

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: P234796

Luminaire Tested: **ARCH-M-AF48-80-D-U-T2R-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234796
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-M-AF48-80-D-U-T2R-8027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 535mA LIGHT ENGINES 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: 7046 lumens
Efficiency: N/A
Efficacy: 84.9 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B0 - U0 - G2

Input Watts (W): 83
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

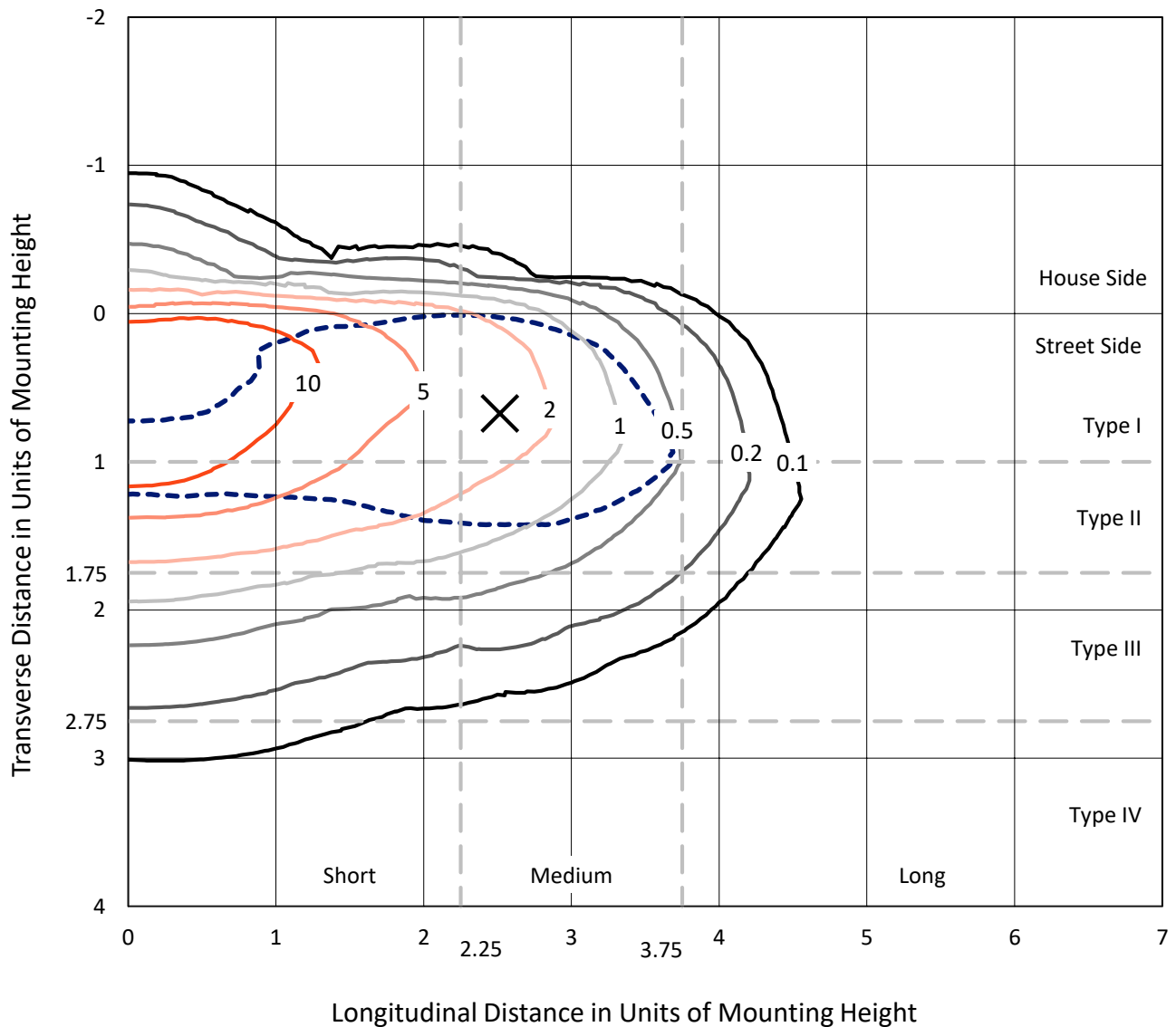


REPORT NUMBER: P234796

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T2R-8027-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

