

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: P265993

Luminaire Tested: **ARCH-AF24-100-D-U-T4W-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265993
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-AF24-100-D-U-T4W-7027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 1200mA LIGHT ENGINE 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: 6068.5 lumens
Efficiency: N/A
Efficacy: 63.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 96
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

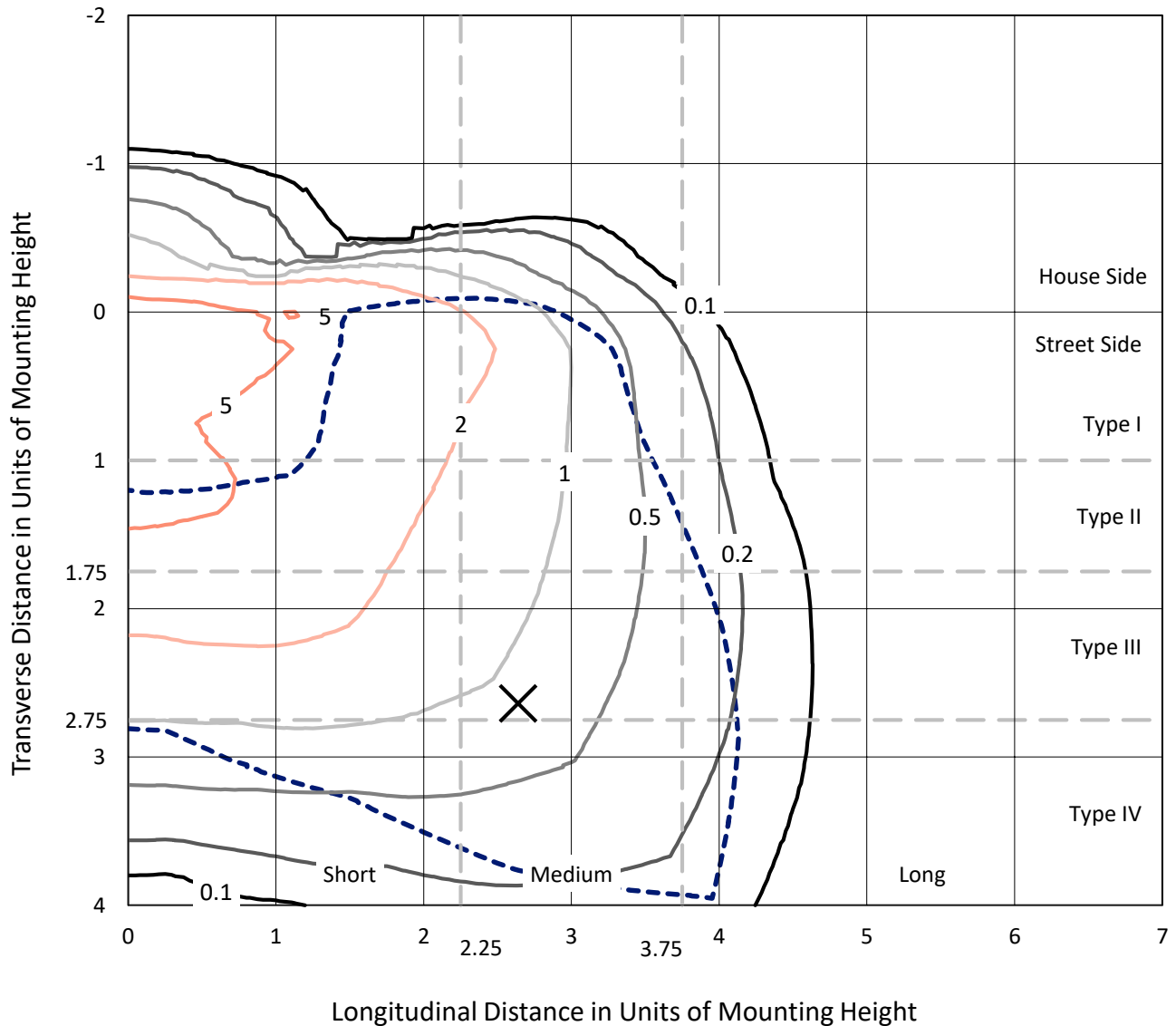


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

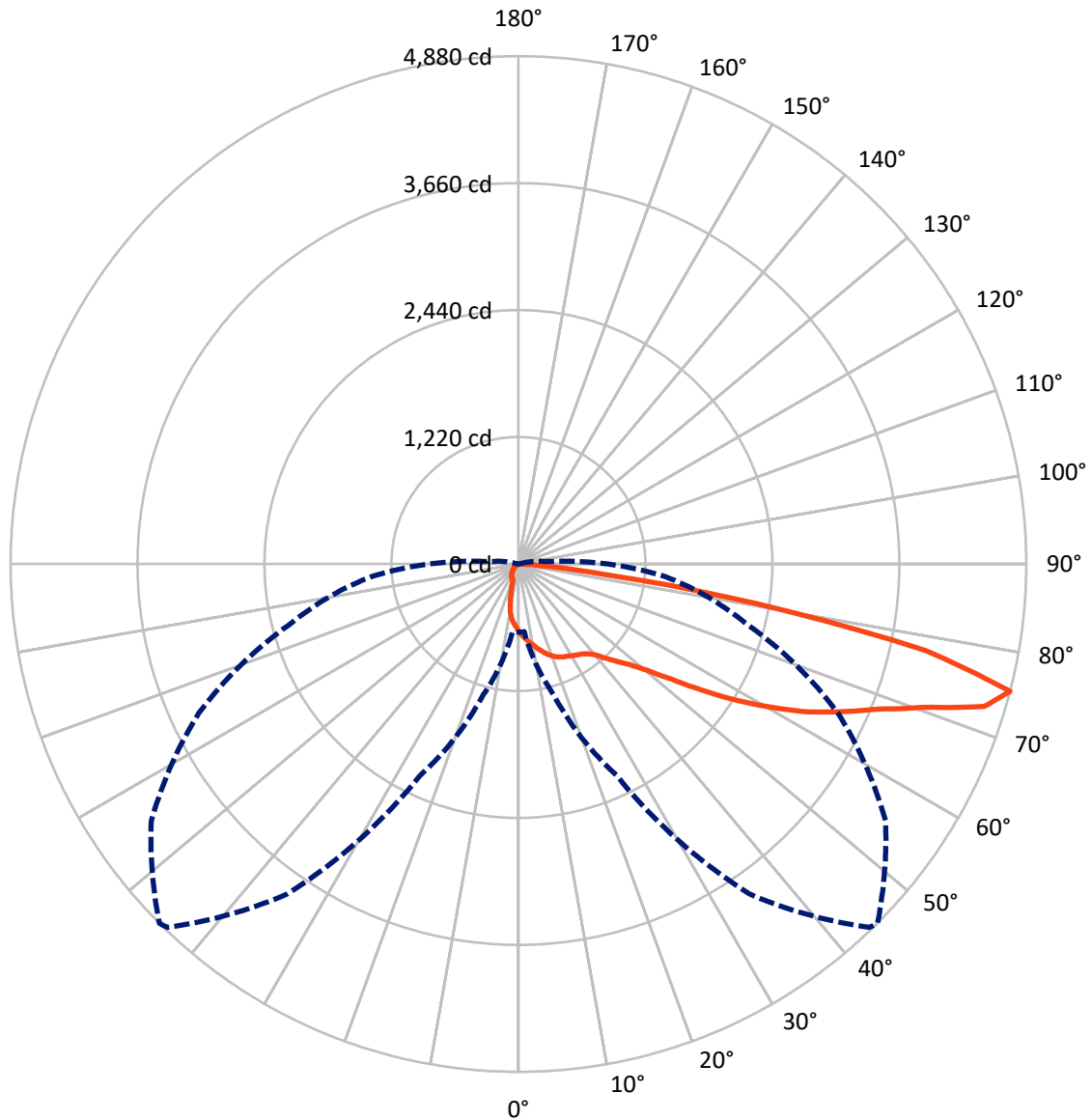


Based on 10 foot mounting height. Maximum calculated value = 8.7 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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

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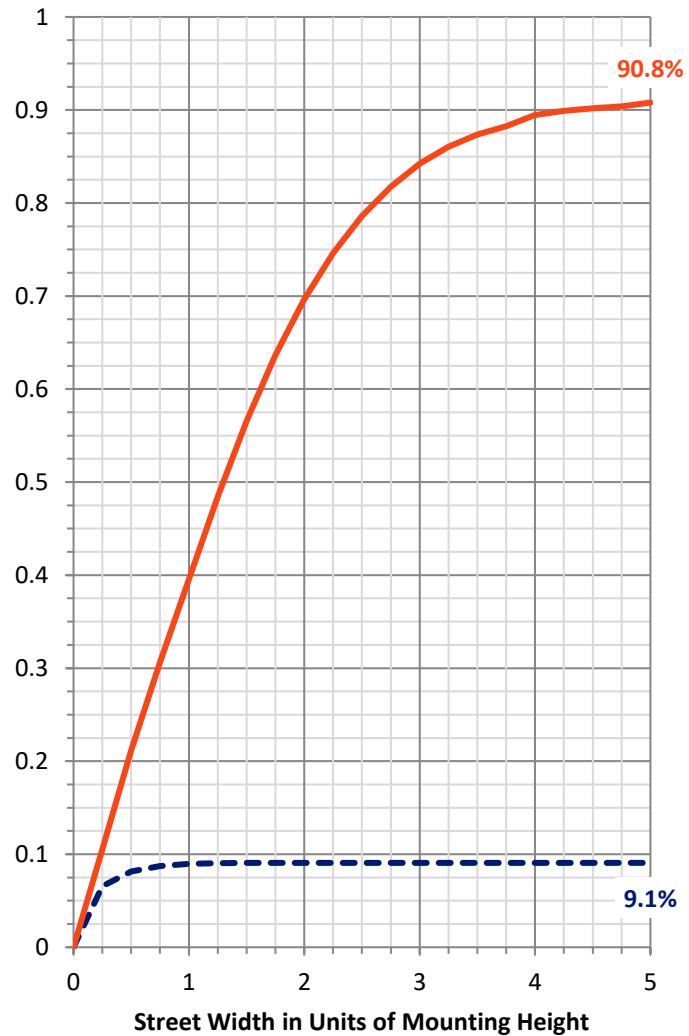
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	555.1	0.0	555.1
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	5513.4	0.0	5513.4
	% Fixture	90.9	0.0	90.9
Total	Lumens	6068.5	0.0	6068.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.3	1.0
