

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: P234709

Luminaire Tested: **ARCH-AF24-100-D-U-T2R-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234709
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-AF24-100-D-U-T2R-8027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 1200mA 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: 5972 lumens
Efficiency: N/A
Efficacy: 62.2 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): 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

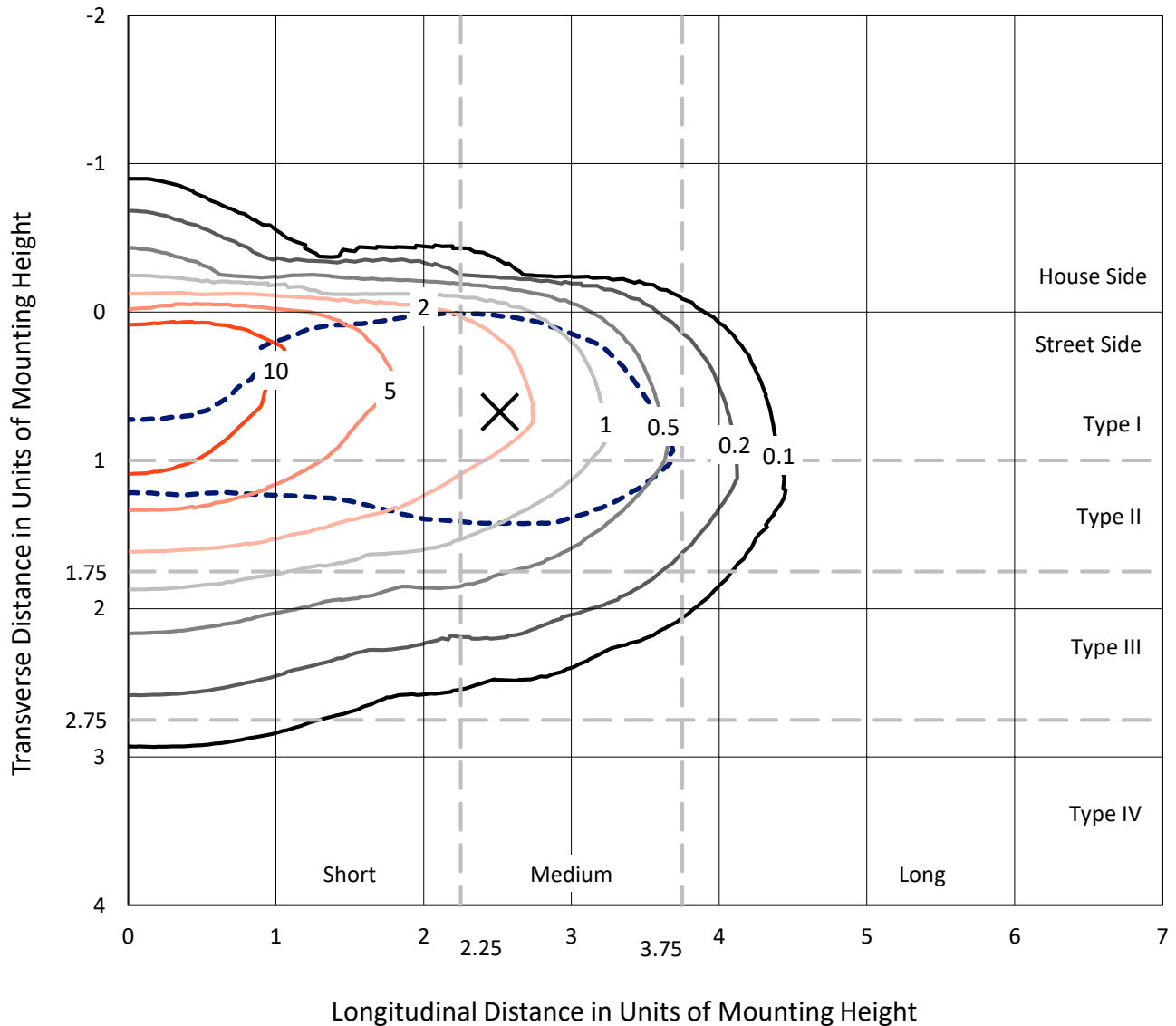


REPORT NUMBER: P234709

CATALOG NUMBER: ARCH-AF24-100-D-U-T2R-8027-HSS

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

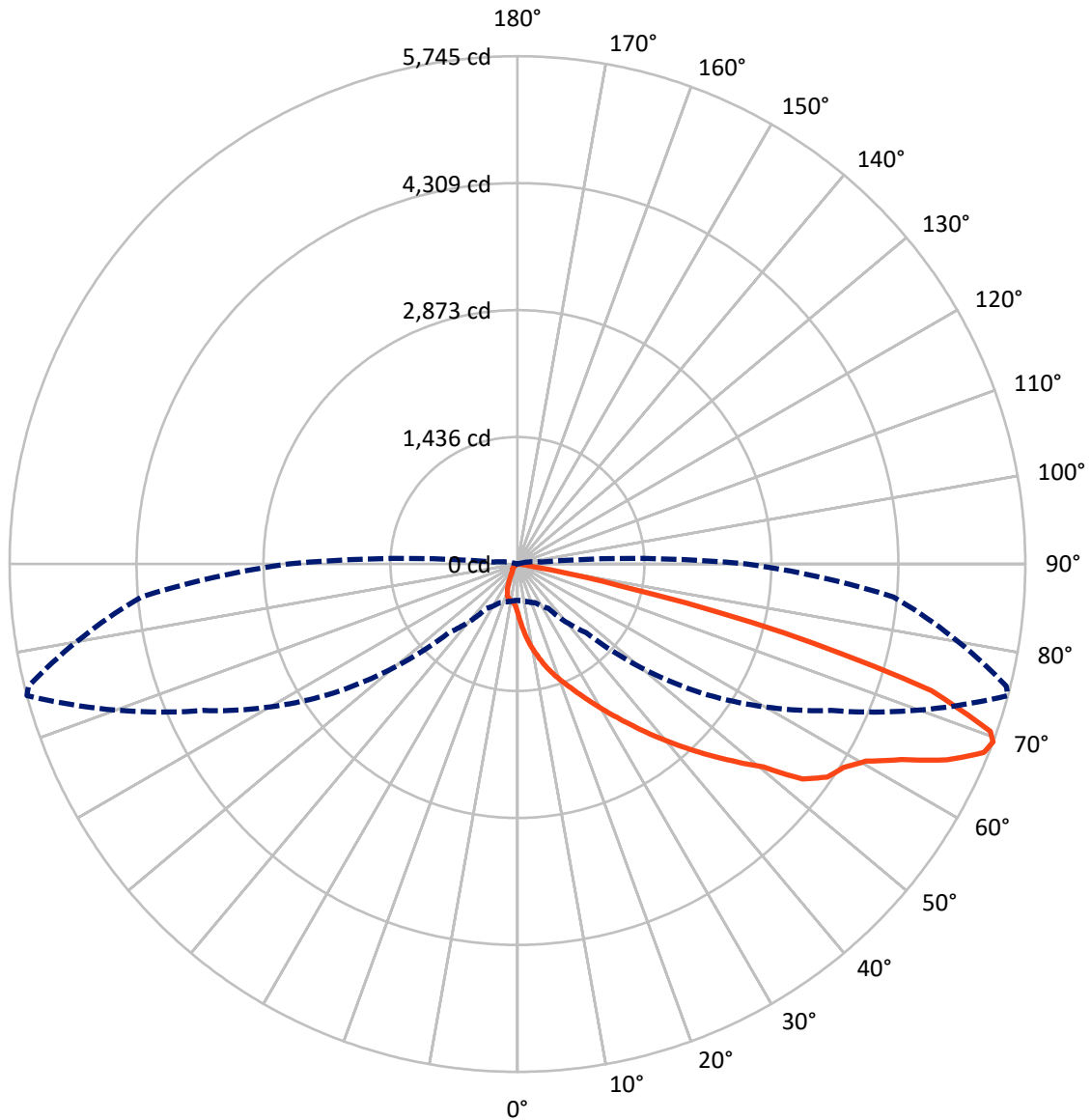


Based on 10 foot mounting height. Maximum calculated value = 15.2 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P234709