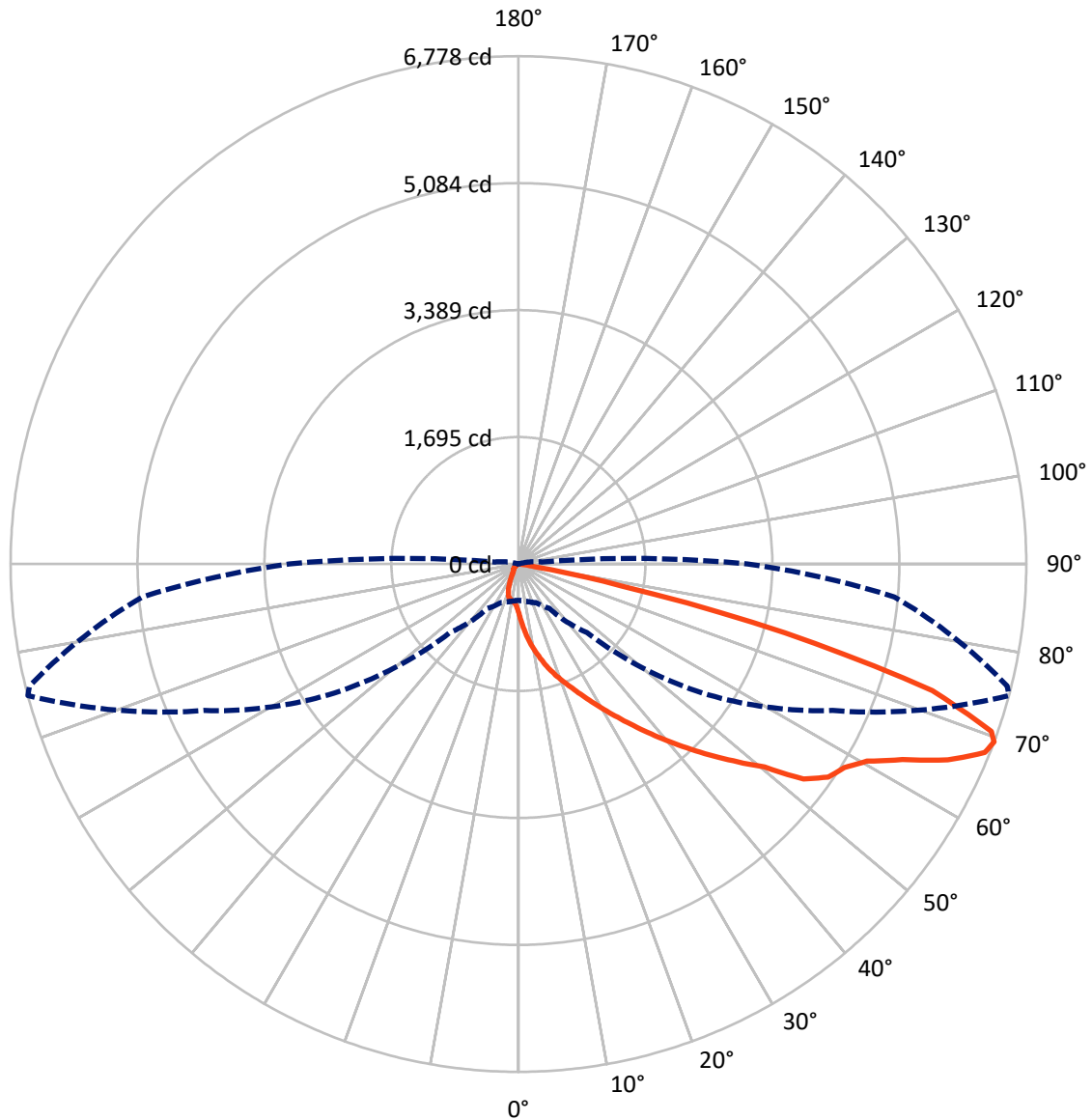


Based on 10 foot mounting height. Maximum calculated value = 17.9 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P234796

