

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: P265942

Luminaire Tested: **ARCH-AF24-50-D-U-T2R-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265942
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF24-50-D-U-T2R-7027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 670mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4457.9 lumens
Efficiency: N/A
Efficacy: 82.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B0 - U0 - G1

Input Watts (W): 54
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

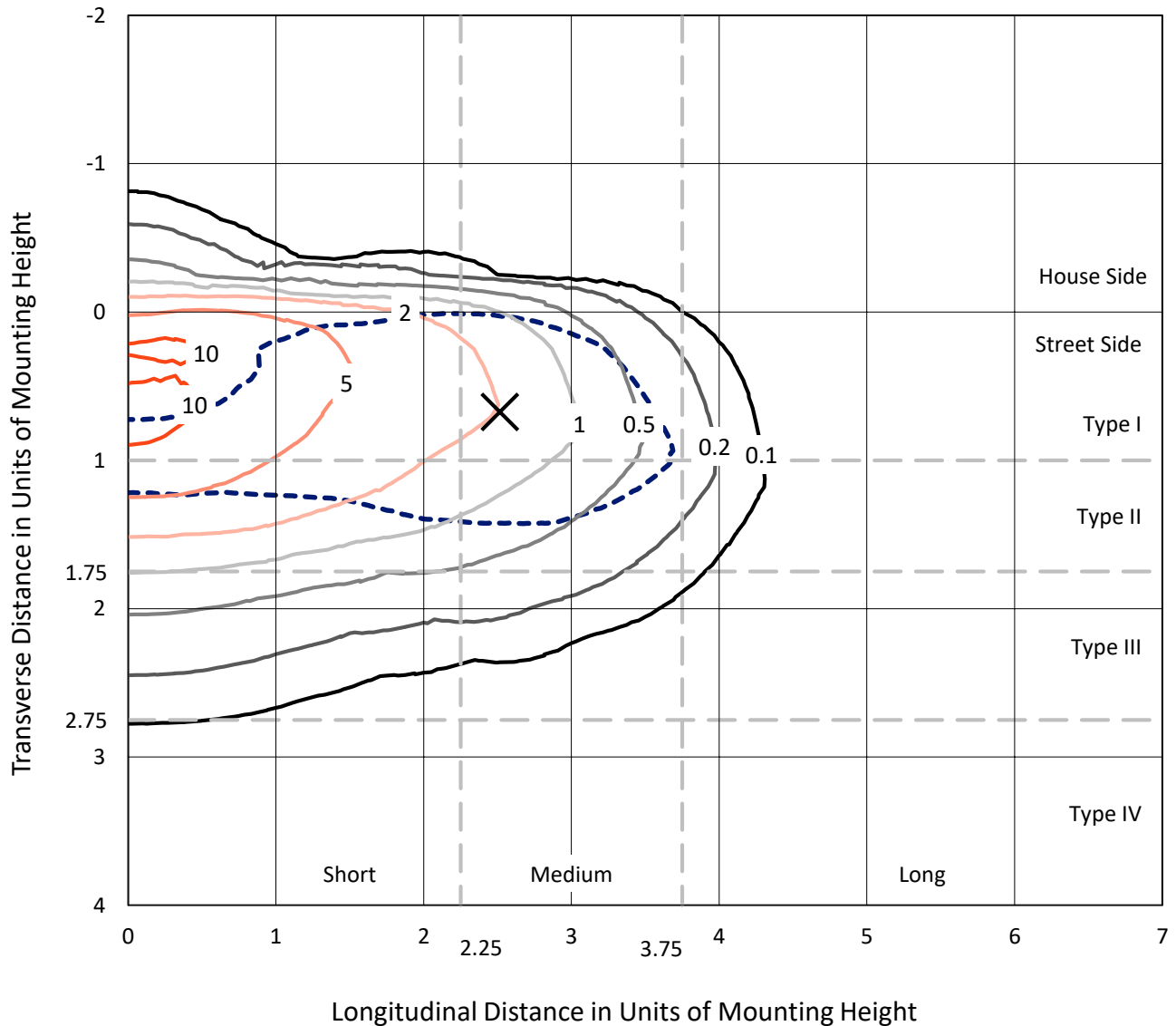


REPORT NUMBER: P265942

CATALOG NUMBER: ARCH-AF24-50-D-U-T2R-7027-HSS

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

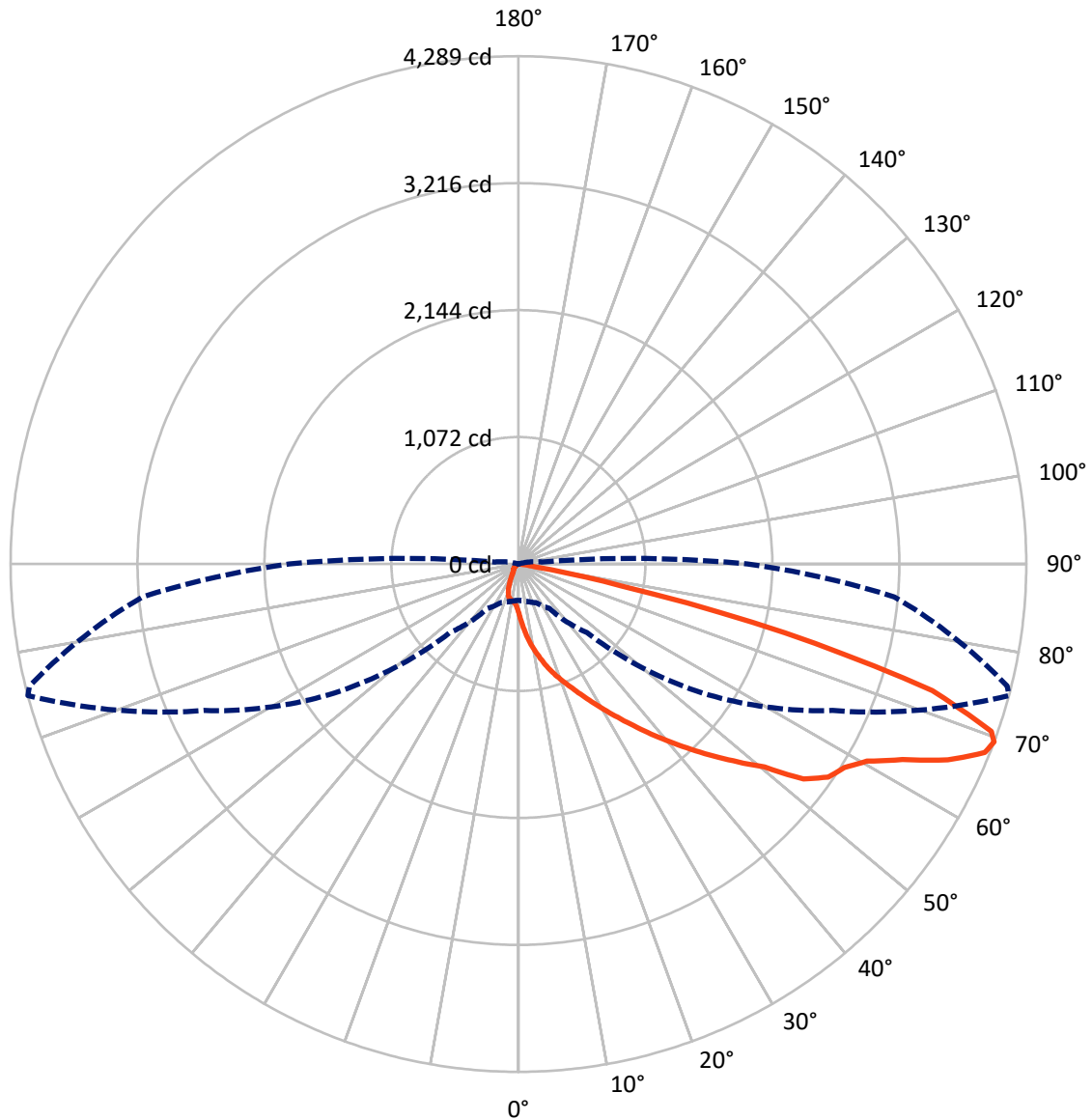


Based on 10 foot mounting height. Maximum calculated value = 11.4 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P265942

