

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: P214678

Luminaire Tested: **ARCH-AF24-90-D-U-T2R-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214678
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-AF24-90-D-U-T2R-7050-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 1180mA 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: 7607 lumens
Efficiency: N/A
Efficacy: 80.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 94
Input Voltage (V): NR
Input Current (A_{in}): 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

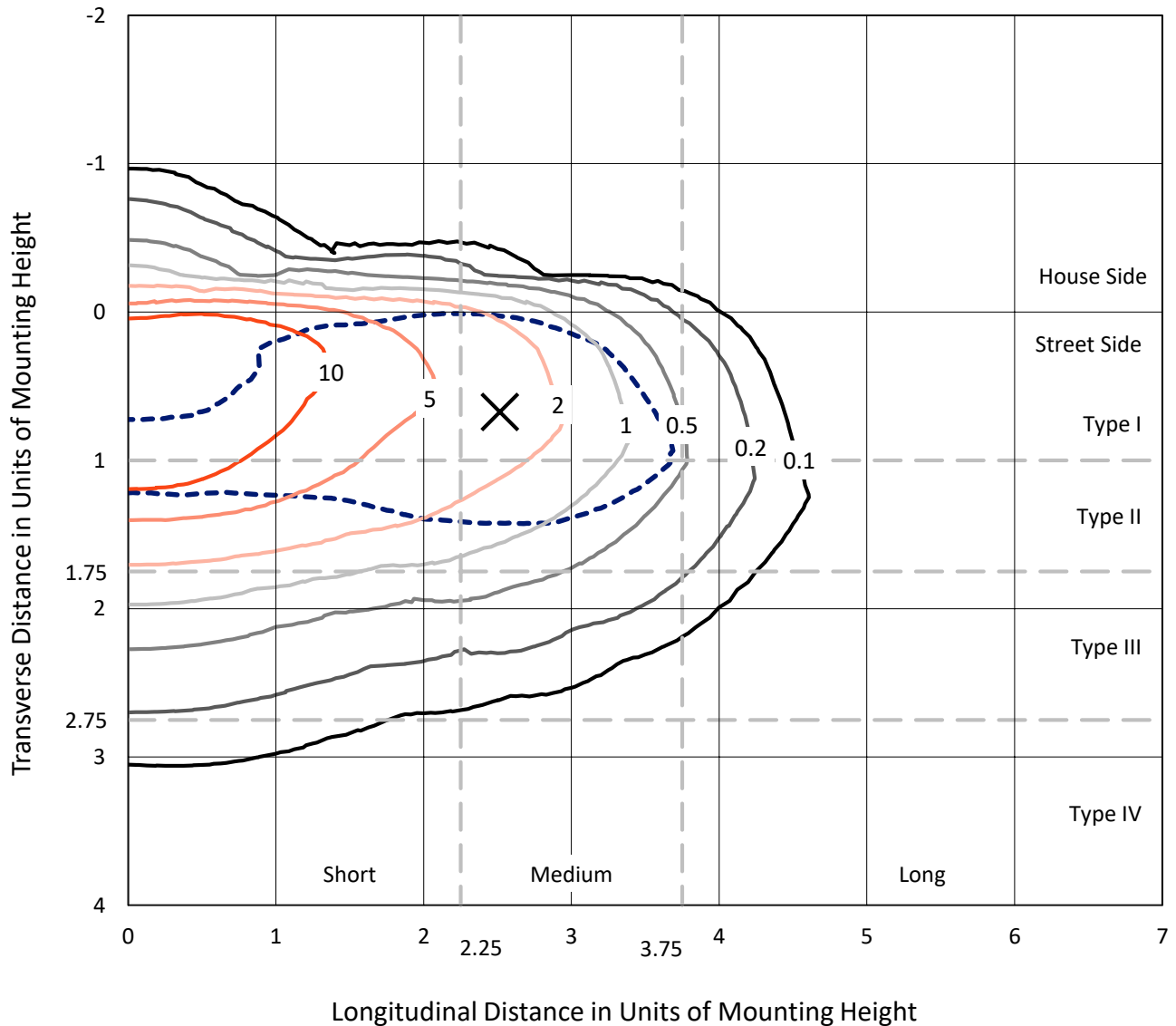


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

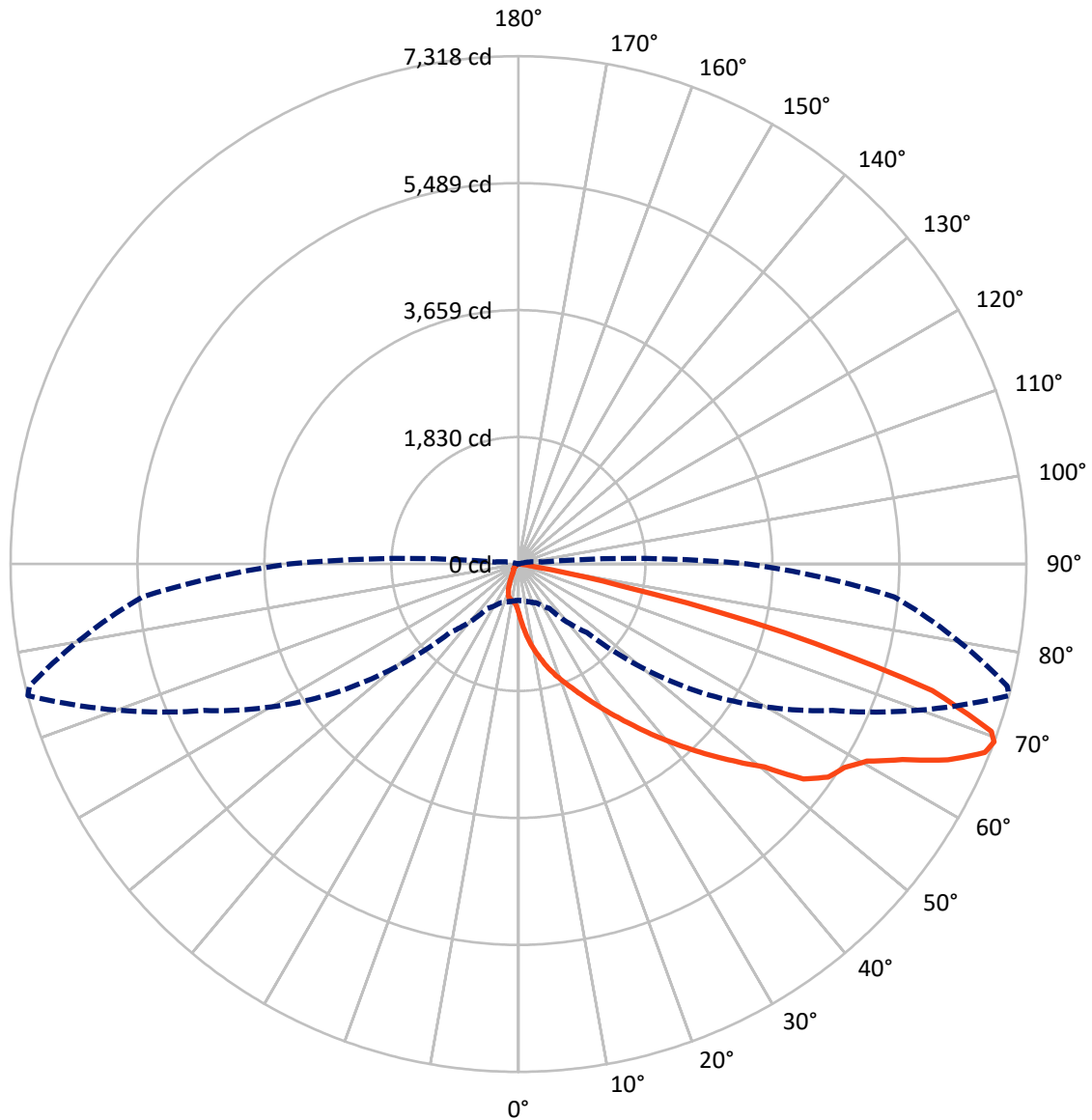


Based on 10 foot mounting height. Maximum calculated value = 19.4 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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

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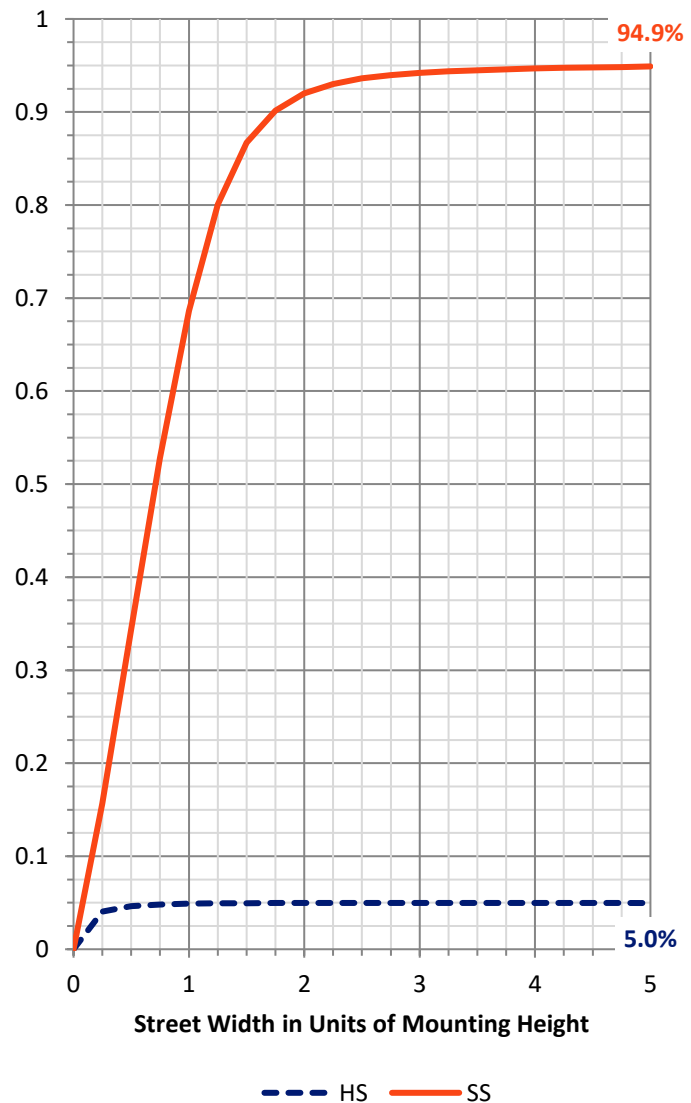
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	379.5	0.0	379.5
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	7227.5	0.0	7227.5
	% Fixture	95.0	0.0	95.0
Total	Lumens	7607.0	0.0	7607.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.5	1.1