10°-20°	173.5	2.9
20°-30°	287.4	4.7
30°-40°	415.9	6.9
40°-50°	681.1	11.2
50°-60°	1213.6	20.0
60°-70°	1784.1	29.4
70°-80°	1345.9	22.2
80°-90°	105.6	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°	6068.5	100.0
0°-180°	6068.5	100.0



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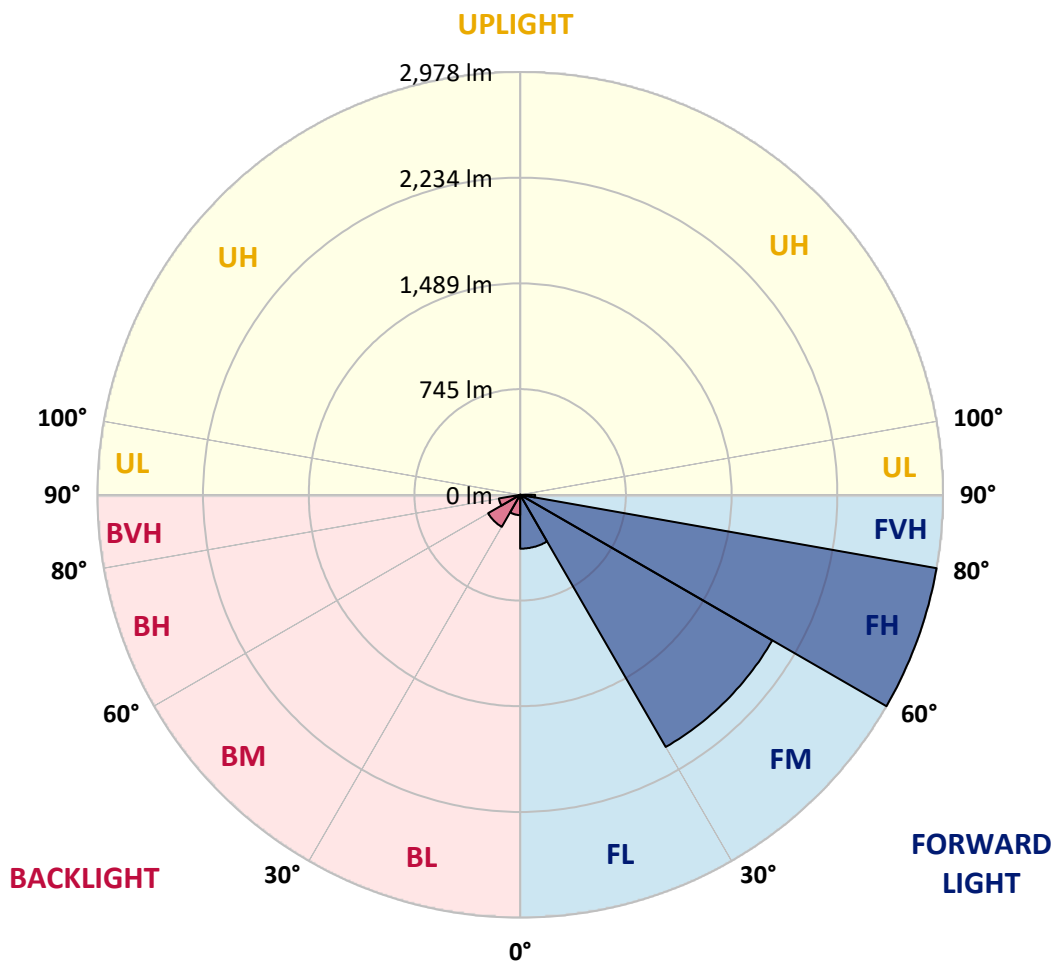
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	379.6	6.3			
FM	(30°-60°)	2050.5	33.8			
FH	(60°-80°)	2978.0	49.1			G2/5000
FVH	(80°-90°)	105.3	1.7			G2/225
BL	(0°-30°)	142.6	2.4	B1/500		
BM	(30°-60°)	260.1	4.3	B1/1000		
BH	(60°-80°)	152.0	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°	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0
2.5°	705.1	705.1	703.6	702.1	695.0	687.8	686.3	682.2	669.1	660.6	651.9
5°	764.0	765.4	762.5	755.4	739.6	723.8	722.2	710.7	686.3	669.1	650.6
7.5°	820.0	822.8	815.7	802.7	784.0	761.0	759.6	738.0	706.4	682.2	654.9
10°	867.4	867.4	857.3	841.5	821.4	796.9	794.1	769.7	733.7	703.6	667.7
12.5°	919.1	917.6	903.2	881.6	858.7	835.8	834.3	804.2	769.7	731.0	686.3
15°	966.3	963.5	944.8	924.7	900.3	875.9	874.5	844.3	808.5	762.5	713.7
