

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: P265786

Luminaire Tested: **ARCH-M-AF48-70-D-U-T4W-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265786
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-AF48-70-D-U-T4W-7027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 470mA 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: 6415.9 lumens
Efficiency: N/A
Efficacy: 87.9 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): 73
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

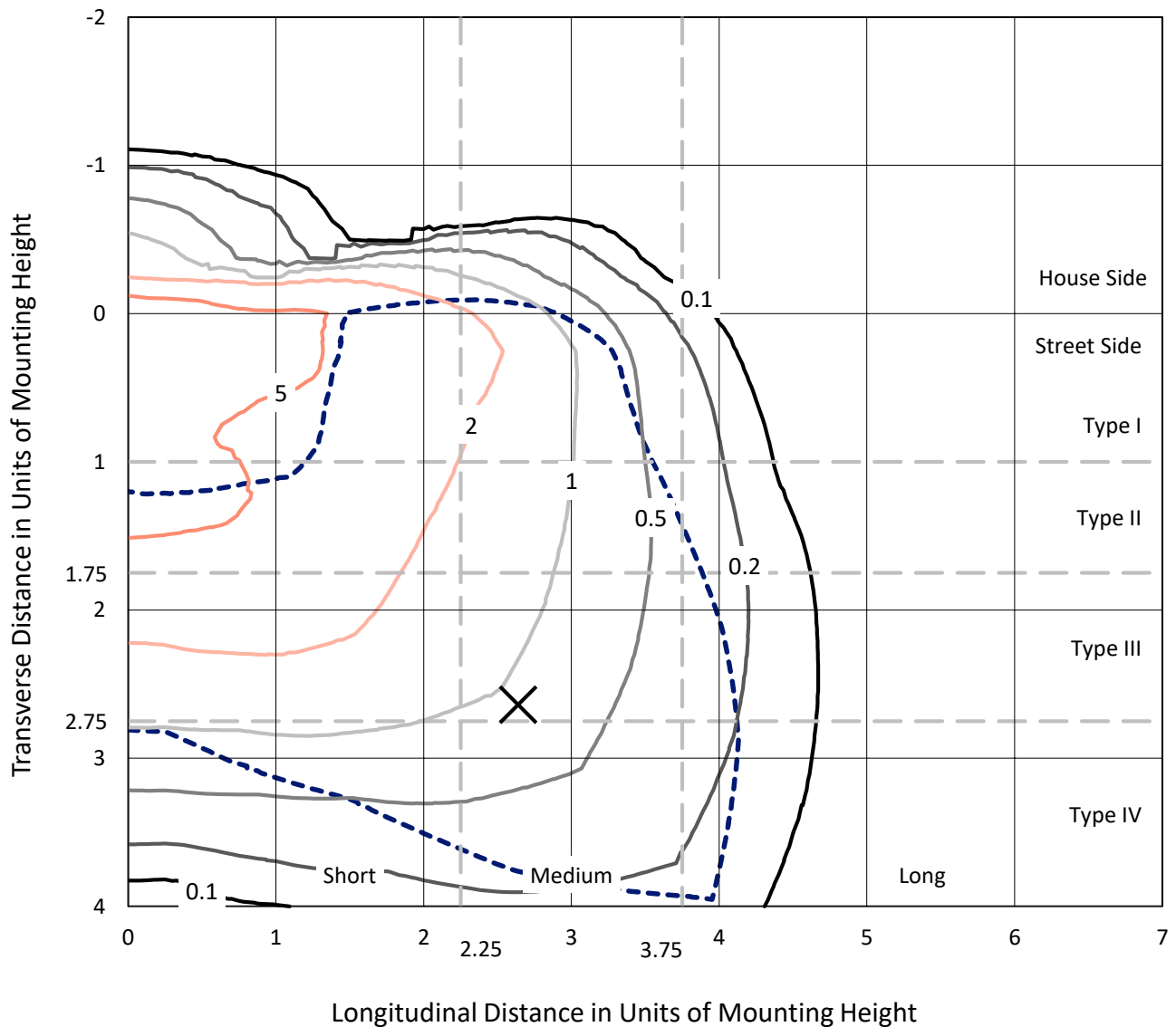


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

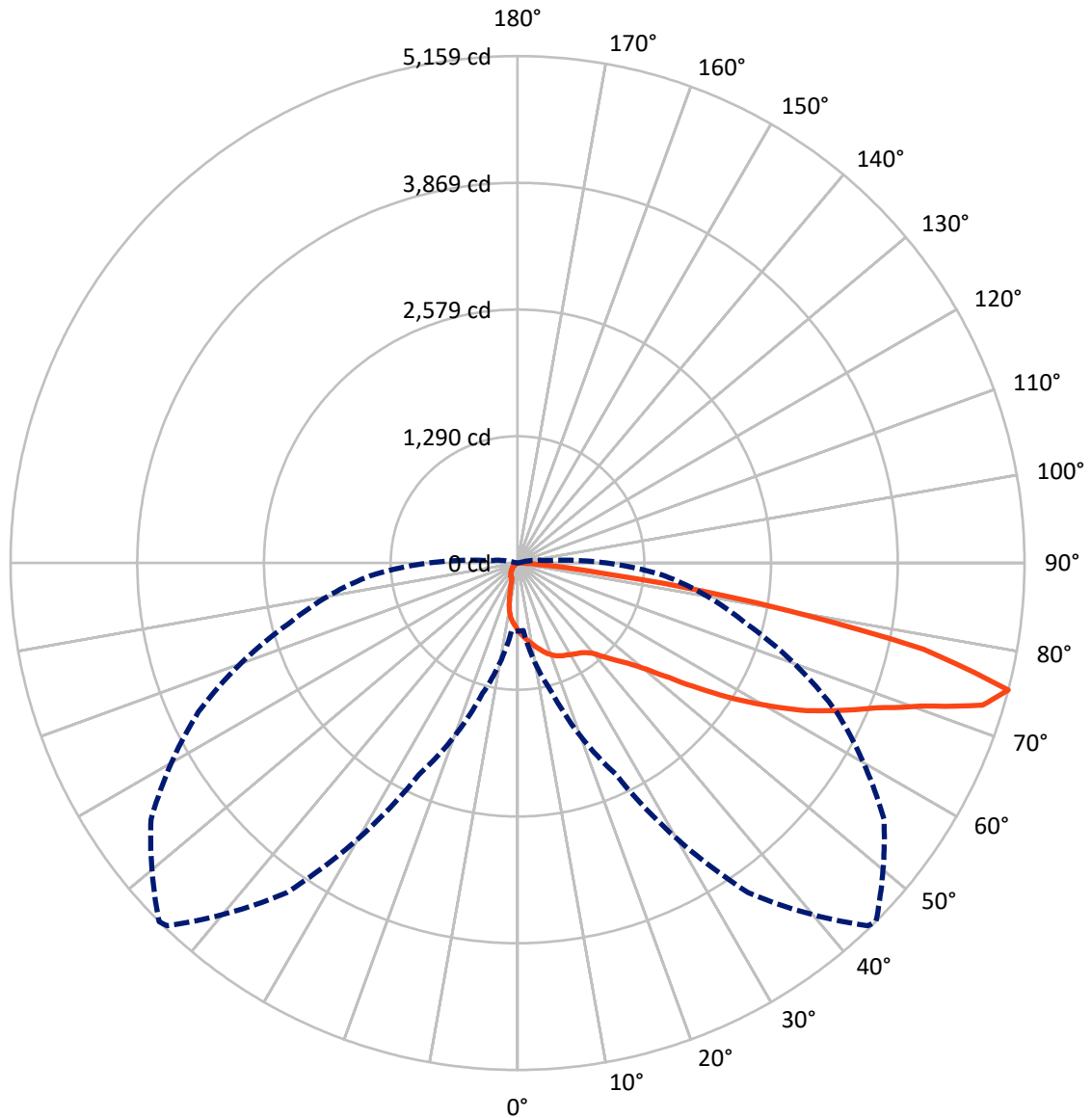


Based on 10 foot mounting height. Maximum calculated value = 9.2 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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



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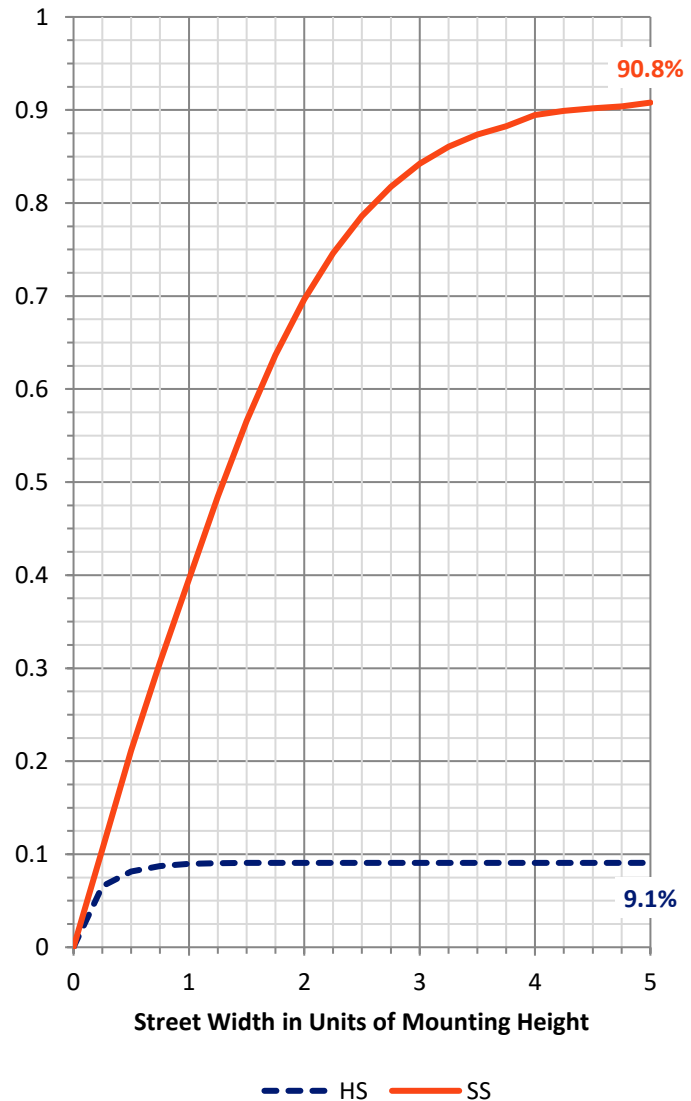
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	586.8	0.0	586.8
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	5829.1	0.0	5829.1
	% Fixture	90.9	0.0	90.9
Total	Lumens	6415.9	0.0	6415.9