10°-20°	295.1	3.9
20°-30°	563.3	7.4
30°-40°	1010.5	13.3
40°-50°	1548.1	20.4
50°-60°	1799.3	23.7
60°-70°	1593.3	20.9
70°-80°	687.3	9.0
80°-90°	27.5	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°	7607.0	100.0
0°-180°	7607.0	100.0

Coefficient of Utilization



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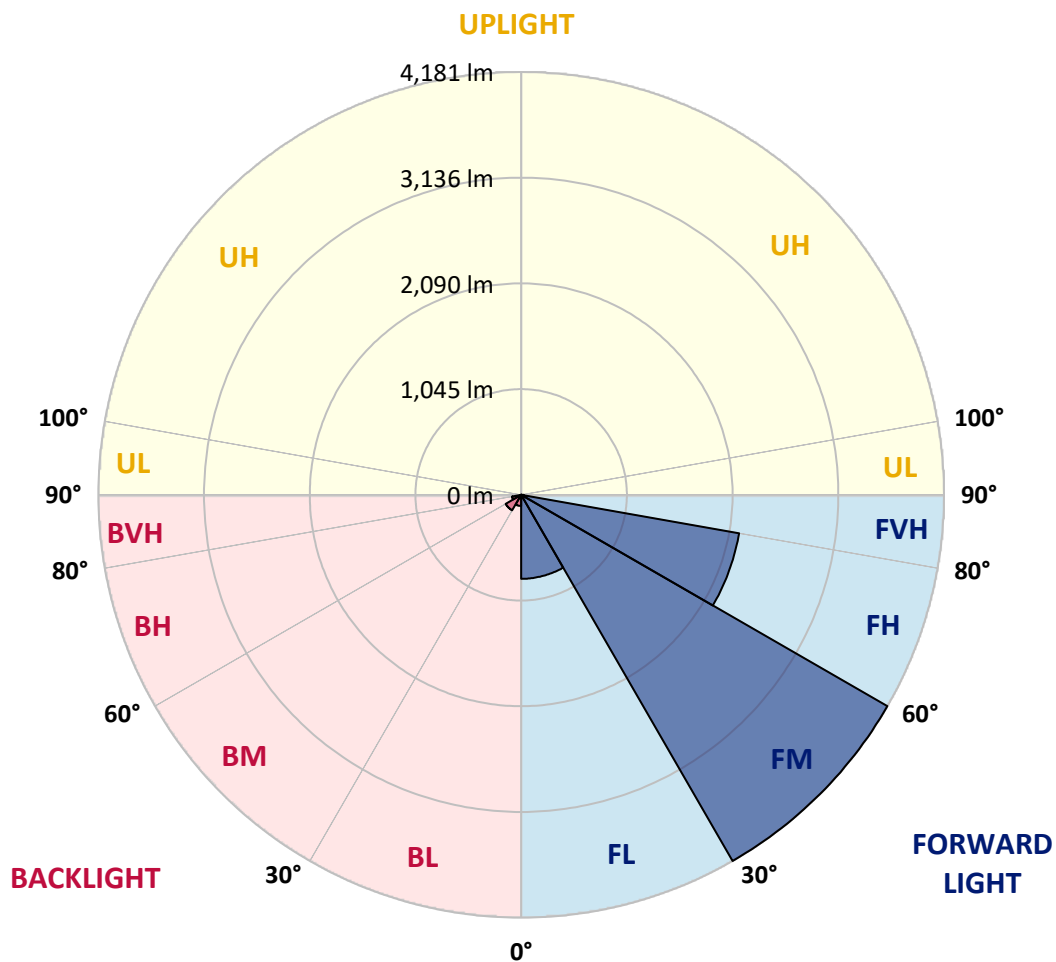
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	830.7	10.9			
FM	(30°-60°)	4181.0	55.0			
FH	(60°-80°)	2188.6	28.8			G2/5000
FVH	(80°-90°)	27.1	0.4			G1/100
BL	(0°-30°)	110.2	1.4	B1/500		
BM	(30°-60°)	177.0	2.3	B0/220		
BH	(60°-80°)	91.9	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: B1-U0-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8
2.5°	1166.0	1154.5	1143.0	1129.9	1100.3	1049.4	985.4	916.4	831.0	816.2	747.2
5°	1415.7	1410.7	1399.2	1381.2	1348.3	1292.5	1220.2	1118.4	975.5	950.9	804.7
7.5°	1591.4	1588.1	1578.2	1556.9	1527.3	1471.5	1395.9	1285.9	1120.0	1092.1	877.0
10°	1749.0	1747.4	1739.2	1719.5	1689.9	1629.2	1548.7	1433.7	1258.0	1226.8	960.7
12.5°	1891.9	1893.6	1890.3	1880.4	1859.1	1801.6	1709.6	1584.8	1391.0	1356.5	1060.9
