

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: P231103

Luminaire Tested: **ARCH-M-AF48-60-D-U-T2R-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231103
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-AF48-60-D-U-T2R-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 405mA 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: 7277.3 lumens
Efficiency: N/A
Efficacy: 115.5 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

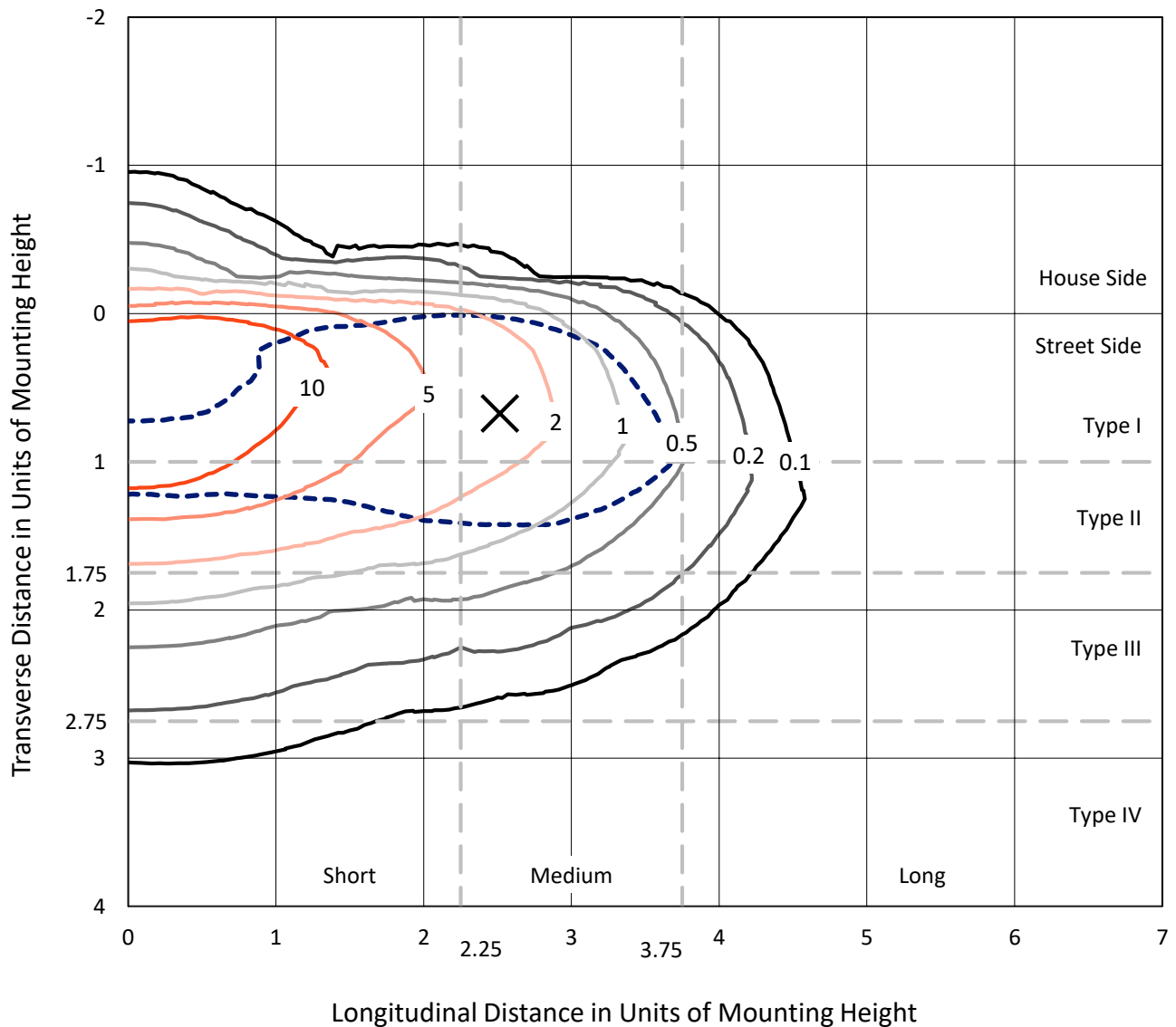
Input Watts (W): 63
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

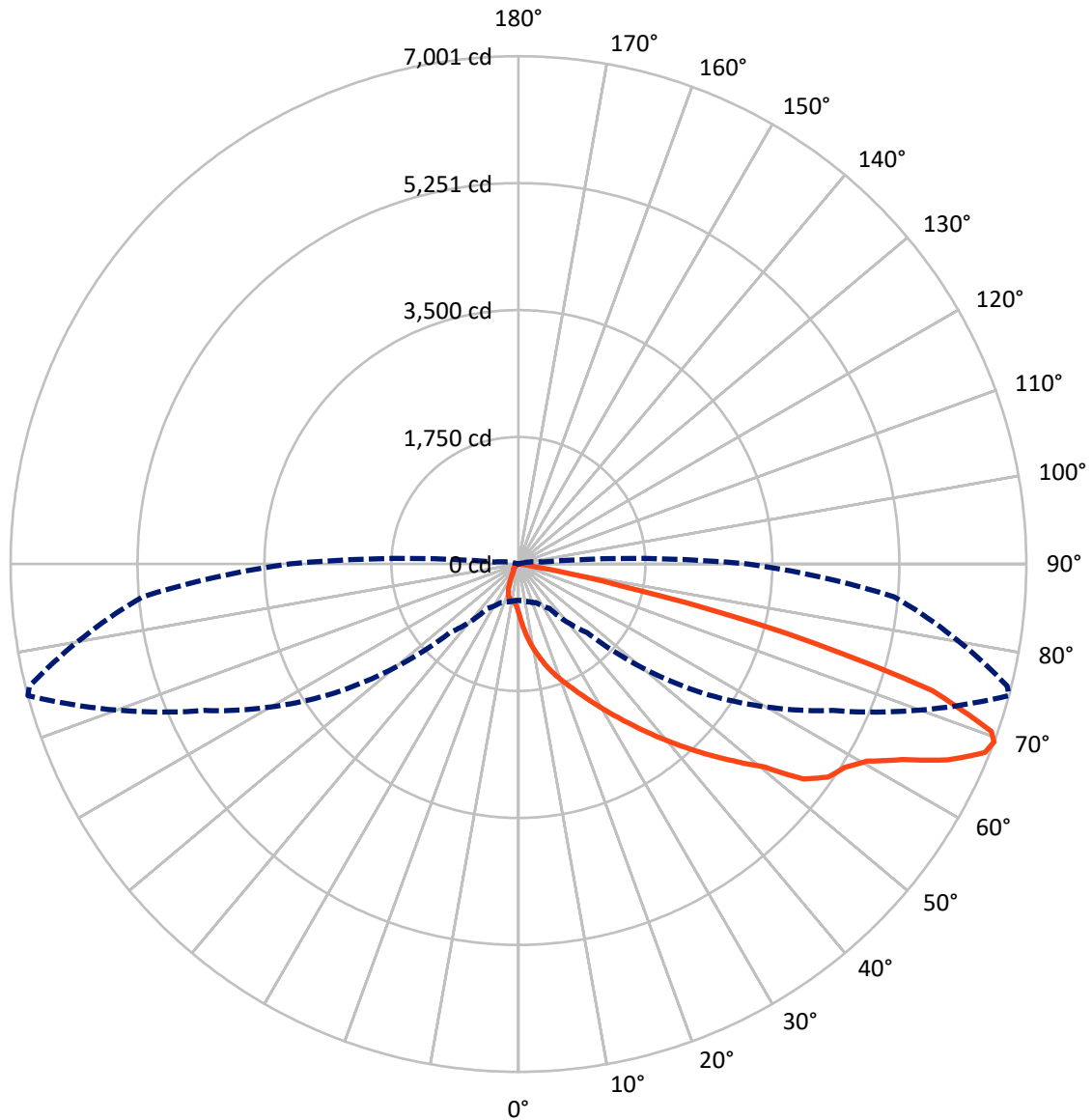
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 18.5 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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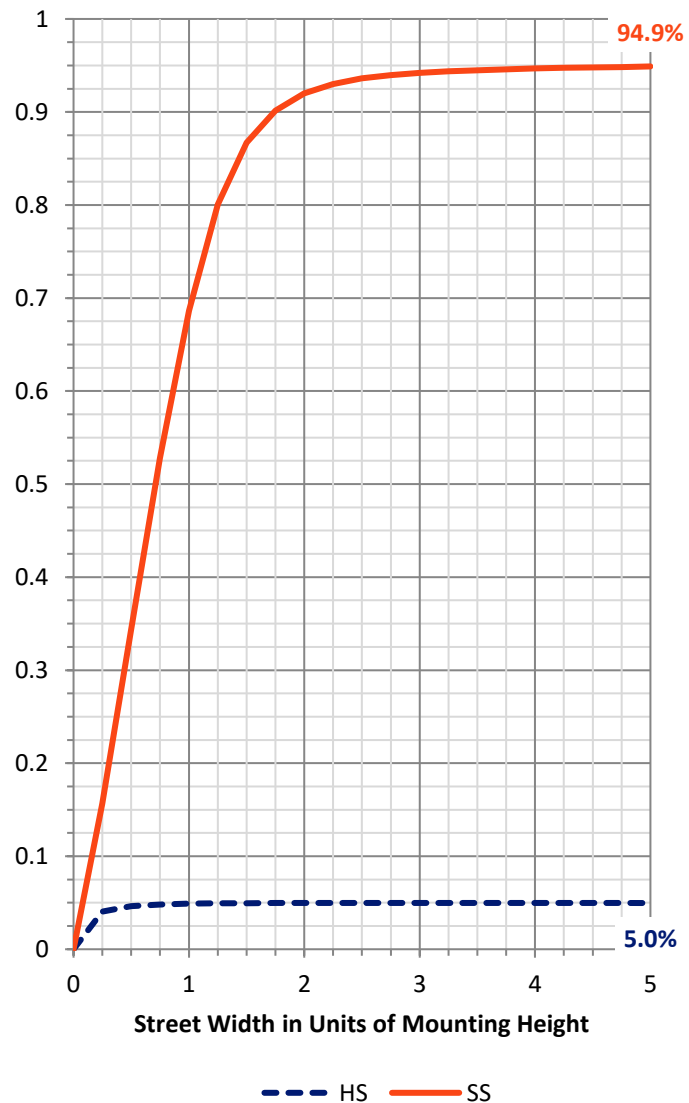
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	363.1	0.0	363.1
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	6914.2	0.0	6914.2
	% Fixture	95.0	0.0	95.0
Total	Lumens	7277.3	0.0	7277.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.0	1.1
10°-20°	282.3	3.9
20°-30°	538.9	7.4
30°-40°	966.7	13.3
40°-50°	1481.0	20.4
