

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: P265966

Luminaire Tested: **ARCH-AF24-70-D-U-T4W-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265966
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-AF24-70-D-U-T4W-7027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 930mA 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: 5186.2 lumens
Efficiency: N/A
Efficacy: 70.1 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): 74
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

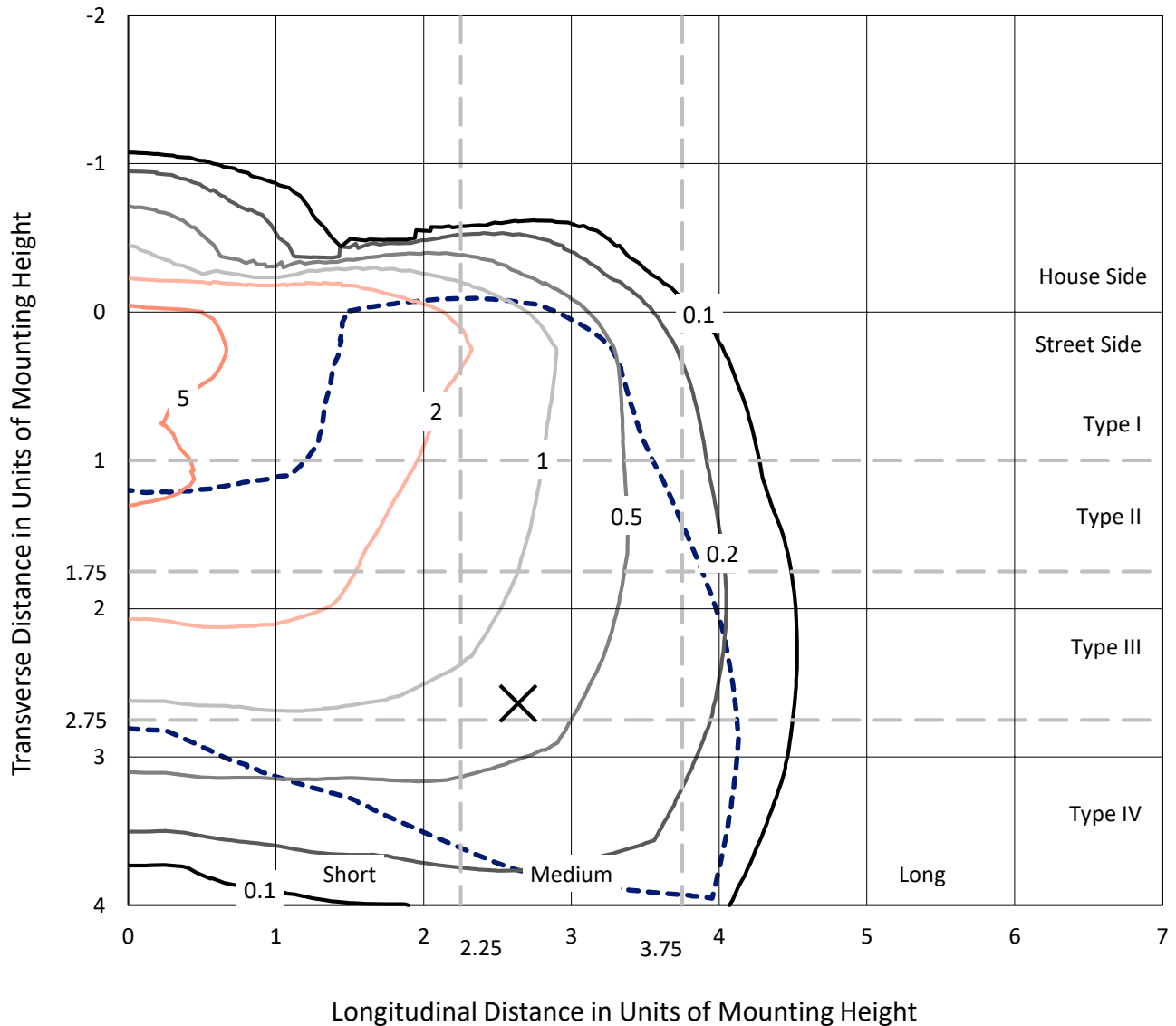


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

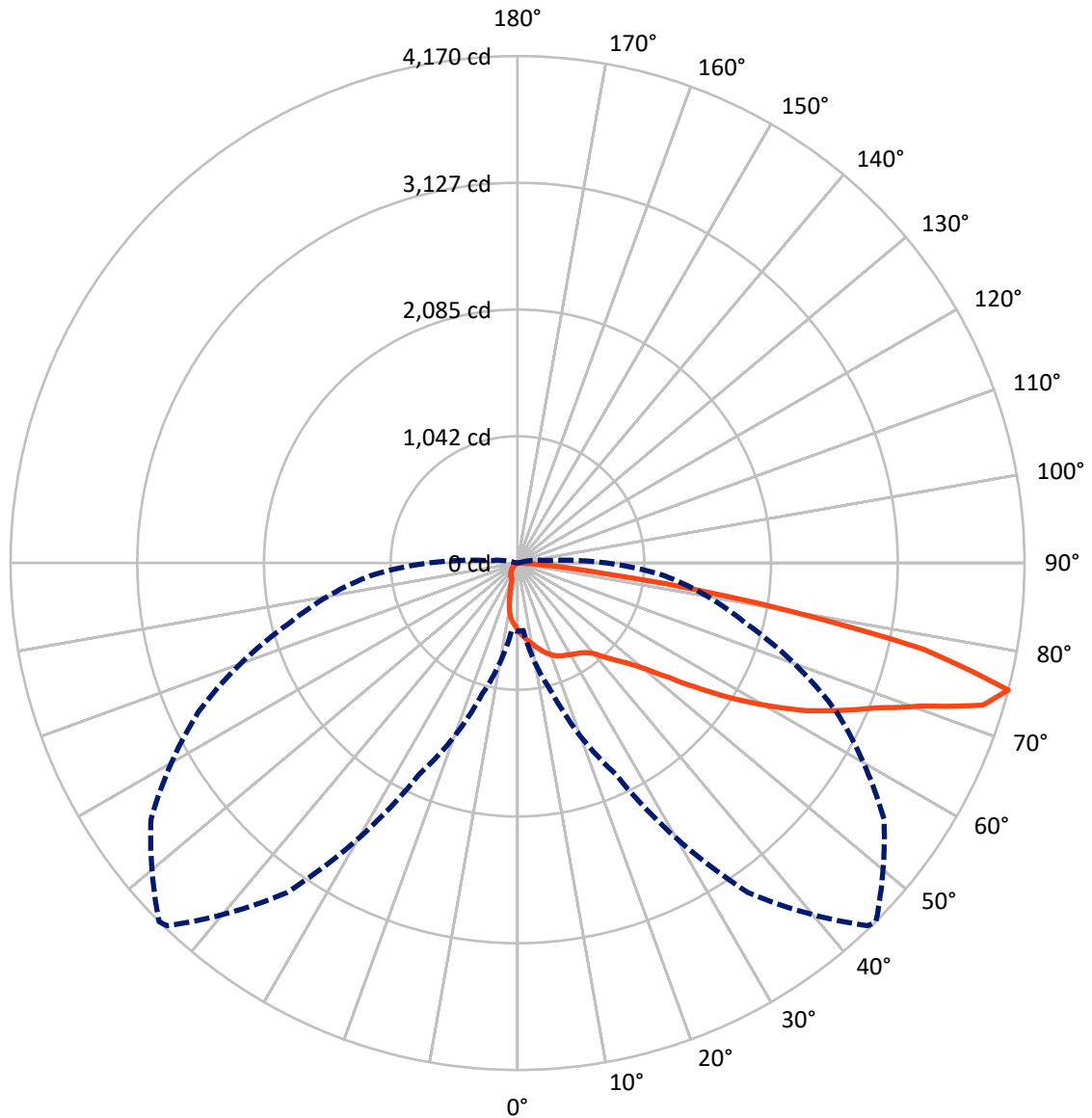


Based on 10 foot mounting height. Maximum calculated value = 7.4 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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

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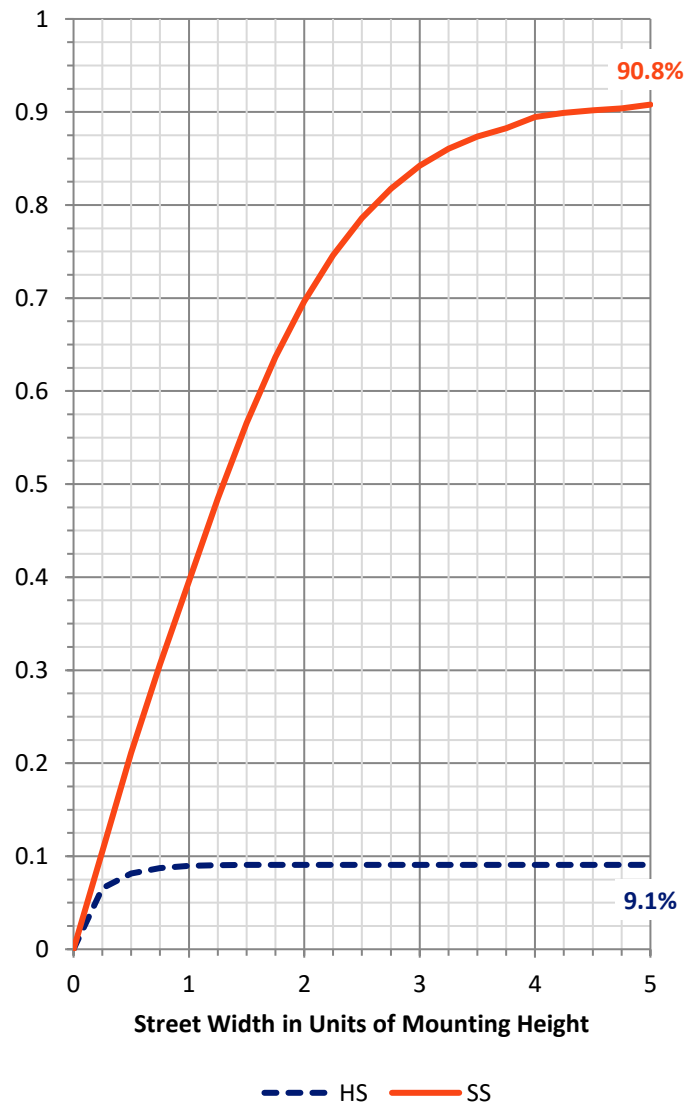
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	474.4	0.0	474.4
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	4711.8	0.0	4711.8
	% Fixture	90.9	0.0	90.9
Total	Lumens	5186.2	0.0	5186.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.3	1.0