15°	1975.7	1980.6	1993.7	2013.5	2020.0	1974.0	1878.8	1740.8	1527.3	1497.8	1175.9
17.5°	1947.8	1952.7	1993.7	2061.1	2125.1	2131.7	2046.3	1888.6	1662.0	1632.4	1289.2
20°	1880.4	1887.0	1929.7	2021.7	2146.5	2233.5	2199.0	2049.6	1790.1	1754.0	1397.6
22.5°	1956.0	1956.0	1969.1	2024.9	2138.3	2274.6	2320.6	2210.5	1921.5	1877.1	1506.0
25°	2215.5	2210.5	2182.6	2159.6	2195.7	2317.3	2412.5	2374.8	2075.9	2024.9	1620.9
27.5°	2543.9	2566.9	2514.4	2430.6	2348.5	2401.0	2494.6	2537.3	2246.7	2194.1	1739.2
30°	2911.8	2921.6	2859.2	2747.6	2603.0	2552.1	2591.5	2676.9	2432.2	2374.8	1862.4
32.5°	3243.5	3235.3	3182.8	3066.2	2887.2	2777.1	2716.4	2788.6	2634.2	2568.5	1988.8
35°	3537.5	3544.1	3480.0	3345.4	3169.6	3053.0	2908.5	2915.1	2860.9	2785.3	2135.0
37.5°	3801.9	3790.4	3729.6	3595.0	3435.7	3309.2	3156.5	3046.5	3108.9	3030.0	2299.2
40°	4017.0	4005.6	3941.5	3810.1	3660.7	3557.2	3437.3	3222.2	3370.0	3279.7	2474.9
42.5°	4187.8	4174.7	4120.5	3994.1	3849.5	3757.6	3700.1	3439.0	3649.2	3558.9	2672.0
45°	4271.6	4260.1	4227.3	4132.0	4005.6	3925.1	3953.0	3688.6	3948.1	3872.5	2888.8
47.5°	4173.1	4168.1	4205.9	4189.5	4117.2	4074.5	4171.4	3961.2	4261.8	4187.8	3138.4
50°	3874.2	3882.4	3992.4	4128.7	4163.2	4214.1	4350.4	4248.6	4598.4	4519.6	3425.8