	% 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°	720.1	11.2
50°-60°	1283.1	20.0
60°-70°	1886.3	29.4
70°-80°	1423.0	22.2
80°-90°	111.6	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°	6415.9	100.0
0°-180°	6415.9	100.0



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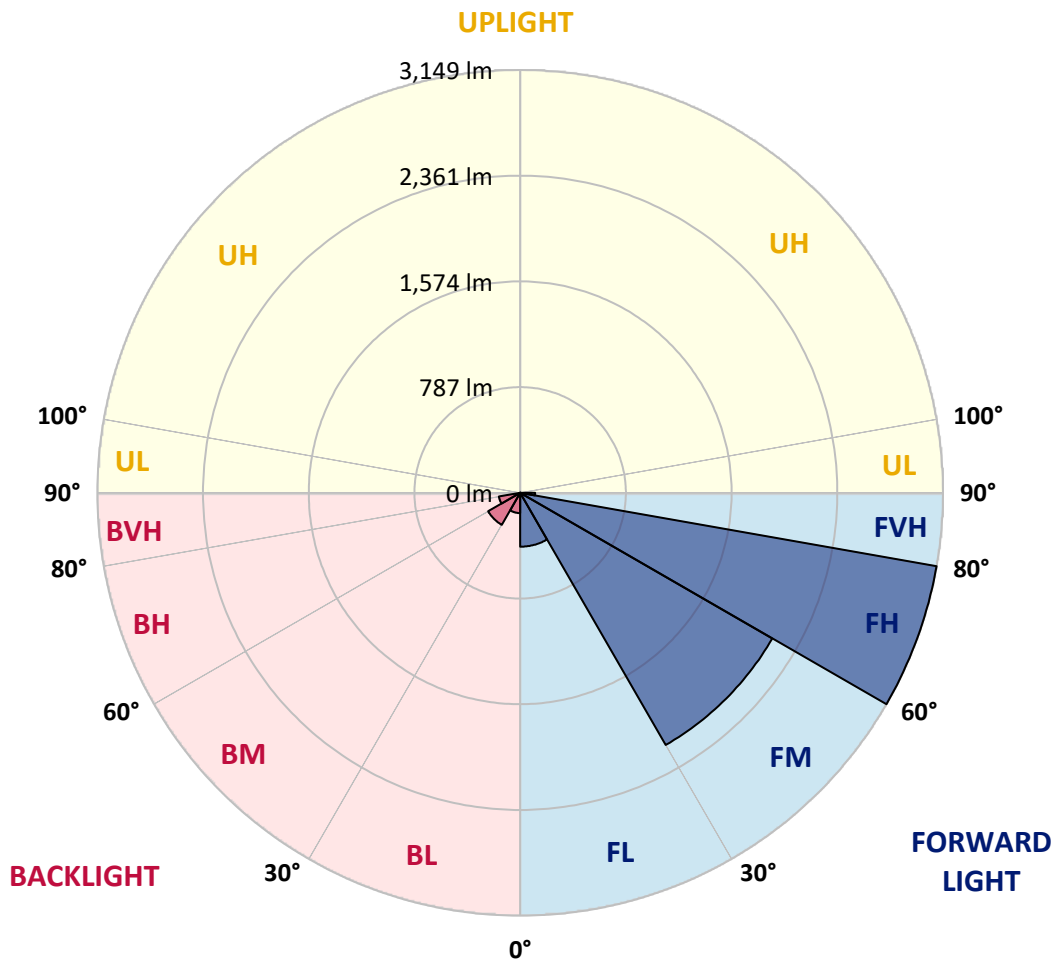
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	401.3	6.3			
FM	(30°-60°)	2167.9	33.8			
FH	(60°-80°)	3148.5	49.1			G2/5000
FVH	(80°-90°)	111.3	1.7			G2/225
BL	(0°-30°)	150.8	2.4	B1/500		
BM	(30°-60°)	275.0	4.3	B1/1000		
BH	(60°-80°)	160.7	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°	686.2	686.2	686.2	686.2	686.2	686.2	686.2	686.2	686.2	686.2	686.2
2.5°	745.5	745.5	743.8	742.4	734.9	727.2	725.7	721.1	707.4	698.3	689.3
5°	807.7	809.3	806.1	798.6	781.9	765.1	763.6	751.5	725.7	707.4	687.7
7.5°	866.9	869.9	862.4	848.7	829.0	804.6	803.2	780.4	746.9	721.1	692.4
10°	917.0	917.0	906.4	889.6	868.4	842.6	839.6	813.8	775.7	743.8	706.0
12.5°	971.6	970.1	955.0	932.3	907.8	883.7	882.0	850.2	813.8	772.7	725.7
15°	1021.7	1018.7	998.9	977.7	951.9	926.2	924.5	892.6	854.7	806.1	754.5
17.5°	1049.1	1047.6	1029.4	1008.1	986.8	967.0	965.6	932.3	891.2	841.1	783.4