17.5°	992.3	990.8	973.7	953.6	933.3	914.7	913.2	881.6	842.9	795.4	740.9
20°	996.6	997.9	983.6	966.3	954.9	944.8	944.8	916.1	874.5	824.3	769.7
22.5°	997.9	1002.2	992.3	969.4	966.3	967.8	970.7	947.7	904.7	857.3	799.9
25°	1008.1	1013.7	1006.6	979.3	976.5	986.5	989.5	979.3	940.5	893.2	834.3
27.5°	1028.2	1033.9	1028.2	993.6	989.5	999.5	1002.2	1008.1	979.3	927.6	870.2
30°	1068.4	1069.8	1056.9	1013.7	1005.2	1018.0	1022.5	1038.3	1015.3	960.6	904.7
32.5°	1138.7	1124.4	1085.6	1028.2	1021.0	1035.3	1039.7	1056.9	1048.2	992.3	940.5
35°	1282.3	1207.6	1118.6	1048.2	1041.0	1055.5	1061.2	1085.6	1090.0	1036.7	985.1
37.5°	1281.0	1213.4	1196.2	1086.9	1077.0	1086.9	1094.2	1124.4	1141.6	1095.7	1049.7
40°	1371.4	1342.6	1342.6	1160.3	1127.3	1141.6	1148.8	1178.9	1209.1	1173.1	1125.8
42.5°	1655.7	1637.0	1616.9	1300.9	1197.6	1237.9	1242.1	1260.9	1296.7	1285.1	1229.2
45°	1973.0	1955.8	1878.3	1539.3	1318.3	1325.4	1335.5	1365.7	1417.3	1438.8	1372.8
47.5°	2221.5	2204.3	2138.1	1826.6	1506.4	1443.1	1443.1	1502.1	1582.5	1637.0	1573.8
50°	2421.0	2400.9	2360.7	2132.4	1815.0	1612.5	1604.0	1673.0	1792.1	1876.7	1833.7
52.5°	2614.8	2556.0	2531.7	2448.3	2163.9	1858.1	1835.1	1883.9	2049.2	2154.0	2118.1