52.5°	3136.8	3192.6	3524.4	3852.8	4107.4	4299.5	4560.6	4659.2	5146.9	5069.8	3874.2
55°	2341.9	2364.9	2726.2	3287.9	3882.4	4293.0	4716.7	4900.6	5417.9	5339.1	3992.4
57.5°	1857.4	1865.6	2044.7	2617.8	3419.3	4145.1	4798.8	4987.6	5536.2	5470.5	4168.1
60°	1458.4	1468.2	1598.0	1992.1	2767.3	3746.1	4680.5	5063.2	5767.7	5715.2	4475.2
62.5°	1134.8	1144.7	1223.5	1455.1	2075.9	3131.9	4442.4	5184.7	6207.9	6183.2	4977.8
65°	878.6	881.9	936.1	1044.5	1466.6	2466.7	4151.7	5298.0	6802.4	6781.0	5385.1
67.5°	648.7	653.6	691.4	758.7	990.3	1772.0	3675.5	5211.0	7250.7	7188.3	5532.9
69°	523.9	528.8	561.7	615.9	781.7	1395.9	3240.2	4995.9	7318.1	7258.9	5439.3
70°	448.3	451.6	484.5	530.5	666.8	1185.7	2895.4	4810.3	7229.4	7171.9	5225.8
72.5°	287.4	303.8	336.7	366.2	441.8	785.0	1954.3	3989.1	6237.4	6138.9	4092.6
75°	159.3	164.2	223.4	259.5	294.0	510.8	1087.2	2488.1	3967.8	3898.8	2189.2
77.5°	131.4	134.7	157.7	197.1	197.1	285.8	410.6	980.4	1509.3	1361.5	592.9
80°	92.0	95.3	119.9	129.7	141.2	160.9	133.0	215.1	233.2	206.9	88.7
82.5°	64.0	67.3	82.1	106.7	113.3	75.5	49.3	64.0	67.3	67.3	34.5
85°	11.5	16.4	60.8	88.7	67.3	23.0	27.9	23.0	21.3	23.0	8.2
87.5°	0.0	0.0	37.8	42.7	36.1	9.9	11.5	8.2	4.9	6.6	3.3