20°	1053.6	1055.1	1040.0	1021.7	1009.5	998.9	998.9	968.6	924.5	871.4	813.8
22.5°	1055.1	1059.7	1049.1	1024.7	1021.7	1023.3	1026.4	1002.0	956.4	906.4	845.7
25°	1065.7	1071.9	1064.2	1035.3	1032.3	1043.0	1046.0	1035.3	994.5	944.3	882.0
27.5°	1086.9	1093.1	1086.9	1050.6	1046.0	1056.6	1059.7	1065.7	1035.3	980.8	920.0
30°	1129.4	1131.1	1117.4	1071.9	1062.8	1076.3	1080.9	1097.6	1073.4	1015.7	956.4
32.5°	1203.9	1188.7	1147.8	1086.9	1079.5	1094.7	1099.2	1117.4	1108.2	1049.1	994.5
35°	1355.7	1276.9	1182.7	1108.2	1100.8	1115.9	1122.0	1147.8	1152.3	1096.1	1041.5
37.5°	1354.3	1282.9	1264.6	1149.3	1138.6	1149.3	1156.8	1188.7	1207.0	1158.4	1109.8
40°	1449.9	1419.5	1419.5	1226.6	1191.8	1207.0	1214.6	1246.4	1278.3	1240.4	1190.3
42.5°	1750.4	1730.8	1709.5	1375.5	1266.3	1308.7	1313.2	1332.9	1371.0	1358.7	1299.6
45°	2086.0	2067.8	1985.9	1627.5	1393.7	1401.3	1412.0	1443.8	1498.5	1521.2	1451.4
47.5°	2348.6	2330.5	2260.6	1931.1	1592.5	1525.9	1525.9	1588.1	1673.1	1730.8	1663.9
50°	2559.7	2538.4	2495.9	2254.4	1919.0	1705.0	1695.8	1768.8	1894.6	1984.3	1938.7
52.5°	2764.7	2702.5	2676.6	2588.5	2288.0	1964.6	1940.2	1991.8	2166.4	2277.3	2239.4