50°-60°	1721.3	23.7
60°-70°	1524.3	20.9
70°-80°	657.5	9.0
80°-90°	26.3	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°	7277.3	100.0
0°-180°	7277.3	100.0



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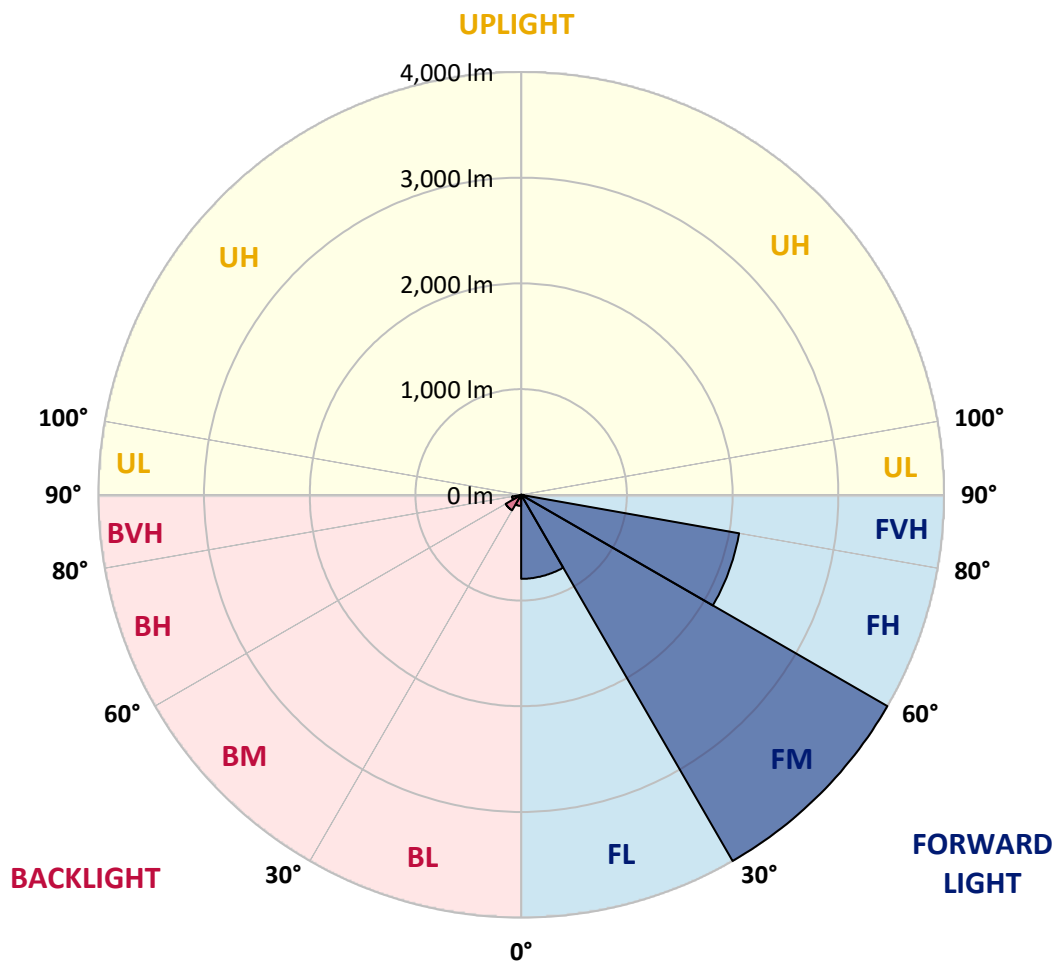
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	794.7	10.9			
FM (30°-60°)	3999.8	55.0			
FH (60°-80°)	2093.8	28.8			G2/5000
FVH (80°-90°)	26.0	0.4			G1/100
BL (0°-30°)	105.5	1.4	B0/110		
BM (30°-60°)	169.3	2.3	B0/220		
BH (60°-80°)	88.0	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	677.2	677.2	677.2	677.2	677.2	677.2	677.2	677.2	677.2	677.2	677.2
2.5°	1115.5	1104.5	1093.5	1081.0	1052.6	1003.9	942.6	876.7	794.9	780.8	714.8
5°	1354.3	1349.6	1338.6	1321.3	1289.8	1236.4	1167.3	1069.9	933.2	909.7	769.9
7.5°	1522.4	1519.3	1509.9	1489.4	1461.1	1407.7	1335.5	1230.2	1071.5	1044.7	838.9
10°	1673.2	1671.7	1663.8	1644.9	1616.7	1558.6	1481.5	1371.6	1203.5	1173.6	919.1
12.5°	1809.9	1811.4	1808.4	1799.0	1778.5	1723.5	1635.5	1516.1	1330.8	1297.7	1015.0
15°	1890.0	1894.7	1907.3	1926.2	1932.5	1888.5	1797.3	1665.4	1461.1	1432.8	1124.9
17.5°	1863.3	1868.0	1907.3	1971.7	2033.0	2039.3	1957.6	1806.7	1590.0	1561.6	1233.3