55°	2744.1	2735.5	2709.6	2738.5	2530.2	2156.8	2136.7	2146.8	2353.6	2423.9	2379.4
57.5°	2864.8	2863.3	2920.7	3054.2	2929.5	2498.5	2466.9	2451.3	2647.9	2630.6	2669.5
60°	3014.2	2988.2	3121.8	3312.8	3295.5	2831.7	2795.9	2764.3	2873.4	2824.5	3017.0
62.5°	3021.3	3014.2	3285.6	3559.8	3658.8	3170.6	3128.9	3015.5	3070.0	3014.2	3348.7
65°	2746.9	2782.9	3354.5	3690.4	3963.3	3467.8	3417.6	3240.9	3245.2	3207.9	3739.3
67.5°	2685.3	2704.0	3164.9	3831.2	4183.0	3768.0	3720.6	3501.0	3449.2	3452.0	3970.5
70°	2531.7	2560.3	2929.5	3821.1	4356.7	4168.7	4121.2	3882.8	3757.9	3618.6	3792.5
72.5°	1934.2	1983.1	2468.5	3350.0	4309.3	4692.7	4679.8	4366.8	3881.4	3322.8	2869.0
75°	654.9	653.3	1296.7	2250.2	3871.3	4853.6	4879.5	4306.5	3386.0	2291.8	1424.5
77.5°	140.8	142.1	267.1	911.8	2571.8	3897.2	3996.3	3248.2	2184.0	1021.0	325.9
80°	68.9	70.3	110.6	241.3	1028.2	2185.5	2340.7	1669.9	806.9	203.9	54.5
82.5°	34.5	35.9	57.4	127.7	380.5	776.9	830.0	614.6	231.3	114.9	27.3
85°	12.9	12.9	28.7	76.0	173.7	182.4	223.9	178.0	139.2	93.3	7.1
87.5°	2.9	2.9	15.8	37.3	77.6	57.4	57.4	54.5	84.7	63.2	2.9
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°	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0