10°-20°	148.3	2.9
20°-30°	245.6	4.7
30°-40°	355.5	6.9
40°-50°	582.1	11.2
50°-60°	1037.1	20.0
60°-70°	1524.7	29.4
70°-80°	1150.3	22.2
80°-90°	90.2	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°	5186.2	100.0
0°-180°	5186.2	100.0



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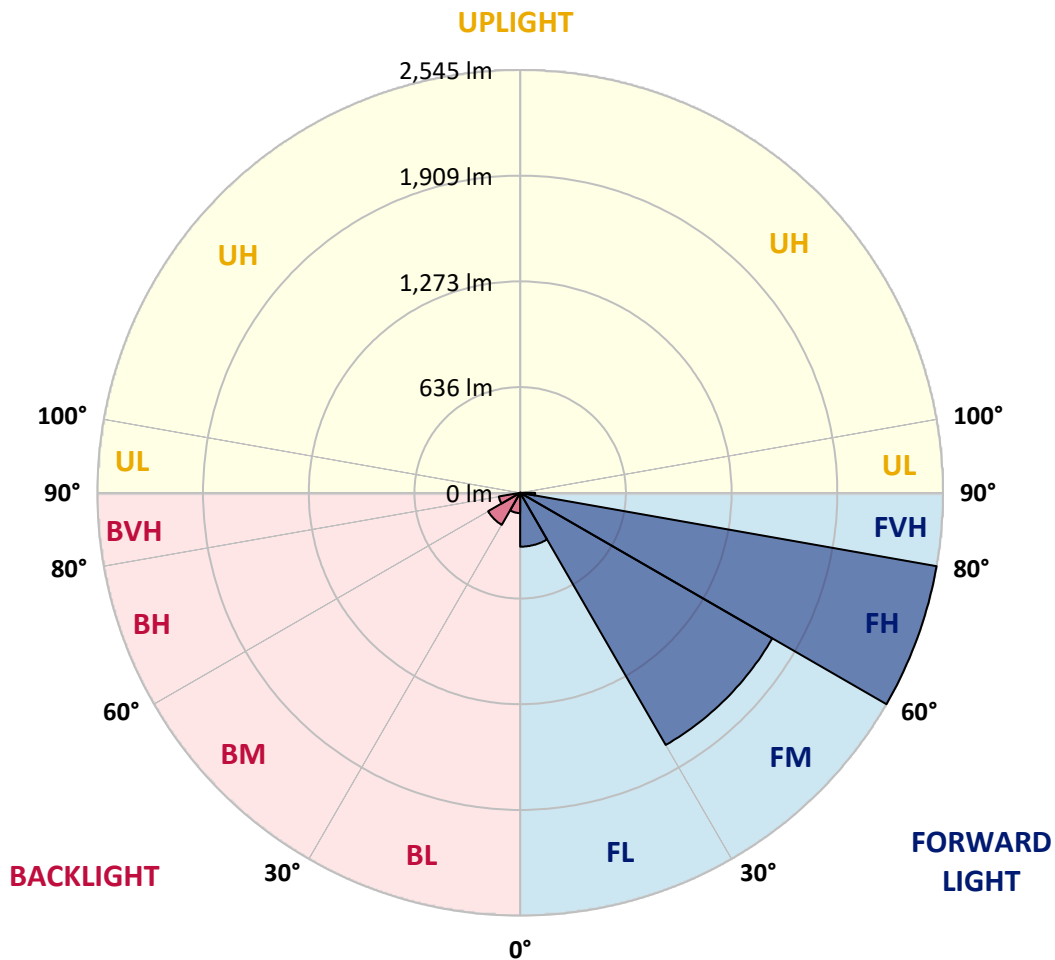
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	324.4	6.3			
FM	(30°-60°)	1752.4	33.8			
FH	(60°-80°)	2545.0	49.1			G2/5000
FVH	(80°-90°)	90.0	1.7			G1/100
BL	(0°-30°)	121.9	2.4	B1/500		
BM	(30°-60°)	222.3	4.3	B1/1000		
BH	(60°-80°)	129.9	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°	554.8	554.8	554.8	554.8	554.8	554.8	554.8	554.8	554.8	554.8	554.8
2.5°	602.6	602.6	601.3	600.1	594.0	587.9	586.7	582.9	572.0	564.6	557.2
5°	652.9	654.1	651.6	645.5	632.0	618.6	617.2	607.4	586.7	572.0	556.0
7.5°	700.7	703.2	697.1	685.9	670.0	650.5	649.1	630.8	603.8	582.9	559.6
10°	741.2	741.2	732.7	719.2	701.9	681.0	678.6	657.7	627.0	601.3	570.7
12.5°	785.4	784.2	772.0	753.5	733.8	714.2	713.0	687.3	657.7	624.6	586.7
15°	825.9	823.4	807.4	790.2	769.5	748.6	747.4	721.6	690.8	651.6	609.9