20°	1799.0	1805.2	1846.0	1934.0	2053.5	2136.7	2103.7	1960.8	1712.5	1677.9	1337.0
22.5°	1871.2	1871.2	1883.8	1937.2	2045.6	2176.0	2220.0	2114.7	1838.2	1795.8	1440.7
25°	2119.5	2114.7	2088.0	2066.1	2100.5	2216.8	2308.0	2271.9	1985.9	1937.2	1550.7
27.5°	2433.6	2455.6	2405.4	2325.3	2246.7	2296.9	2386.5	2427.4	2149.3	2099.0	1663.8
30°	2785.6	2795.0	2735.3	2628.5	2490.2	2441.5	2479.2	2560.9	2326.8	2271.9	1781.7
32.5°	3102.9	3095.0	3044.8	2933.2	2762.0	2656.7	2598.6	2667.8	2520.0	2457.2	1902.6
35°	3384.1	3390.5	3329.2	3200.3	3032.2	2920.7	2782.4	2788.7	2736.9	2664.6	2042.4
37.5°	3637.1	3626.2	3568.0	3439.2	3286.7	3165.8	3019.6	2914.4	2974.1	2898.7	2199.5
40°	3842.9	3832.0	3770.7	3645.0	3502.0	3403.1	3288.4	3082.6	3223.9	3137.5	2367.6
42.5°	4006.3	3993.8	3941.9	3820.9	3682.7	3594.6	3539.7	3289.9	3491.0	3404.6	2556.1
45°	4086.5	4075.4	4044.0	3952.9	3832.0	3754.9	3781.6	3528.7	3776.9	3704.7	2763.6
47.5°	3992.2	3987.5	4023.6	4007.9	3938.8	3898.0	3990.6	3789.5	4077.1	4006.3	3002.4
50°	3706.3	3714.1	3819.4	3949.7	3982.8	4031.4	4161.9	4064.5	4399.1	4323.7	3277.3
52.5°	3000.8	3054.2	3371.6	3685.8	3929.4	4113.2	4363.0	4457.2	4923.9	4850.0	3706.3