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T2R-8027-HSS

Luminous Intensity Polar Plot



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



REPORT NUMBER: P234796

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T2R-8027-HSS

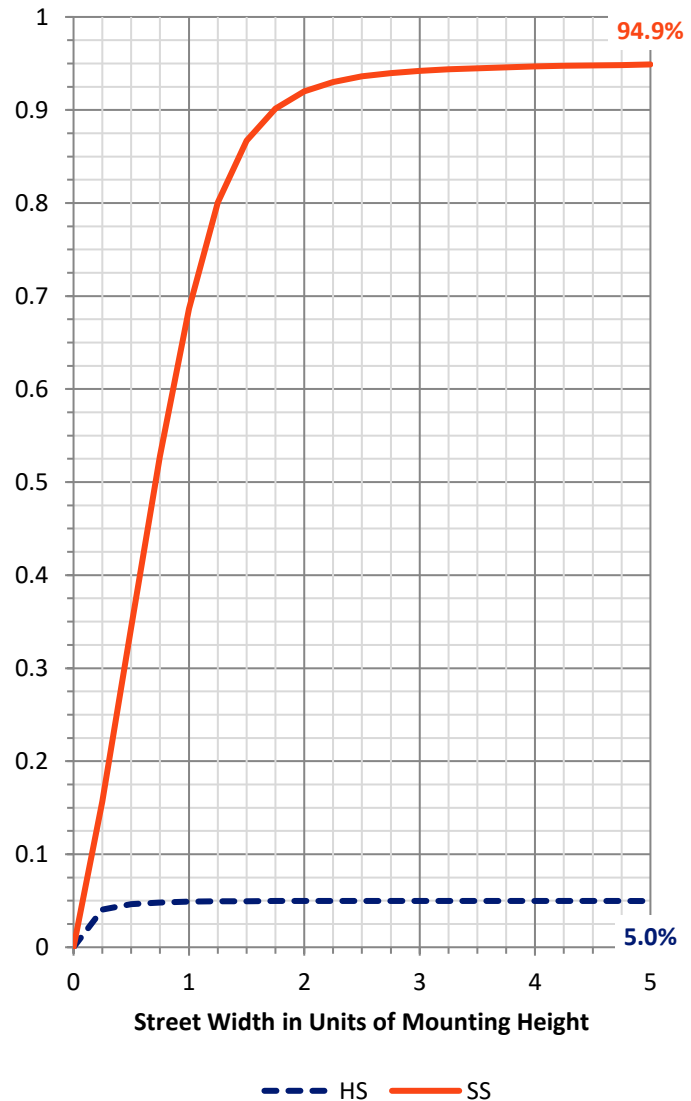
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	351.5	0.0	351.5
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	6694.5	0.0	6694.5
	% Fixture	95.0	0.0	95.0
Total	Lumens	7046.0	0.0	7046.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.4	1.1
10°-20°	273.3	3.9
20°-30°	521.8	7.4
30°-40°	936.0	13.3
40°-50°	1434.0	20.4
50°-60°	1666.6	23.7
60°-70°	1475.8	20.9
70°-80°	636.6	9.0
80°-90°	25.5	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°	7046.0	100.0
0°-180°	7046.0	100.0