2.5°	647.6	641.8	631.8	621.7	614.6	605.9	601.7	597.4	595.9	594.5	597.4
5°	640.4	631.8	613.2	597.4	583.0	571.5	562.9	554.3	550.0	547.1	548.5
7.5°	640.4	627.6	600.2	575.9	552.8	528.5	503.9	485.4	471.0	462.4	463.9
10°	647.6	630.4	594.5	561.5	518.4	466.7	413.6	373.3	346.0	330.2	330.2
12.5°	663.4	640.4	595.9	544.3	471.0	380.5	300.2	251.3	231.3	219.6	221.2
15°	685.0	657.6	603.1	521.2	405.0	282.8	209.7	178.0	178.0	180.9	182.4
17.5°	709.4	679.2	608.8	486.8	320.2	202.5	165.2	162.2	166.5	173.7	173.7
20°	733.7	700.8	611.7	432.3	239.8	160.8	156.6	156.6	159.4	166.5	168.1
22.5°	764.0	728.0	608.8	364.7	179.5	152.3	150.7	150.7	150.7	159.4	159.4
25°	795.4	759.6	597.4	292.9	152.3	146.5	145.0	143.5	143.5	150.7	152.3
27.5°	831.4	792.7	570.1	223.9	143.5	140.8	139.2	136.5	136.5	142.1	142.1
30°	867.4	830.0	528.5	169.4	136.5	134.9	132.1	129.3	126.3	132.1	132.1
32.5°	906.1	868.8	473.9	134.9	126.3	126.3	125.0	120.6	117.8	120.6	122.1
35°	957.9	913.2	412.1	117.8	113.5	113.5	113.5	112.0	106.3	109.1	109.1
37.5°	1026.8	975.0	340.3	109.1	103.3	100.5	100.5	100.5	96.2	97.6	97.6
40°	1114.3	1046.9	271.4	102.0	96.2	89.0	86.1	87.6	84.7	84.7	83.4