55°	2240.4	2262.4	2608.0	3145.4	3714.1	4106.8	4512.2	4688.2	5183.1	5107.7	3819.4
57.5°	1777.0	1784.7	1956.0	2504.4	3271.1	3965.5	4590.8	4771.5	5296.2	5233.3	3987.5
60°	1395.1	1404.6	1528.7	1905.8	2647.3	3583.7	4477.7	4843.8	5517.7	5467.5	4281.3
62.5°	1085.7	1095.1	1170.5	1392.0	1985.9	2996.1	4249.8	4960.0	5938.7	5915.2	4762.0
65°	840.6	843.7	895.5	999.2	1403.0	2359.8	3971.8	5068.4	6507.5	6487.1	5151.7
67.5°	620.6	625.3	661.4	725.9	947.4	1695.2	3516.2	4985.1	6936.4	6876.8	5293.1
69°	501.1	505.8	537.4	589.1	747.9	1335.5	3099.7	4779.3	7000.9	6944.3	5203.5
70°	428.9	432.1	463.5	507.5	637.9	1134.4	2769.8	4601.7	6916.0	6861.0	4999.3
72.5°	275.0	290.6	322.1	350.4	422.6	750.9	1869.6	3816.2	5967.1	5872.8	3915.2
75°	152.4	157.1	213.7	248.3	281.2	488.7	1040.0	2380.2	3795.8	3729.8	2094.3
77.5°	125.7	128.8	150.8	188.5	188.5	273.3	392.8	937.9	1443.9	1302.4	567.1
80°	88.0	91.1	114.7	124.1	135.1	154.0	127.3	205.8	223.1	197.9	84.8
82.5°	61.3	64.4	78.6	102.1	108.4	72.2	47.2	61.3	64.4	64.4	33.0
85°	11.0	15.8	58.1	84.8	64.4	22.0	26.7	22.0	20.5	22.0	7.9
87.5°	0.0	0.0	36.1	40.8	34.6	9.4	11.0	7.9	4.7	6.2	3.2