CATALOG NUMBER: ARCH-AF24-50-D-U-T2R-7027-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P265942

CATALOG NUMBER: ARCH-AF24-50-D-U-T2R-7027-HSS

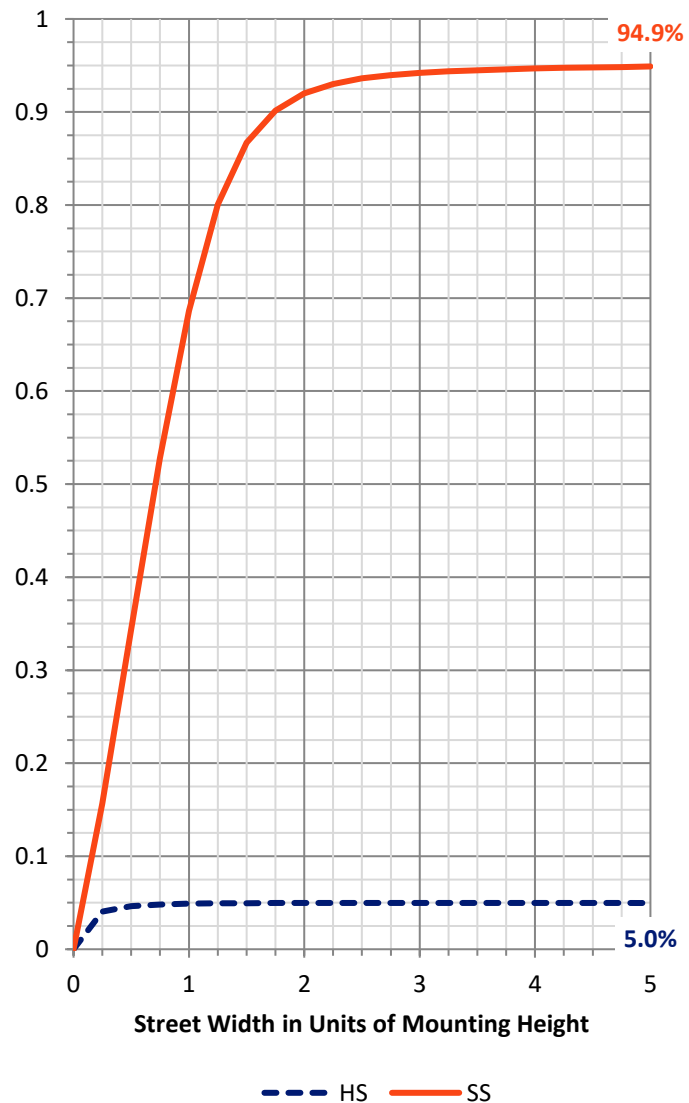
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	222.4	0.0	222.4
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	4235.5	0.0	4235.5
	% Fixture	95.0	0.0	95.0
Total	Lumens	4457.9	0.0	4457.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.4	1.1
10°-20°	172.9	3.9
20°-30°	330.1	7.4
30°-40°	592.2	13.3
40°-50°	907.3	20.4
50°-60°	1054.4	23.7
60°-70°	933.7	20.9
70°-80°	402.8	9.0
80°-90°	16.1	0.4
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°	4457.9	100.0
0°-180°	4457.9	100.0