42.5°	1233.6	1124.4	203.9	96.2	90.5	80.4	74.6	73.2	70.3	68.9	68.9
45°	1404.4	1219.1	146.5	90.5	86.1	70.3	64.6	60.2	53.1	48.8	48.8
47.5°	1625.6	1326.8	109.1	84.7	81.8	61.8	54.5	46.0	35.9	33.1	33.1
50°	1895.5	1447.4	91.8	76.0	74.6	54.5	43.1	30.2	20.1	17.2	18.7
52.5°	2158.3	1561.0	81.8	67.6	66.0	47.4	31.6	15.8	8.7	8.7	8.7
55°	2379.4	1641.4	74.6	60.2	57.4	37.3	17.2	7.1	4.3	4.3	4.3
57.5°	2579.0	1687.2	67.6	53.1	46.0	25.8	7.1	2.9	2.9	1.4	1.4
60°	2761.4	1714.5	58.8	46.0	35.9	14.4	2.9	1.4	1.4	0.0	0.0
62.5°	2941.0	1734.6	50.2	37.3	27.3	5.7	1.4	1.4	0.0	0.0	0.0
65°	3077.2	1727.5	40.2	30.2	17.2	2.9	1.4	0.0	0.0	0.0	0.0
67.5°	3073.0	1629.9	30.2	22.9	8.7	1.4	0.0	0.0	0.0	0.0	0.0
70°	2748.5	1372.8	20.1	14.4	2.9	1.4	0.0	0.0	0.0	0.0	0.0
72.5°	1950.0	880.2	12.9	8.7	1.4	0.0	0.0	0.0	0.0	0.0	0.0
75°	858.7	267.1	7.1	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	168.1	61.8	4.3	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	40.2	7.1	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	17.2	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.3	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.9	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)