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°	677.2	677.2	677.2	677.2	677.2	677.2	677.2	677.2	677.2	677.2	677.2
2.5°	681.9	648.9	592.3	551.5	516.9	490.2	479.2	461.9	449.4	455.6	447.7
5°	700.7	642.6	551.5	493.4	452.5	417.9	389.6	367.6	350.4	347.2	344.1
7.5°	730.6	647.3	527.8	455.6	394.3	340.9	297.0	263.9	238.9	238.9	229.3
10°	771.4	659.9	513.7	417.9	326.8	254.5	210.5	179.1	166.5	165.0	161.8
12.5°	828.0	683.4	502.8	369.2	254.5	185.4	158.7	147.7	143.0	141.4	139.8
15°	905.0	718.0	490.2	309.5	193.2	152.4	141.4	132.0	127.3	125.7	124.1
17.5°	978.8	749.4	463.5	248.3	157.1	138.3	125.7	117.8	111.5	110.0	110.0
20°	1047.9	776.1	417.9	193.2	141.4	124.1	111.5	102.1	95.9	94.3	94.3
22.5°	1120.2	798.1	361.3	157.1	128.8	110.0	97.4	88.0	81.7	80.1	78.6
25°	1197.2	813.9	297.0	139.8	116.3	97.4	83.3	75.4	70.7	69.2	67.5
27.5°	1280.4	820.1	235.7	127.3	102.1	84.8	72.2	64.4	61.3	59.7	59.7
30°	1355.8	813.9	182.3	113.1	89.5	73.9	62.8	56.6	53.4	51.9	51.9
32.5°	1434.4	798.1	146.1	100.6	78.6	62.8	53.4	48.7	47.2	45.5	45.5
35°	1517.6	777.6	125.7	89.5	67.5	55.0	47.2	44.0	42.5	40.8	40.8
37.5°	1615.1	752.6	114.7	80.1	59.7	48.7	40.8	39.3	37.7	37.7	37.7