55°	2901.3	2892.2	2864.9	2895.1	2675.1	2280.3	2259.1	2269.7	2488.3	2562.8	2515.7
57.5°	3028.7	3027.3	3088.1	3229.1	3097.0	2641.6	2608.3	2591.5	2799.6	2781.3	2822.4
60°	3186.6	3159.3	3300.6	3502.4	3484.3	2994.0	2956.0	2922.5	3037.9	2986.2	3189.7
62.5°	3194.3	3186.6	3473.6	3763.5	3868.3	3352.1	3308.1	3188.2	3245.8	3186.6	3540.4
65°	2904.3	2942.3	3546.5	3901.8	4190.2	3666.4	3613.3	3426.6	3431.0	3391.6	3953.4
67.5°	2839.1	2858.8	3346.0	4050.5	4422.4	3983.8	3933.6	3701.3	3646.7	3649.8	4197.8
70°	2676.6	2707.0	3097.0	4039.9	4606.1	4407.4	4357.1	4105.2	3973.2	3825.8	4009.6
72.5°	2045.0	2096.6	2609.8	3541.9	4556.1	4961.3	4947.8	4616.7	4103.6	3513.1	3033.3
75°	692.4	690.7	1371.0	2379.0	4093.0	5131.5	5158.7	4553.0	3579.8	2423.0	1506.1
77.5°	148.8	150.2	282.3	964.1	2719.1	4120.3	4225.1	3434.1	2309.2	1079.5	344.6
80°	72.9	74.4	116.9	255.1	1086.9	2310.7	2474.7	1765.7	853.2	215.6	57.8
82.5°	36.4	38.0	60.7	135.1	402.4	821.3	877.6	649.7	244.3	121.5	28.8
85°	13.7	13.7	30.4	80.5	183.8	192.7	236.9	188.3	147.2	98.6	7.5
87.5°	3.1	3.1	16.7	39.4	81.9	60.7	60.7	57.8	89.7	66.8	3.1
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°	686.2	686.2	686.2	686.2	686.2	686.2	686.2	686.2	686.2	686.2	686.2