Coefficient of Utilization



REPORT NUMBER: P265942

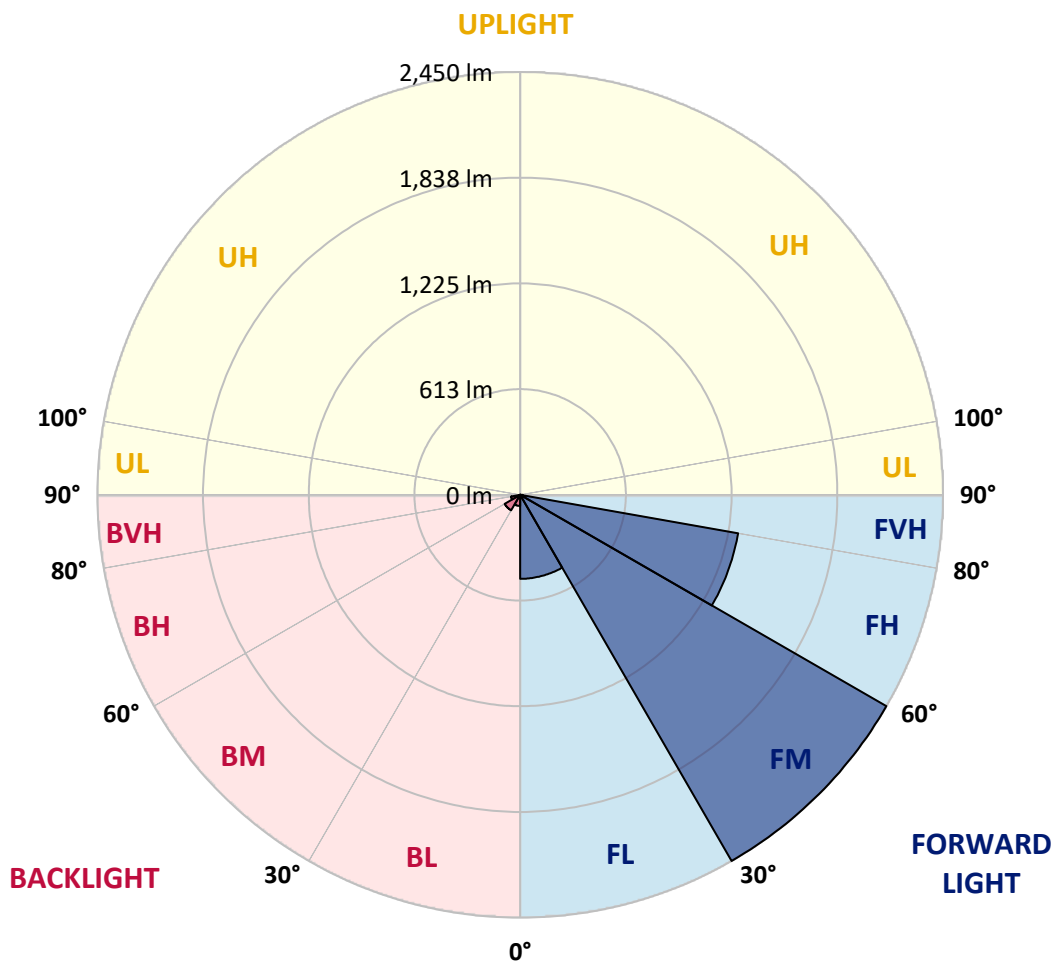
CATALOG NUMBER: ARCH-AF24-50-D-U-T2R-7027-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	486.8	10.9			
FM (30°-60°)	2450.2	55.0			
FH (60°-80°)	1282.6	28.8			G1/1800
FVH (80°-90°)	15.9	0.4			G1/100
BL (0°-30°)	64.6	1.4	B0/110		
BM (30°-60°)	103.7	2.3	B0/220		
BH (60°-80°)	53.9	1.2	B0/110		G0/110
BVH (80°-90°)	0.2	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type II Medium