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°	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8
2.5°	712.8	678.3	619.1	576.4	540.3	512.4	500.9	482.8	469.7	476.3	468.1
5°	732.5	671.7	576.4	515.7	473.0	436.9	407.3	384.3	366.2	362.9	359.7
7.5°	763.7	676.6	551.8	476.3	412.2	356.4	310.4	275.9	249.6	249.6	239.8
10°	806.4	689.8	537.0	436.9	341.6	266.1	220.1	187.2	174.1	172.4	169.2
12.5°	865.5	714.4	525.5	385.9	266.1	193.8	165.9	154.4	149.4	147.8	146.2
15°	946.0	750.5	512.4	323.5	202.0	159.3	147.8	138.0	133.0	131.4	129.7
17.5°	1023.1	783.4	484.5	259.5	164.2	144.5	131.4	123.2	116.6	115.0	115.0
20°	1095.4	811.3	436.9	202.0	147.8	129.7	116.6	106.7	100.2	98.5	98.5
22.5°	1171.0	834.3	377.7	164.2	134.7	115.0	101.8	92.0	85.4	83.8	82.1
25°	1251.4	850.7	310.4	146.2	121.5	101.8	87.0	78.8	73.9	72.3	70.6
27.5°	1338.5	857.3	246.3	133.0	106.7	88.7	75.5	67.3	64.0	62.4	62.4
30°	1417.3	850.7	190.5	118.2	93.6	77.2	65.7	59.1	55.8	54.2	54.2
32.5°	1499.4	834.3	152.7	105.1	82.1	65.7	55.8	50.9	49.3	47.6	47.6
35°	1586.5	812.9	131.4	93.6	70.6	57.5	49.3	46.0	44.3	42.7	42.7
37.5°	1688.3	786.7	119.9	83.8	62.4	50.9	42.7	41.1	39.4	39.4	39.4
40°	1803.2	753.8	111.7	75.5	55.8	44.3	37.8	36.1	34.5	34.5	34.5