Coefficient of Utilization



REPORT NUMBER: P234796

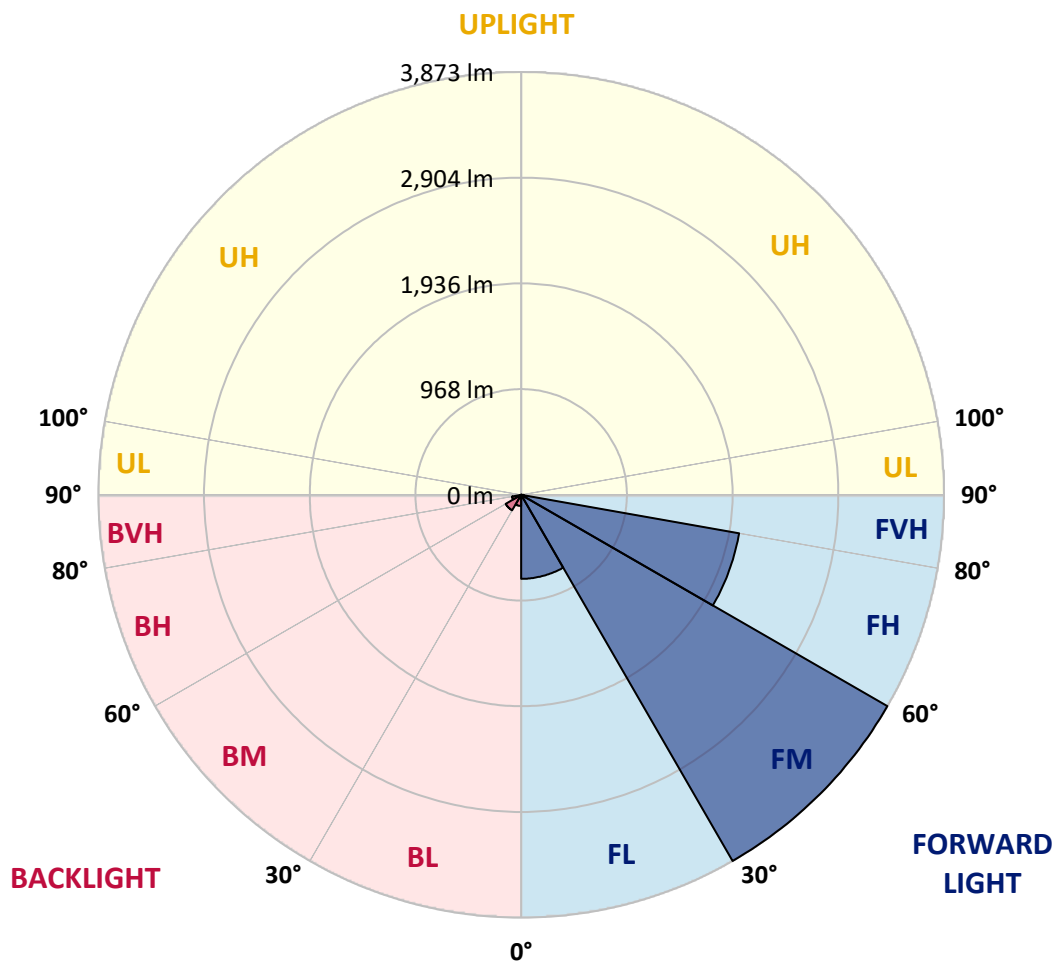
CATALOG NUMBER: ARCH-M-AF48-80-D-U-T2R-8027-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	769.4	10.9			
FM	(30°-60°)	3872.7	55.0			
FH	(60°-80°)	2027.2	28.8			G2/5000
FVH	(80°-90°)	25.1	0.4			G1/100
BL	(0°-30°)	102.1	1.4	B0/110		
BM	(30°-60°)	163.9	2.3	B0/220		
BH	(60°-80°)	85.2	1.2	B0/110		G0/110
BVH	(80°-90°)	0.4	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-G2