REPORT NUMBER: P265942

CATALOG NUMBER: ARCH-AF24-50-D-U-T2R-7027-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	414.7	414.7	414.7	414.7	414.7	414.7	414.7	414.7	414.7	414.7	414.7
2.5°	683.3	676.7	669.9	662.1	644.9	615.0	577.4	537.0	487.1	478.3	438.0
5°	829.7	826.7	820.1	809.5	790.1	757.5	715.1	655.5	571.7	557.3	471.6
7.5°	932.6	930.6	924.9	912.4	895.0	862.4	818.0	753.6	656.4	640.0	513.9
10°	1025.0	1024.0	1019.1	1007.7	990.3	954.7	907.6	840.2	737.1	719.0	563.0
12.5°	1108.7	1109.6	1107.8	1102.0	1089.5	1055.8	1001.9	928.8	815.2	795.0	621.7
15°	1157.7	1160.7	1168.3	1180.0	1183.7	1156.8	1101.1	1020.1	895.0	877.7	689.1
17.5°	1141.4	1144.4	1168.3	1207.9	1245.4	1249.3	1199.1	1106.8	974.0	956.7	755.6
20°	1102.0	1105.9	1130.8	1184.8	1257.8	1308.9	1288.7	1201.2	1049.0	1027.9	819.1
22.5°	1146.2	1146.2	1154.0	1186.8	1253.0	1332.9	1359.9	1295.4	1126.0	1100.1	882.6
25°	1298.3	1295.4	1279.0	1265.6	1286.7	1358.0	1413.8	1391.7	1216.6	1186.8	949.9
27.5°	1490.7	1504.3	1473.5	1424.4	1376.3	1407.0	1461.9	1487.0	1316.6	1285.8	1019.1
30°	1706.4	1712.2	1675.6	1610.1	1525.4	1495.6	1518.8	1568.8	1425.3	1391.7	1091.4
32.5°	1900.9	1896.0	1865.2	1796.8	1692.0	1627.5	1591.8	1634.1	1543.7	1505.2	1165.6
35°	2073.1	2076.9	2039.4	1960.5	1857.4	1789.2	1704.4	1708.2	1676.5	1632.3	1251.2
37.5°	2228.1	2221.2	2185.7	2106.7	2013.5	1939.4	1849.8	1785.3	1821.9	1775.7	1347.4
40°	2354.1	2347.4	2309.8	2232.8	2145.2	2084.5	2014.4	1888.2	1975.0	1922.0	1450.4
42.5°	2454.2	2446.4	2414.7	2340.7	2256.0	2202.0	2168.4	2015.3	2138.5	2085.5	1565.8
45°	2503.2	2496.5	2477.3	2421.4	2347.4	2300.2	2316.5	2161.6	2313.7	2269.4	1692.9
47.5°	2445.5	2442.6	2464.8	2455.2	2412.8	2387.8	2444.6	2321.4	2497.5	2454.2	1839.2
50°	2270.3	2275.1	2339.6	2419.6	2439.7	2469.6	2549.5	2489.8	2694.7	2648.7	2007.6
52.5°	1838.2	1871.0	2065.4	2257.8	2407.0	2519.7	2672.6	2730.4	3016.1	2971.1	2270.3
55°	1372.4	1385.8	1597.6	1926.8	2275.1	2515.8	2764.1	2871.9	3175.0	3128.8	2339.6
57.5°	1088.4	1093.2	1198.2	1534.0	2003.8	2429.1	2812.2	2922.8	3244.3	3205.8	2442.6
60°	854.6	860.3	936.5	1167.3	1621.7	2195.3	2743.0	2967.1	3380.1	3349.2	2622.6
62.5°	665.0	670.9	716.9	852.8	1216.6	1835.3	2603.4	3038.3	3638.0	3623.6	2917.1
65°	514.9	516.9	548.5	612.1	859.5	1445.6	2433.0	3104.8	3986.4	3973.8	3155.7
67.5°	380.2	383.0	405.1	444.7	580.3	1038.4	2153.9	3053.8	4249.2	4212.5	3242.4
69°	307.0	309.8	329.1	360.8	458.1	818.0	1898.8	2927.7	4288.6	4254.0	3187.5
70°	262.8	264.7	284.0	310.9	390.8	694.8	1696.8	2818.9	4236.5	4202.9	3062.4
72.5°	168.4	178.0	197.3	214.7	258.9	460.0	1145.2	2337.7	3655.4	3597.5	2398.4
75°	93.3	96.3	131.0	152.1	172.2	299.3	637.1	1458.0	2325.3	2284.7	1282.9
77.5°	77.0	79.0	92.3	115.5	115.5	167.4	240.6	574.6	884.6	797.9	347.5
80°	53.9	55.9	70.2	76.0	82.7	94.3	78.0	126.1	136.6	121.4	52.0
82.5°	37.5	39.4	48.1	62.5	66.5	44.2	28.8	37.5	39.4	39.4	20.2
85°	6.7	9.6	35.7	52.0	39.4	13.5	16.3	13.5	12.4	13.5	4.9
87.5°	0.0	0.0	22.2	25.1	21.2	5.7	6.7	4.9	2.9	3.9	1.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P265942