17.5°	848.0	846.7	832.0	814.9	797.7	781.7	780.4	753.5	720.4	679.8	633.2
20°	851.7	852.9	840.6	825.9	816.1	807.4	807.4	783.0	747.4	704.5	657.7
22.5°	852.9	856.5	848.0	828.3	825.9	827.1	829.6	809.9	773.1	732.7	683.5
25°	861.5	866.3	860.2	837.0	834.4	843.1	845.6	837.0	803.9	763.3	713.0
27.5°	878.6	883.6	878.6	849.2	845.6	854.1	856.5	861.5	837.0	792.8	743.6
30°	913.0	914.2	903.2	866.3	859.0	870.1	873.7	887.3	867.7	821.1	773.1
32.5°	973.1	960.8	927.8	878.6	872.6	884.8	888.5	903.2	895.8	848.0	803.9
35°	1095.9	1032.1	955.9	895.8	889.7	902.0	906.8	927.8	931.5	886.0	841.8
37.5°	1094.7	1037.0	1022.2	928.9	920.5	928.9	935.1	960.8	975.6	936.4	897.0
40°	1172.0	1147.5	1147.5	991.5	963.3	975.6	981.8	1007.4	1033.3	1002.6	962.2
42.5°	1414.9	1399.0	1381.9	1111.8	1023.4	1057.8	1061.4	1077.4	1108.1	1098.4	1050.5
45°	1686.2	1671.4	1605.1	1315.6	1126.6	1132.8	1141.2	1167.1	1211.3	1229.6	1173.1
47.5°	1898.5	1883.7	1827.3	1561.0	1287.4	1233.4	1233.4	1283.7	1352.4	1399.0	1345.0
50°	2069.1	2051.9	2017.6	1822.4	1551.2	1378.1	1370.8	1429.7	1531.5	1604.0	1567.2
52.5°	2234.8	2184.4	2163.5	2092.3	1849.4	1587.9	1568.4	1610.0	1751.2	1840.7	1810.1
