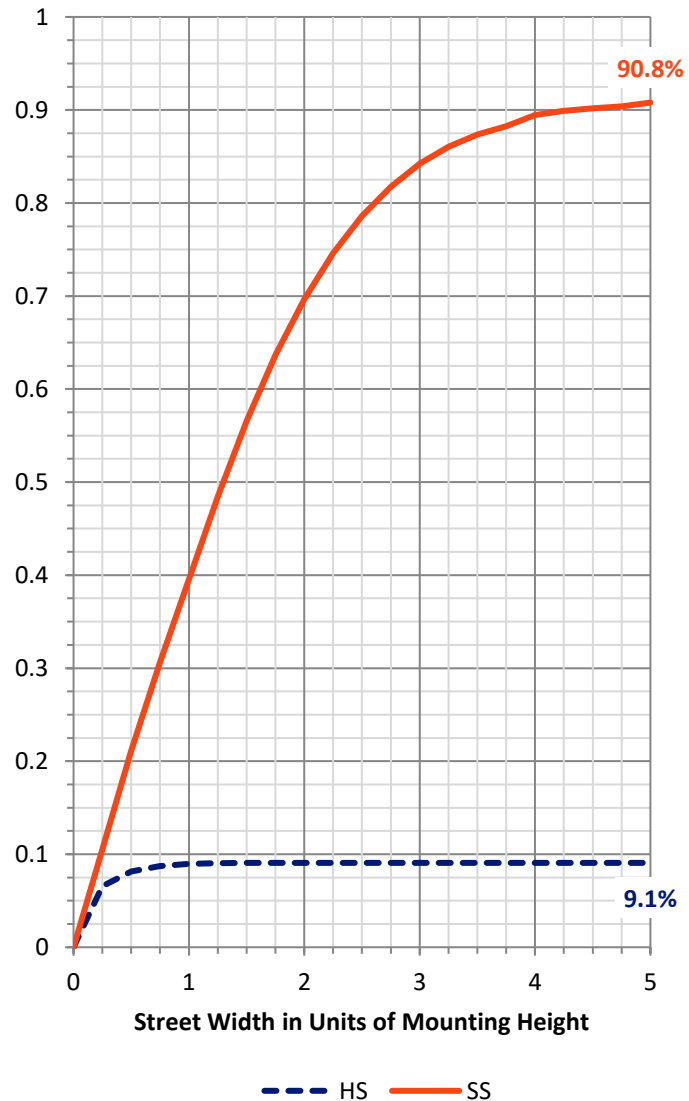
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	587.0	0.0	587.0
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	5830.0	0.0	5830.0
	% Fixture	90.9	0.0	90.9
Total	Lumens	6417.0	0.0	6417.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.8	1.0
10°-20°	183.5	2.9
20°-30°	303.9	4.7
30°-40°	439.8	6.9
40°-50°	720.2	11.2
50°-60°	1283.3	20.0
60°-70°	1886.6	29.4
70°-80°	1423.2	22.2
80°-90°	111.7	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°	6417.0	100.0
0°-180°	6417.0	100.0



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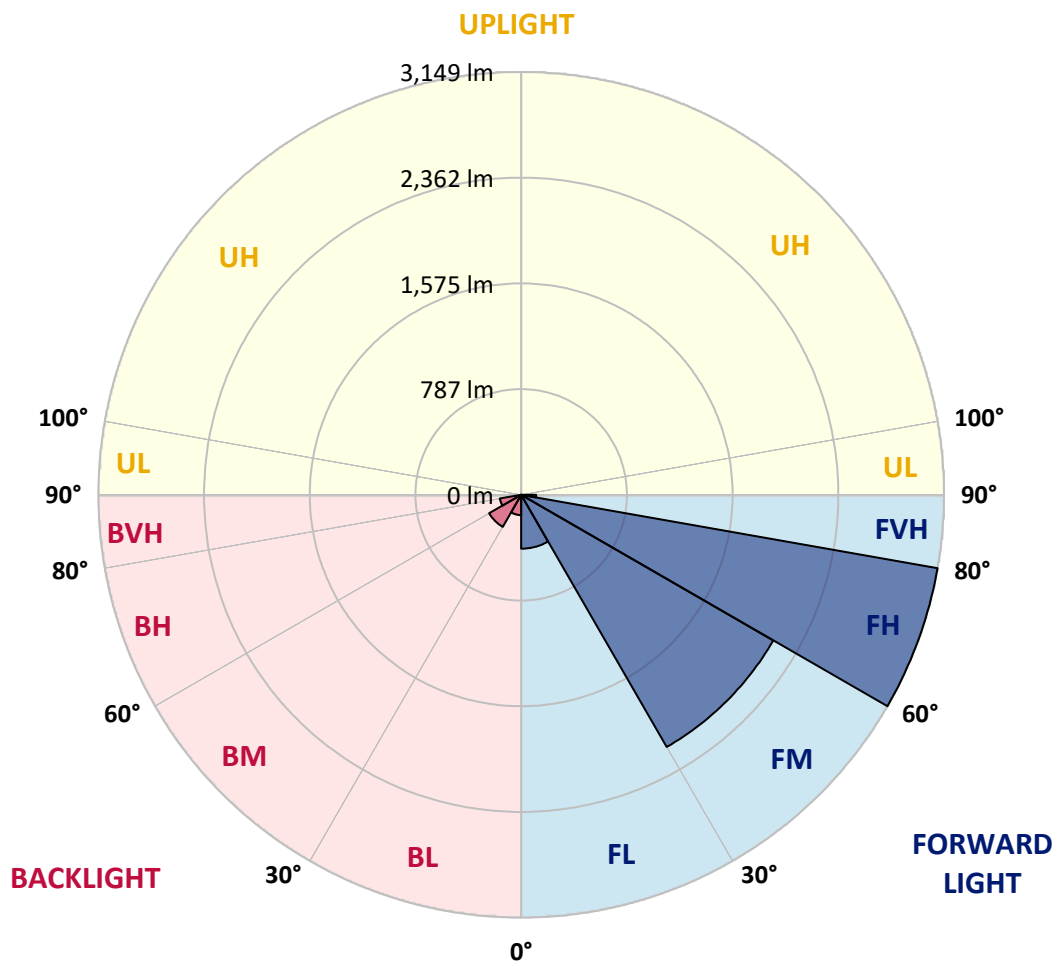
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	401.4	6.3			
FM (30°-60°)	2168.3	33.8			
FH (60°-80°)	3149.1	49.1			G2/5000
FVH (80°-90°)	111.4	1.7			G2/225
BL (0°-30°)	150.8	2.4	B1/500		
BM (30°-60°)	275.1	4.3	B1/1000		
BH (60°-80°)	160.8	2.5	B1/500		G1/500
BVH (80°-90°)	0.3	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°	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3
2.5°	745.6	745.6	744.0	742.5	734.9	727.3	725.8	721.3	707.6	698.5	689.4
5°	807.8	809.3	806.3	798.7	782.0	765.3	763.8	751.6	725.8	707.6	687.9
7.5°	867.0	870.1	862.5	848.8	829.1	804.8	803.3	780.5	747.1	721.3	692.4
10°	917.1	917.1	906.5	889.8	868.5	842.7	839.7	813.9	775.9	744.0	706.1
12.5°	971.8	970.3	955.1	932.3	908.0	883.7	882.2	850.3	813.9	772.9	725.8
15°	1021.9	1018.9	999.1	977.9	952.1	926.2	924.7	892.8	854.9	806.3	754.7
17.5°	1049.2	1047.7	1029.5	1008.2	987.0	967.2	965.7	932.3	891.3	841.2	783.5