42.5°	1924.8	716.0	103.5	67.3	49.3	37.8	32.8	32.8	31.2	31.2	29.6
45°	2061.1	678.3	95.3	59.1	42.7	32.8	27.9	26.3	26.3	24.6	24.6
47.5°	2222.0	643.8	87.0	52.6	37.8	27.9	24.6	23.0	21.3	19.7	19.7
50°	2448.7	640.5	77.2	46.0	34.5	23.0	19.7	18.1	16.4	14.8	14.8
52.5°	2673.7	610.9	65.7	37.8	27.9	19.7	14.8	13.1	11.5	11.5	9.9
55°	2724.6	561.7	57.5	32.8	21.3	14.8	11.5	8.2	8.2	6.6	6.6
57.5°	2836.2	538.7	49.3	26.3	16.4	11.5	6.6	4.9	4.9	4.9	4.9
60°	3056.3	532.1	42.7	23.0	11.5	8.2	4.9	3.3	3.3	1.6	1.6
62.5°	3360.1	525.5	36.1	19.7	8.2	4.9	3.3	1.6	0.0	0.0	0.0
65°	3527.6	481.2	29.6	14.8	6.6	4.9	1.6	0.0	0.0	0.0	0.0
67.5°	3483.3	397.4	26.3	9.9	4.9	3.3	1.6	0.0	0.0	0.0	0.0
69°	3297.7	335.0	21.3	8.2	4.9	3.3	1.6	0.0	0.0	0.0	0.0
70°	3074.4	289.0	19.7	6.6	3.3	1.6	1.6	0.0	0.0	0.0	0.0
72.5°	2182.6	151.1	13.1	4.9	3.3	1.6	0.0	0.0	0.0	0.0	0.0
75°	1019.9	67.3	8.2	3.3	1.6	1.6	0.0	0.0	0.0	0.0	0.0
77.5°	225.0	31.2	4.9	3.3	1.6	0.0	0.0	0.0	0.0	0.0	0.0
80°	42.7	11.5	3.3	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	14.8	4.9	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.9	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.6	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)