40°	1725.1	721.2	106.8	72.2	53.4	42.5	36.1	34.6	33.0	33.0	33.0
42.5°	1841.3	685.0	99.0	64.4	47.2	36.1	31.4	31.4	29.9	29.9	28.2
45°	1971.7	648.9	91.1	56.6	40.8	31.4	26.7	25.2	25.2	23.5	23.5
47.5°	2125.7	615.9	83.3	50.2	36.1	26.7	23.5	22.0	20.5	18.8	18.8
50°	2342.6	612.7	73.9	44.0	33.0	22.0	18.8	17.3	15.8	14.1	14.1
52.5°	2557.8	584.4	62.8	36.1	26.7	18.8	14.1	12.6	11.0	11.0	9.4
55°	2606.5	537.4	55.0	31.4	20.5	14.1	11.0	7.9	7.9	6.2	6.2
57.5°	2713.3	515.4	47.2	25.2	15.8	11.0	6.2	4.7	4.7	4.7	4.7
60°	2923.8	509.0	40.8	22.0	11.0	7.9	4.7	3.2	3.2	1.5	1.5
62.5°	3214.5	502.8	34.6	18.8	7.9	4.7	3.2	1.5	0.0	0.0	0.0
65°	3374.7	460.3	28.2	14.1	6.2	4.7	1.5	0.0	0.0	0.0	0.0
67.5°	3332.4	380.2	25.2	9.4	4.7	3.2	1.5	0.0	0.0	0.0	0.0
69°	3154.8	320.5	20.5	7.9	4.7	3.2	1.5	0.0	0.0	0.0	0.0
70°	2941.1	276.5	18.8	6.2	3.2	1.5	1.5	0.0	0.0	0.0	0.0
72.5°	2088.0	144.5	12.6	4.7	3.2	1.5	0.0	0.0	0.0	0.0	0.0
75°	975.7	64.4	7.9	3.2	1.5	1.5	0.0	0.0	0.0	0.0	0.0
77.5°	215.2	29.9	4.7	3.2	1.5	0.0	0.0	0.0	0.0	0.0	0.0
80°	40.8	11.0	3.2	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	14.1	4.7	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.7	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)