20°	1053.8	1055.3	1040.1	1021.9	1009.8	999.1	999.1	968.8	924.7	871.6	813.9
22.5°	1055.3	1059.9	1049.2	1024.9	1021.9	1023.4	1026.5	1002.2	956.6	906.5	845.8
25°	1065.9	1072.0	1064.4	1035.6	1032.5	1043.2	1046.2	1035.6	994.6	944.5	882.2
27.5°	1087.2	1093.3	1087.2	1050.8	1046.2	1056.8	1059.9	1065.9	1035.6	980.9	920.2
30°	1129.7	1131.2	1117.6	1072.0	1062.9	1076.6	1081.1	1097.8	1073.5	1015.8	956.6
32.5°	1204.1	1188.9	1147.9	1087.2	1079.6	1094.8	1099.3	1117.6	1108.5	1049.2	994.6
35°	1356.0	1277.0	1182.9	1108.5	1100.9	1116.1	1122.1	1147.9	1152.5	1096.3	1041.6
37.5°	1354.4	1283.1	1264.9	1149.5	1138.8	1149.5	1157.0	1188.9	1207.2	1158.6	1110.0
40°	1450.1	1419.7	1419.7	1226.9	1192.0	1207.2	1214.7	1246.6	1278.5	1240.6	1190.5
42.5°	1750.8	1731.0	1709.8	1375.7	1266.4	1308.9	1313.4	1333.2	1371.1	1359.0	1299.8
45°	2086.3	2068.1	1986.1	1627.8	1393.9	1401.5	1412.1	1444.0	1498.7	1521.5	1451.6
47.5°	2349.0	2330.8	2261.0	1931.5	1592.8	1526.0	1526.0	1588.3	1673.3	1731.0	1664.2
50°	2560.1	2538.8	2496.3	2254.9	1919.3	1705.2	1696.1	1769.0	1895.0	1984.6	1939.0
52.5°	2765.1	2702.8	2677.0	2588.9	2288.3	1964.9	1940.6	1992.2	2166.8	2277.7	2239.7
55°	2901.7	2892.6	2865.3	2895.7	2675.5	2280.7	2259.4	2270.1	2488.7	2563.1	2516.0
57.5°	3029.3	3027.8	3088.5	3229.7	3097.6	2642.1	2608.7	2592.0	2800.0	2781.8	2822.8
60°	3187.2	3159.9	3301.1	3503.0	3484.8	2994.4	2956.4	2923.0	3038.4	2986.8	3190.2
62.5°	3194.8	3187.2	3474.2	3764.2	3869.0	3352.7	3308.7	3188.7	3246.4	3187.2	3541.0
65°	2904.8	2942.7	3547.1	3902.4	4190.9	3667.0	3613.9	3427.1	3431.7	3392.2	3954.0