CATALOG NUMBER: ARCH-AF24-100-D-U-T2R-8027-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P234709

CATALOG NUMBER: ARCH-AF24-100-D-U-T2R-8027-HSS

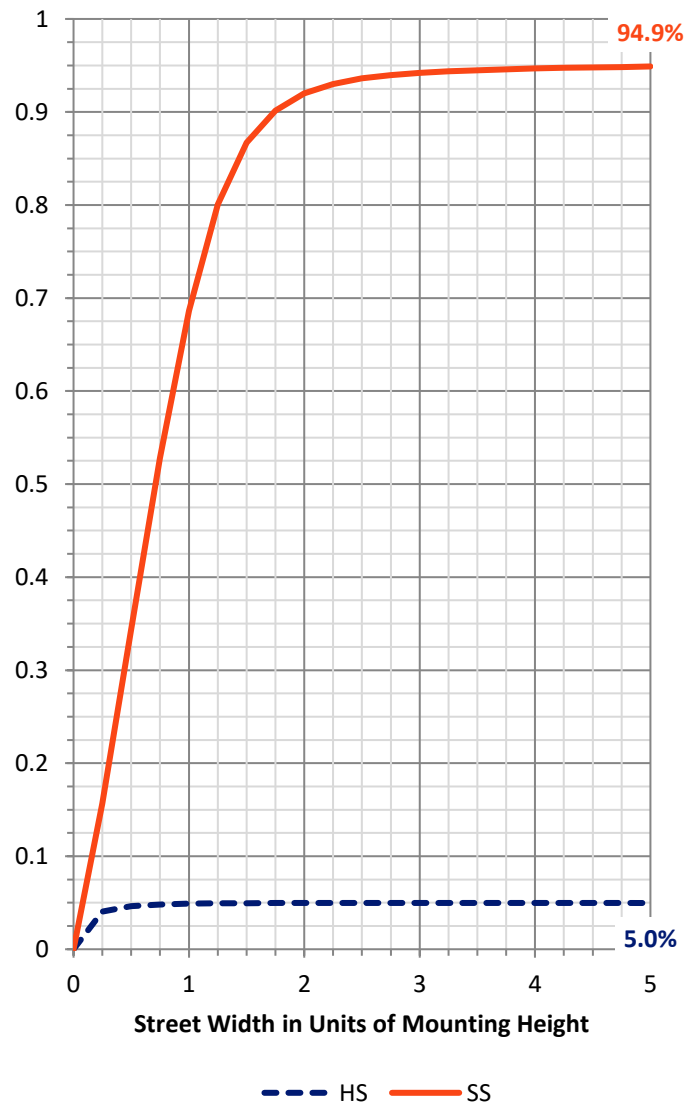
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	298.0	0.0	298.0
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	5674.0	0.0	5674.0
	% Fixture	95.0	0.0	95.0
Total	Lumens	5972.0	0.0	5972.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.8	1.1
10°-20°	231.7	3.9
20°-30°	442.2	7.4
30°-40°	793.3	13.3
40°-50°	1215.4	20.4
50°-60°	1412.6	23.7
60°-70°	1250.9	20.9
70°-80°	539.5	9.0
80°-90°	21.6	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°	5972.0	100.0
0°-180°	5972.0	100.0