2.5°	684.7	678.6	668.0	657.4	649.7	640.8	636.1	631.6	630.0	628.5	631.6
5°	677.1	668.0	648.2	631.6	616.3	604.2	595.1	586.1	581.5	578.4	579.9
7.5°	677.1	663.5	634.7	608.8	584.4	558.7	532.9	513.1	498.0	488.9	490.4
10°	684.7	666.5	628.5	593.6	548.1	493.3	437.2	394.7	365.9	349.3	349.3
12.5°	701.3	677.1	630.0	575.4	498.0	402.4	317.3	265.7	244.3	232.3	233.7
15°	724.2	695.3	637.6	551.1	428.1	299.0	221.6	188.3	188.3	191.2	192.7
17.5°	749.9	718.1	643.7	514.6	338.5	214.1	174.6	171.5	176.1	183.8	183.8
20°	775.7	740.9	646.7	457.0	253.5	170.0	165.5	165.5	168.5	176.1	177.7
22.5°	807.7	769.7	643.7	385.6	189.8	160.9	159.4	159.4	159.4	168.5	168.5
25°	841.1	803.2	631.6	309.7	160.9	154.9	153.3	151.9	151.9	159.4	160.9
27.5°	879.0	838.1	602.8	236.9	151.9	148.8	147.2	144.2	144.2	150.2	150.2
30°	917.0	877.6	558.7	179.1	144.2	142.7	139.6	136.6	133.6	139.6	139.6
32.5°	958.0	918.4	501.1	142.7	133.6	133.6	132.1	127.5	124.4	127.5	129.0
35°	1012.6	965.6	435.7	124.4	120.0	120.0	120.0	118.4	112.4	115.4	115.4
37.5°	1085.5	1030.8	359.9	115.4	109.4	106.3	106.3	106.3	101.7	103.2	103.2
40°	1178.0	1106.7	287.0	107.7	101.7	94.1	91.1	92.6	89.7	89.7	88.0