CATALOG NUMBER: ARCH-AF24-50-D-U-T2R-7027-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	414.7	414.7	414.7	414.7	414.7	414.7	414.7	414.7	414.7	414.7	414.7
2.5°	417.7	397.5	362.8	337.9	316.7	300.3	293.6	283.0	275.2	279.2	274.3
5°	429.2	393.6	337.9	302.2	277.1	255.9	238.7	225.2	214.7	212.7	210.7
7.5°	447.5	396.5	323.4	279.2	241.6	208.9	181.8	161.7	146.2	146.2	140.6
10°	472.6	404.1	314.8	255.9	200.2	155.9	128.9	109.8	102.0	101.1	99.2
12.5°	507.3	418.7	307.9	226.2	155.9	113.5	97.1	90.5	87.6	86.6	85.7
15°	554.3	439.8	300.3	189.6	118.3	93.3	86.6	80.8	78.0	77.0	76.0
17.5°	599.6	459.0	284.0	152.1	96.3	84.7	77.0	72.1	68.4	67.4	67.4
20°	641.8	475.5	255.9	118.3	86.6	76.0	68.4	62.5	58.7	57.8	57.8
22.5°	686.2	488.9	221.3	96.3	79.0	67.4	59.6	53.9	50.0	49.0	48.1
25°	733.3	498.5	181.8	85.7	71.2	59.6	51.1	46.3	43.3	42.3	41.4
27.5°	784.4	502.4	144.4	78.0	62.5	52.0	44.2	39.4	37.5	36.7	36.7
30°	830.6	498.5	111.6	69.3	54.8	45.3	38.4	34.7	32.7	31.8	31.8
32.5°	878.7	488.9	89.6	61.7	48.1	38.4	32.7	29.9	28.8	27.8	27.8
35°	929.7	476.5	77.0	54.8	41.4	33.6	28.8	26.9	26.1	25.1	25.1
37.5°	989.4	461.0	70.2	49.0	36.7	29.9	25.1	24.1	23.0	23.0	23.0
40°	1056.8	441.7	65.4	44.2	32.7	26.1	22.2	21.2	20.2	20.2	20.2
42.5°	1127.9	419.6	60.6	39.4	28.8	22.2	19.3	19.3	18.2	18.2	17.3
45°	1207.9	397.5	55.9	34.7	25.1	19.3	16.3	15.5	15.5	14.5	14.5
47.5°	1302.2	377.3	51.1	30.8	22.2	16.3	14.5	13.5	12.4	11.6	11.6
50°	1435.0	375.3	45.3	26.9	20.2	13.5	11.6	10.6	9.6	8.7	8.7
52.5°	1566.9	358.1	38.4	22.2	16.3	11.6	8.7	7.6	6.7	6.7	5.7
55°	1596.6	329.1	33.6	19.3	12.4	8.7	6.7	4.9	4.9	3.9	3.9
57.5°	1662.1	315.7	28.8	15.5	9.6	6.7	3.9	2.9	2.9	2.9	2.9
60°	1791.1	311.8	25.1	13.5	6.7	4.9	2.9	1.9	1.9	1.0	1.0
62.5°	1969.2	307.9	21.2	11.6	4.9	2.9	1.9	1.0	0.0	0.0	0.0
65°	2067.3	282.0	17.3	8.7	3.9	2.9	1.0	0.0	0.0	0.0	0.0
67.5°	2041.3	232.9	15.5	5.7	2.9	1.9	1.0	0.0	0.0	0.0	0.0
69°	1932.6	196.3	12.4	4.9	2.9	1.9	1.0	0.0	0.0	0.0	0.0
70°	1801.7	169.4	11.6	3.9	1.9	1.0	1.0	0.0	0.0	0.0	0.0
72.5°	1279.0	88.6	7.6	2.9	1.9	1.0	0.0	0.0	0.0	0.0	0.0
75°	597.6	39.4	4.9	1.9	1.0	1.0	0.0	0.0	0.0	0.0	0.0
77.5°	131.8	18.2	2.9	1.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	25.1	6.7	1.9	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	8.7	2.9	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.0	0.0	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)