55°	2345.1	2337.7	2315.7	2340.3	2162.3	1843.2	1826.1	1834.7	2011.3	2071.5	2033.5
57.5°	2448.2	2447.1	2496.1	2610.3	2503.4	2135.4	2108.3	2094.8	2262.9	2248.2	2281.3
60°	2575.9	2553.8	2667.8	2831.1	2816.4	2420.0	2389.3	2362.4	2455.5	2413.8	2578.3
62.5°	2582.0	2575.9	2807.8	3042.2	3126.9	2709.6	2674.1	2577.1	2623.7	2575.9	2861.8
65°	2347.6	2378.4	2866.8	3153.9	3387.0	2963.7	2920.7	2769.7	2773.4	2741.5	3195.6
67.5°	2294.8	2310.8	2704.6	3274.1	3574.7	3220.2	3179.6	2991.9	2947.7	2950.2	3393.2
70°	2163.5	2188.1	2503.4	3265.5	3723.3	3562.5	3522.1	3318.2	3211.5	3092.4	3240.9
72.5°	1653.1	1694.7	2109.5	2863.0	3682.8	4010.5	3999.3	3731.9	3317.1	2839.7	2452.0
75°	559.6	558.3	1108.1	1923.0	3308.5	4147.8	4169.9	3680.4	2893.7	1958.6	1217.4
77.5°	120.3	121.5	228.3	779.3	2198.0	3330.6	3415.3	2775.9	1866.6	872.6	278.6
80°	58.8	60.1	94.5	206.3	878.6	1867.8	2000.3	1427.1	689.7	174.2	46.6
82.5°	29.5	30.7	49.0	109.2	325.1	663.8	709.3	525.1	197.5	98.2	23.4
85°	11.0	11.0	24.6	65.0	148.5	155.9	191.5	152.2	119.0	79.8	6.2
87.5°	2.4	2.4	13.6	31.9	66.3	49.0	49.0	46.6	72.5	54.0	2.4