67.5°	2839.5	2859.2	3346.6	4051.2	4423.2	3984.4	3934.3	3701.9	3647.3	3650.3	4198.5
70°	2677.0	2707.4	3097.6	4040.6	4606.9	4408.0	4357.9	4105.9	3973.7	3826.5	4010.2
72.5°	2045.3	2097.0	2610.2	3542.5	4556.8	4962.2	4948.6	4617.6	4104.3	3513.7	3033.8
75°	692.4	690.9	1371.1	2379.4	4093.7	5132.3	5159.6	4553.8	3580.5	2423.4	1506.3
77.5°	148.8	150.3	282.4	964.2	2719.5	4121.0	4225.8	3434.7	2309.5	1079.6	344.7
80°	72.9	74.4	116.9	255.1	1087.2	2311.1	2475.1	1765.9	853.4	215.6	57.7
82.5°	36.4	38.0	60.7	135.1	402.4	821.5	877.7	649.9	244.5	121.5	28.9
85°	13.7	13.7	30.4	80.5	183.7	192.8	236.9	188.3	147.3	98.7	7.6
87.5°	3.0	3.0	16.7	39.5	82.0	60.7	60.7	57.7	89.6	66.8	3.0
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°	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3
2.5°	684.8	678.7	668.1	657.5	649.9	640.8	636.2	631.7	630.2	628.6	631.7
5°	677.2	668.1	648.4	631.7	616.5	604.3	595.2	586.1	581.6	578.5	580.0
7.5°	677.2	663.6	634.7	608.9	584.6	558.8	533.0	513.2	498.0	488.9	490.5
10°	684.8	666.6	628.6	593.7	548.2	493.5	437.3	394.8	365.9	349.2	349.2
12.5°	701.5	677.2	630.2	575.5	498.0	402.4	317.4	265.7	244.5	232.3	233.8
15°	724.3	695.4	637.7	551.2	428.2	299.1	221.7	188.3	188.3	191.3	192.8
17.5°	750.1	718.2	643.8	514.7	338.6	214.1	174.6	171.6	176.1	183.7	183.7
20°	775.9	741.0	646.9	457.0	253.6	170.1	165.5	165.5	168.5	176.1	177.7
22.5°	807.8	769.8	643.8	385.7	189.8	161.0	159.4	159.4	159.4	168.5	168.5
25°	841.2	803.3	631.7	309.8	161.0	154.9	153.4	151.8	151.8	159.4	161.0
27.5°	879.2	838.2	602.8	236.9	151.8	148.8	147.3	144.3	144.3	150.3	150.3