Coefficient of Utilization



REPORT NUMBER: P234709

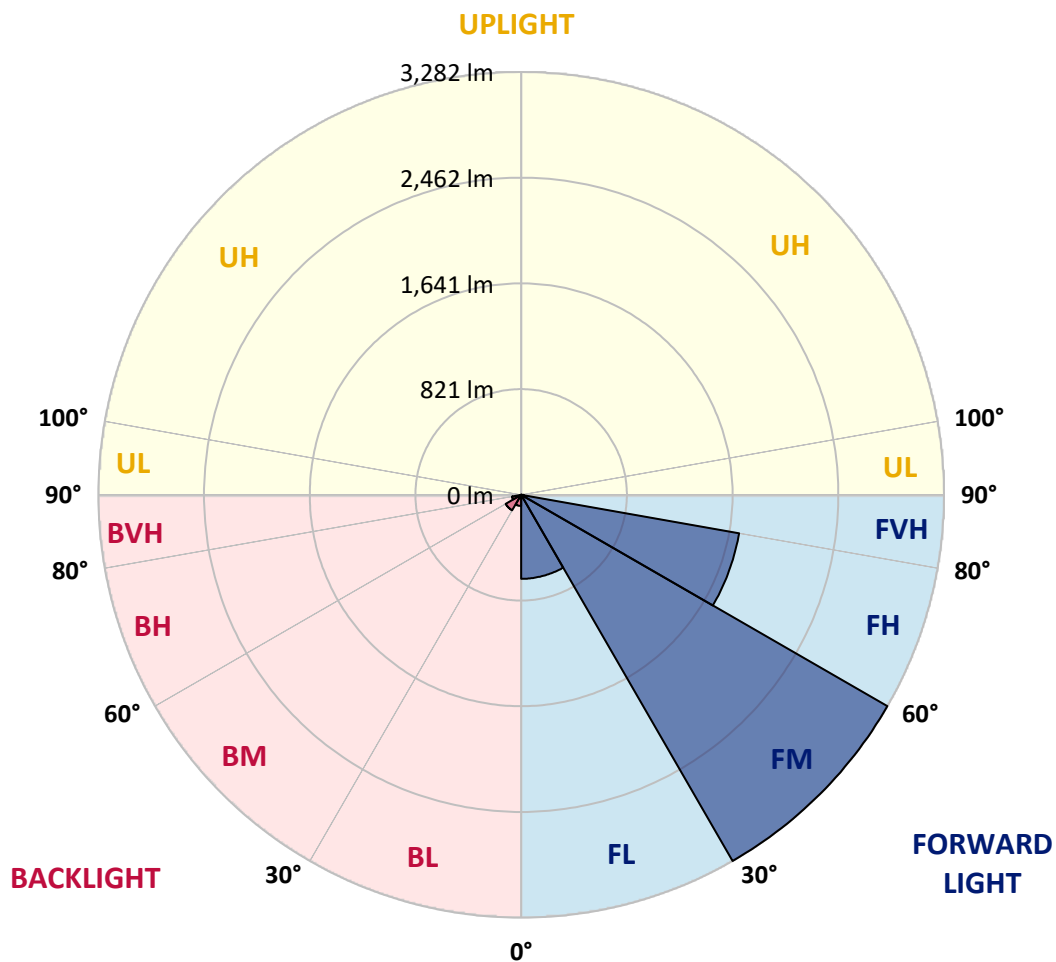
CATALOG NUMBER: ARCH-AF24-100-D-U-T2R-8027-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	652.2	10.9			
FM (30°-60°)	3282.4	55.0			
FH (60°-80°)	1718.2	28.8			G1/1800
FVH (80°-90°)	21.3	0.4			G1/100
BL (0°-30°)	86.5	1.4	B0/110		
BM (30°-60°)	138.9	2.3	B0/220		
BH (60°-80°)	72.2	1.2	B0/110		G0/110
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: B0-U0-G1