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°	554.8	554.8	554.8	554.8	554.8	554.8	554.8	554.8	554.8	554.8	554.8
2.5°	553.4	548.5	539.9	531.3	525.1	517.9	514.2	510.4	509.2	508.0	510.4
5°	547.3	539.9	524.0	510.4	498.2	488.4	481.0	473.6	470.1	467.6	468.7
7.5°	547.3	536.3	512.9	492.1	472.5	451.6	430.7	414.7	402.5	395.2	396.4
10°	553.4	538.8	508.0	479.9	443.0	398.8	353.5	319.1	295.7	282.2	282.2
12.5°	567.0	547.3	509.2	465.1	402.5	325.1	256.5	214.8	197.5	187.7	189.1
15°	585.3	562.1	515.4	445.5	346.0	241.7	179.1	152.2	152.2	154.6	155.9
17.5°	606.3	580.5	520.3	416.1	273.7	173.1	141.2	138.7	142.3	148.5	148.5
20°	627.0	598.9	522.8	369.5	205.0	137.4	133.8	133.8	136.3	142.3	143.5
22.5°	652.9	622.2	520.3	311.7	153.4	130.1	128.8	128.8	128.8	136.3	136.3
25°	679.8	649.1	510.4	250.4	130.1	125.1	124.0	122.7	122.7	128.8	130.1
27.5°	710.5	677.4	487.2	191.5	122.7	120.3	119.0	116.6	116.6	121.5	121.5
30°	741.2	709.3	451.6	144.7	116.6	115.3	112.8	110.4	107.9	112.8	112.8
32.5°	774.3	742.4	405.0	115.3	107.9	107.9	106.8	103.0	100.6	103.0	104.4
35°	818.5	780.4	352.1	100.6	96.9	96.9	96.9	95.7	90.8	93.2	93.2
37.5°	877.5	833.3	290.8	93.2	88.4	85.9	85.9	85.9	82.3	83.5	83.5