Type II Medium





REPORT NUMBER: P234796

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T2R-8027-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	655.6	655.6	655.6	655.6	655.6	655.6	655.6	655.6	655.6	655.6	655.6
2.5°	1080.0	1069.4	1058.7	1046.6	1019.2	972.0	912.7	848.8	769.7	756.0	692.1
5°	1311.3	1306.7	1296.0	1279.3	1248.9	1197.2	1130.2	1035.9	903.6	880.8	745.4
7.5°	1474.0	1471.0	1461.9	1442.1	1414.7	1363.0	1293.0	1191.1	1037.4	1011.6	812.3
10°	1620.1	1618.5	1610.9	1592.7	1565.3	1509.0	1434.5	1328.0	1165.2	1136.3	889.9
12.5°	1752.4	1753.9	1750.9	1741.7	1722.0	1668.7	1583.5	1467.9	1288.4	1256.5	982.7
15°	1830.0	1834.5	1846.7	1865.0	1871.0	1828.5	1740.2	1612.4	1414.7	1387.3	1089.2
17.5°	1804.1	1808.7	1846.7	1909.1	1968.4	1974.5	1895.4	1749.4	1539.4	1512.1	1194.1
20°	1741.7	1747.8	1787.4	1872.6	1988.2	2068.8	2036.9	1898.4	1658.1	1624.6	1294.5
22.5°	1811.7	1811.7	1823.9	1875.6	1980.6	2106.8	2149.4	2047.5	1779.8	1738.7	1394.9
25°	2052.1	2047.5	2021.6	2000.3	2033.8	2146.4	2234.6	2199.6	1922.8	1875.6	1501.4
27.5°	2356.3	2377.6	2328.9	2251.3	2175.3	2224.0	2310.7	2350.2	2081.0	2032.3	1610.9
30°	2697.0	2706.2	2648.4	2544.9	2411.1	2363.9	2400.4	2479.5	2252.9	2199.6	1725.0
32.5°	3004.3	2996.7	2948.0	2840.0	2674.2	2572.3	2516.0	2583.0	2440.0	2379.1	1842.1
35°	3276.6	3282.7	3223.4	3098.6	2935.9	2827.9	2694.0	2700.1	2649.9	2579.9	1977.5
37.5°	3521.5	3510.9	3454.6	3329.9	3182.3	3065.2	2923.7	2821.8	2879.6	2806.6	2129.6
40°	3720.8	3710.2	3650.8	3529.1	3390.7	3294.9	3183.8	2984.6	3121.5	3037.8	2292.4
42.5°	3879.0	3866.8	3816.6	3699.5	3565.6	3480.5	3427.2	3185.3	3380.1	3296.4	2475.0
45°	3956.6	3945.9	3915.5	3827.3	3710.2	3635.6	3661.5	3416.6	3656.9	3586.9	2675.8
47.5°	3865.3	3860.7	3895.7	3880.5	3813.6	3774.0	3863.8	3669.1	3947.5	3879.0	2907.0
50°	3588.5	3596.1	3698.0	3824.2	3856.2	3903.3	4029.6	3935.3	4259.3	4186.3	3173.2
52.5°	2905.4	2957.2	3264.4	3568.7	3804.5	3982.4	4224.3	4315.6	4767.4	4695.9	3588.5
55°	2169.2	2190.5	2525.2	3045.4	3596.1	3976.4	4368.8	4539.2	5018.4	4945.3	3698.0
57.5°	1720.5	1728.1	1893.9	2424.8	3167.1	3839.5	4444.9	4619.8	5127.9	5067.0	3860.7
60°	1350.8	1359.9	1480.1	1845.2	2563.2	3469.8	4335.4	4689.8	5342.4	5293.7	4145.2
62.5°	1051.1	1060.3	1133.3	1347.8	1922.8	2900.9	4114.8	4802.4	5750.1	5727.2	4610.7
65°	813.8	816.9	867.1	967.5	1358.4	2284.8	3845.5	4907.3	6300.7	6280.9	4987.9
67.5°	600.9	605.4	640.4	702.8	917.3	1641.4	3404.4	4826.7	6716.0	6658.2	5124.8
69°	485.3	489.8	520.2	570.4	724.1	1293.0	3001.3	4627.4	6778.4	6723.6	5038.1
70°	415.3	418.3	448.7	491.3	617.6	1098.3	2681.8	4455.5	6696.2	6643.0	4840.4
72.5°	266.2	281.4	311.8	339.2	409.2	727.1	1810.2	3694.9	5777.4	5686.2	3790.8
75°	147.6	152.1	206.9	240.3	272.3	473.1	1007.0	2304.6	3675.2	3611.3	2027.7
77.5°	121.7	124.7	146.0	182.5	182.5	264.7	380.3	908.1	1398.0	1261.1	549.1
80°	85.2	88.2	111.0	120.2	130.8	149.1	123.2	199.3	216.0	191.7	82.1
82.5°	59.3	62.4	76.1	98.9	105.0	70.0	45.6	59.3	62.4	62.4	31.9
85°	10.6	15.2	56.3	82.1	62.4	21.3	25.9	21.3	19.8	21.3	7.6
87.5°	0.0	0.0	35.0	39.6	33.5	9.1	10.6	7.6	4.6	6.1	3.0
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: P234796