42.5°	1304.1	1188.7	215.6	101.7	95.7	85.0	79.0	77.4	74.4	72.9	72.9
45°	1484.8	1289.0	154.9	95.7	91.1	74.4	68.4	63.8	56.1	51.7	51.7
47.5°	1718.5	1402.9	115.4	89.7	86.5	65.2	57.8	48.6	38.0	34.9	34.9
50°	2003.9	1530.4	97.1	80.5	79.0	57.8	45.5	31.9	21.3	18.2	19.8
52.5°	2281.9	1650.2	86.5	71.3	69.9	50.0	33.3	16.7	9.2	9.2	9.2
55°	2515.7	1735.3	79.0	63.8	60.7	39.4	18.2	7.5	4.5	4.5	4.5
57.5°	2726.6	1783.9	71.3	56.1	48.6	27.3	7.5	3.1	3.1	1.4	1.4
60°	2919.5	1812.7	62.3	48.6	38.0	15.2	3.1	1.4	1.4	0.0	0.0
62.5°	3109.3	1834.0	53.1	39.4	28.8	6.1	1.4	1.4	0.0	0.0	0.0
65°	3253.5	1826.3	42.5	31.9	18.2	3.1	1.4	0.0	0.0	0.0	0.0
67.5°	3248.9	1723.2	31.9	24.3	9.2	1.4	0.0	0.0	0.0	0.0	0.0
70°	2905.7	1451.4	21.3	15.2	3.1	1.4	0.0	0.0	0.0	0.0	0.0
72.5°	2061.7	930.6	13.7	9.2	1.4	0.0	0.0	0.0	0.0	0.0	0.0
75°	907.8	282.3	7.5	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	177.7	65.2	4.5	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	42.5	7.5	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	18.2	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.5	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.1	1.4	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)