40°	952.4	894.6	231.9	87.1	82.3	76.0	73.7	74.9	72.5	72.5	71.1
42.5°	1054.2	960.8	174.2	82.3	77.3	68.7	63.8	62.6	60.1	58.8	58.8
45°	1200.1	1041.9	125.1	77.3	73.7	60.1	55.2	51.6	45.5	41.7	41.7
47.5°	1389.1	1133.9	93.2	72.5	70.0	52.8	46.6	39.3	30.7	28.2	28.2
50°	1619.9	1237.0	78.5	65.0	63.8	46.6	36.8	25.8	17.2	14.7	16.0
52.5°	1844.5	1334.0	70.0	57.8	56.5	40.6	26.9	13.6	7.4	7.4	7.4
55°	2033.5	1402.7	63.8	51.6	49.0	31.9	14.7	6.2	3.8	3.8	3.8
57.5°	2204.0	1441.9	57.8	45.5	39.3	22.1	6.2	2.4	2.4	1.3	1.3
60°	2359.8	1465.2	50.3	39.3	30.7	12.2	2.4	1.3	1.3	0.0	0.0
62.5°	2513.3	1482.5	42.9	31.9	23.4	4.9	1.3	1.3	0.0	0.0	0.0
65°	2629.9	1476.4	34.3	25.8	14.7	2.4	1.3	0.0	0.0	0.0	0.0
67.5°	2626.1	1392.8	25.8	19.7	7.4	1.3	0.0	0.0	0.0	0.0	0.0
70°	2348.8	1173.1	17.2	12.2	2.4	1.3	0.0	0.0	0.0	0.0	0.0
72.5°	1666.5	752.3	11.0	7.4	1.3	0.0	0.0	0.0	0.0	0.0	0.0
75°	733.8	228.3	6.2	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	143.5	52.8	3.8	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	34.3	6.2	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	14.7	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.4	1.3	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)