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T2R-8027-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	655.6	655.6	655.6	655.6	655.6	655.6	655.6	655.6	655.6	655.6	655.6
2.5°	660.2	628.2	573.5	533.9	500.5	474.6	464.0	447.2	435.1	441.1	433.5
5°	678.4	622.2	533.9	477.6	438.1	404.6	377.3	356.0	339.2	336.2	333.1
7.5°	707.3	626.7	511.1	441.1	381.8	330.1	287.5	255.6	231.2	231.2	222.1
10°	746.9	638.9	497.4	404.6	316.4	246.4	203.8	173.4	161.2	159.7	156.7
12.5°	801.7	661.7	486.8	357.5	246.4	179.5	153.6	143.0	138.4	136.9	135.4
15°	876.2	695.2	474.6	299.7	187.1	147.6	136.9	127.8	123.2	121.7	120.2
17.5°	947.7	725.6	448.7	240.3	152.1	133.9	121.7	114.1	108.0	106.5	106.5
20°	1014.6	751.5	404.6	187.1	136.9	120.2	108.0	98.9	92.8	91.3	91.3
22.5°	1084.6	772.8	349.9	152.1	124.7	106.5	94.3	85.2	79.1	77.6	76.1
25°	1159.1	788.0	287.5	135.4	112.6	94.3	80.6	73.0	68.5	66.9	65.4
27.5°	1239.8	794.1	228.2	123.2	98.9	82.1	70.0	62.4	59.3	57.8	57.8
30°	1312.8	788.0	176.5	109.5	86.7	71.5	60.8	54.8	51.7	50.2	50.2
32.5°	1388.8	772.8	141.5	97.4	76.1	60.8	51.7	47.2	45.6	44.1	44.1
35°	1469.5	753.0	121.7	86.7	65.4	53.2	45.6	42.6	41.1	39.6	39.6
37.5°	1563.8	728.6	111.0	77.6	57.8	47.2	39.6	38.0	36.5	36.5	36.5
40°	1670.3	698.2	103.4	70.0	51.7	41.1	35.0	33.5	31.9	31.9	31.9
42.5°	1782.8	663.2	95.8	62.4	45.6	35.0	30.4	30.4	28.9	28.9	27.4
45°	1909.1	628.2	88.2	54.8	39.6	30.4	25.9	24.3	24.3	22.8	22.8
47.5°	2058.2	596.3	80.6	48.7	35.0	25.9	22.8	21.3	19.8	18.3	18.3
50°	2268.1	593.3	71.5	42.6	31.9	21.3	18.3	16.7	15.2	13.7	13.7
52.5°	2476.5	565.9	60.8	35.0	25.9	18.3	13.7	12.2	10.6	10.6	9.1
55°	2523.6	520.2	53.2	30.4	19.8	13.7	10.6	7.6	7.6	6.1	6.1
57.5°	2627.1	498.9	45.6	24.3	15.2	10.6	6.1	4.6	4.6	4.6	4.6
60°	2830.9	492.9	39.6	21.3	10.6	7.6	4.6	3.0	3.0	1.5	1.5
62.5°	3112.3	486.8	33.5	18.3	7.6	4.6	3.0	1.5	0.0	0.0	0.0
65°	3267.5	445.7	27.4	13.7	6.1	4.6	1.5	0.0	0.0	0.0	0.0
67.5°	3226.4	368.1	24.3	9.1	4.6	3.0	1.5	0.0	0.0	0.0	0.0
69°	3054.5	310.3	19.8	7.6	4.6	3.0	1.5	0.0	0.0	0.0	0.0
70°	2847.6	267.7	18.3	6.1	3.0	1.5	1.5	0.0	0.0	0.0	0.0
72.5°	2021.6	139.9	12.2	4.6	3.0	1.5	0.0	0.0	0.0	0.0	0.0
75°	944.7	62.4	7.6	3.0	1.5	1.5	0.0	0.0	0.0	0.0	0.0
77.5°	208.4	28.9	4.6	3.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
80°	39.6	10.6	3.0	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	13.7	4.6	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.6	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.5	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)