Type II Medium





REPORT NUMBER: P234709

CATALOG NUMBER: ARCH-AF24-100-D-U-T2R-8027-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	555.7	555.7	555.7	555.7	555.7	555.7	555.7	555.7	555.7	555.7	555.7
2.5°	915.4	906.4	897.4	887.0	863.8	823.9	773.6	719.4	652.4	640.8	586.6
5°	1111.4	1107.5	1098.5	1084.3	1058.5	1014.7	958.0	878.0	765.8	746.5	631.8
7.5°	1249.3	1246.8	1239.0	1222.3	1199.1	1155.2	1095.9	1009.5	879.3	857.4	688.5
10°	1373.1	1371.8	1365.4	1349.9	1326.7	1279.0	1215.8	1125.6	987.6	963.1	754.2
12.5°	1485.3	1486.6	1484.0	1476.3	1459.5	1414.4	1342.2	1244.2	1092.0	1065.0	832.9
15°	1551.0	1554.9	1565.2	1580.7	1585.9	1549.7	1475.0	1366.7	1199.1	1175.9	923.1
17.5°	1529.1	1533.0	1565.2	1618.1	1668.4	1673.5	1606.5	1482.7	1304.8	1281.6	1012.1
20°	1476.3	1481.4	1514.9	1587.1	1685.1	1753.5	1726.4	1609.1	1405.3	1377.0	1097.2
22.5°	1535.6	1535.6	1545.9	1589.7	1678.7	1785.7	1821.8	1735.4	1508.5	1473.7	1182.3
25°	1739.3	1735.4	1713.5	1695.4	1723.8	1819.2	1894.0	1864.3	1629.7	1589.7	1272.5
27.5°	1997.1	2015.2	1973.9	1908.2	1843.7	1885.0	1958.5	1992.0	1763.8	1722.5	1365.4
30°	2285.9	2293.7	2244.7	2157.0	2043.6	2003.6	2034.5	2101.6	1909.5	1864.3	1462.1
32.5°	2546.4	2539.9	2498.7	2407.1	2266.6	2180.2	2132.5	2189.2	2068.1	2016.5	1561.4
35°	2777.2	2782.3	2732.0	2626.3	2488.4	2396.8	2283.4	2288.5	2246.0	2186.7	1676.1
37.5°	2984.8	2975.7	2928.0	2822.3	2697.2	2598.0	2478.1	2391.7	2440.7	2378.8	1805.0
40°	3153.7	3144.6	3094.3	2991.2	2873.9	2792.6	2698.5	2529.6	2645.7	2574.8	1943.0
42.5°	3287.7	3277.4	3234.9	3135.6	3022.1	2949.9	2904.8	2699.8	2864.8	2793.9	2097.7
45°	3353.5	3344.5	3318.7	3243.9	3144.6	3081.4	3103.4	2895.8	3099.5	3040.2	2267.9
47.5°	3276.1	3272.3	3301.9	3289.0	3232.3	3198.8	3274.8	3109.8	3345.8	3287.7	2463.9
50°	3041.5	3047.9	3134.3	3241.3	3268.4	3308.4	3415.4	3335.4	3610.1	3548.2	2689.5
52.5°	2462.6	2506.4	2766.9	3024.7	3224.6	3375.4	3580.4	3657.8	4040.7	3980.1	3041.5
55°	1838.6	1856.6	2140.3	2581.2	3047.9	3370.3	3702.9	3847.3	4253.4	4191.5	3134.3
57.5°	1458.2	1464.7	1605.2	2055.2	2684.3	3254.2	3767.4	3915.6	4346.3	4294.7	3272.3
60°	1144.9	1152.6	1254.5	1563.9	2172.5	2940.9	3674.5	3974.9	4528.1	4486.8	3513.4
62.5°	890.9	898.6	960.5	1142.3	1629.7	2458.7	3487.6	4070.3	4873.6	4854.3	3907.9
65°	689.8	692.4	734.9	820.0	1151.4	1936.5	3259.4	4159.3	5340.3	5323.6	4227.6
67.5°	509.3	513.1	542.8	595.7	777.5	1391.2	2885.5	4091.0	5692.3	5643.3	4343.7
69°	411.3	415.2	440.9	483.5	613.7	1095.9	2543.8	3922.1	5745.2	5698.7	4270.2
70°	352.0	354.6	380.3	416.4	523.5	930.9	2273.1	3776.4	5675.5	5630.4	4102.6
72.5°	225.6	238.5	264.3	287.5	346.8	616.3	1534.3	3131.7	4896.8	4819.4	3213.0
75°	125.1	128.9	175.3	203.7	230.8	401.0	853.5	1953.3	3115.0	3060.8	1718.6
77.5°	103.1	105.7	123.8	154.7	154.7	224.3	322.3	769.7	1184.9	1068.8	465.4
80°	72.2	74.8	94.1	101.9	110.9	126.4	104.4	168.9	183.1	162.5	69.6
82.5°	50.3	52.9	64.5	83.8	89.0	59.3	38.7	50.3	52.9	52.9	27.1
85°	9.0	12.9	47.7	69.6	52.9	18.1	21.9	18.1	16.8	18.1	6.4
87.5°	0.0	0.0	29.7	33.5	28.4	7.7	9.0	6.4	3.9	5.2	2.6
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: P234709