30°	917.1	877.7	558.8	179.2	144.3	142.7	139.7	136.7	133.6	139.7	139.7
32.5°	958.1	918.7	501.1	142.7	133.6	133.6	132.1	127.5	124.5	127.5	129.1
35°	1012.8	965.7	435.8	124.5	120.0	120.0	120.0	118.4	112.4	115.4	115.4
37.5°	1085.7	1031.0	359.9	115.4	109.3	106.3	106.3	106.3	101.7	103.3	103.3
40°	1178.3	1106.9	287.0	107.8	101.7	94.1	91.1	92.6	89.6	89.6	88.1
42.5°	1304.3	1188.9	215.6	101.7	95.7	85.0	79.0	77.4	74.4	72.9	72.9
45°	1485.0	1289.2	154.9	95.7	91.1	74.4	68.3	63.8	56.2	51.6	51.6
47.5°	1718.9	1403.0	115.4	89.6	86.6	65.3	57.7	48.6	38.0	34.9	34.9
50°	2004.3	1530.6	97.2	80.5	79.0	57.7	45.6	31.9	21.3	18.2	19.7
52.5°	2282.2	1650.5	86.6	71.4	69.8	50.1	33.4	16.7	9.1	9.1	9.1
55°	2516.0	1735.6	79.0	63.8	60.7	39.5	18.2	7.6	4.6	4.6	4.6
57.5°	2727.1	1784.2	71.4	56.2	48.6	27.3	7.6	3.0	3.0	1.5	1.5
60°	2920.0	1813.0	62.3	48.6	38.0	15.2	3.0	1.5	1.5	0.0	0.0
62.5°	3109.8	1834.3	53.1	39.5	28.9	6.1	1.5	1.5	0.0	0.0	0.0
65°	3254.0	1826.7	42.5	31.9	18.2	3.0	1.5	0.0	0.0	0.0	0.0
67.5°	3249.5	1723.4	31.9	24.3	9.1	1.5	0.0	0.0	0.0	0.0	0.0
70°	2906.3	1451.6	21.3	15.2	3.0	1.5	0.0	0.0	0.0	0.0	0.0
72.5°	2062.0	930.8	13.7	9.1	1.5	0.0	0.0	0.0	0.0	0.0	0.0
75°	908.0	282.4	7.6	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	177.7	65.3	4.6	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	42.5	7.6	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	18.2	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.6	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.0	1.5	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)