CATALOG NUMBER: ARCH-AF24-100-D-U-T2R-8027-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	555.7	555.7	555.7	555.7	555.7	555.7	555.7	555.7	555.7	555.7	555.7
2.5°	559.6	532.5	486.1	452.5	424.2	402.3	393.2	379.1	368.7	373.9	367.5
5°	575.0	527.3	452.5	404.8	371.3	343.0	319.7	301.7	287.5	284.9	282.4
7.5°	599.5	531.2	433.2	373.9	323.6	279.8	243.7	216.6	196.0	196.0	188.2
10°	633.1	541.5	421.6	343.0	268.2	208.9	172.8	147.0	136.7	135.4	132.8
12.5°	679.5	560.8	412.6	303.0	208.9	152.1	130.2	121.2	117.3	116.0	114.7
15°	742.6	589.2	402.3	254.0	158.6	125.1	116.0	108.3	104.4	103.1	101.9
17.5°	803.2	615.0	380.3	203.7	128.9	113.5	103.1	96.7	91.5	90.3	90.3
20°	860.0	636.9	343.0	158.6	116.0	101.9	91.5	83.8	78.6	77.4	77.4
22.5°	919.3	655.0	296.5	128.9	105.7	90.3	79.9	72.2	67.0	65.8	64.5
25°	982.5	667.9	243.7	114.7	95.4	79.9	68.3	61.9	58.0	56.7	55.4
27.5°	1050.8	673.0	193.4	104.4	83.8	69.6	59.3	52.9	50.3	49.0	49.0
30°	1112.7	667.9	149.6	92.8	73.5	60.6	51.6	46.4	43.8	42.5	42.5
32.5°	1177.1	655.0	119.9	82.5	64.5	51.6	43.8	40.0	38.7	37.4	37.4
35°	1245.5	638.2	103.1	73.5	55.4	45.1	38.7	36.1	34.8	33.5	33.5
37.5°	1325.4	617.6	94.1	65.8	49.0	40.0	33.5	32.2	30.9	30.9	30.9
40°	1415.7	591.8	87.7	59.3	43.8	34.8	29.7	28.4	27.1	27.1	27.1
42.5°	1511.1	562.1	81.2	52.9	38.7	29.7	25.8	25.8	24.5	24.5	23.2
45°	1618.1	532.5	74.8	46.4	33.5	25.8	21.9	20.6	20.6	19.3	19.3
47.5°	1744.4	505.4	68.3	41.3	29.7	21.9	19.3	18.1	16.8	15.5	15.5
50°	1922.4	502.8	60.6	36.1	27.1	18.1	15.5	14.2	12.9	11.6	11.6
52.5°	2099.0	479.6	51.6	29.7	21.9	15.5	11.6	10.3	9.0	9.0	7.7
55°	2139.0	440.9	45.1	25.8	16.8	11.6	9.0	6.4	6.4	5.2	5.2
57.5°	2226.6	422.9	38.7	20.6	12.9	9.0	5.2	3.9	3.9	3.9	3.9
60°	2399.4	417.7	33.5	18.1	9.0	6.4	3.9	2.6	2.6	1.3	1.3
62.5°	2637.9	412.6	28.4	15.5	6.4	3.9	2.6	1.3	0.0	0.0	0.0
65°	2769.4	377.8	23.2	11.6	5.2	3.9	1.3	0.0	0.0	0.0	0.0
67.5°	2734.6	312.0	20.6	7.7	3.9	2.6	1.3	0.0	0.0	0.0	0.0
69°	2588.9	263.0	16.8	6.4	3.9	2.6	1.3	0.0	0.0	0.0	0.0
70°	2413.6	226.9	15.5	5.2	2.6	1.3	1.3	0.0	0.0	0.0	0.0
72.5°	1713.5	118.6	10.3	3.9	2.6	1.3	0.0	0.0	0.0	0.0	0.0
75°	800.7	52.9	6.4	2.6	1.3	1.3	0.0	0.0	0.0	0.0	0.0
77.5°	176.6	24.5	3.9	2.6	1.3	0.0	0.0	0.0	0.0	0.0	0.0
80°	33.5	9.0	2.6	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	11.6	3.9	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.9	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.3	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)