

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: P214677

Luminaire Tested: **ARCH-AF24-80-D-U-T2R-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214677
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-AF24-80-D-U-T2R-7050-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 1050mA 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: 7098 lumens
Efficiency: N/A
Efficacy: 85.5 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 - G2

Input Watts (W): 83
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

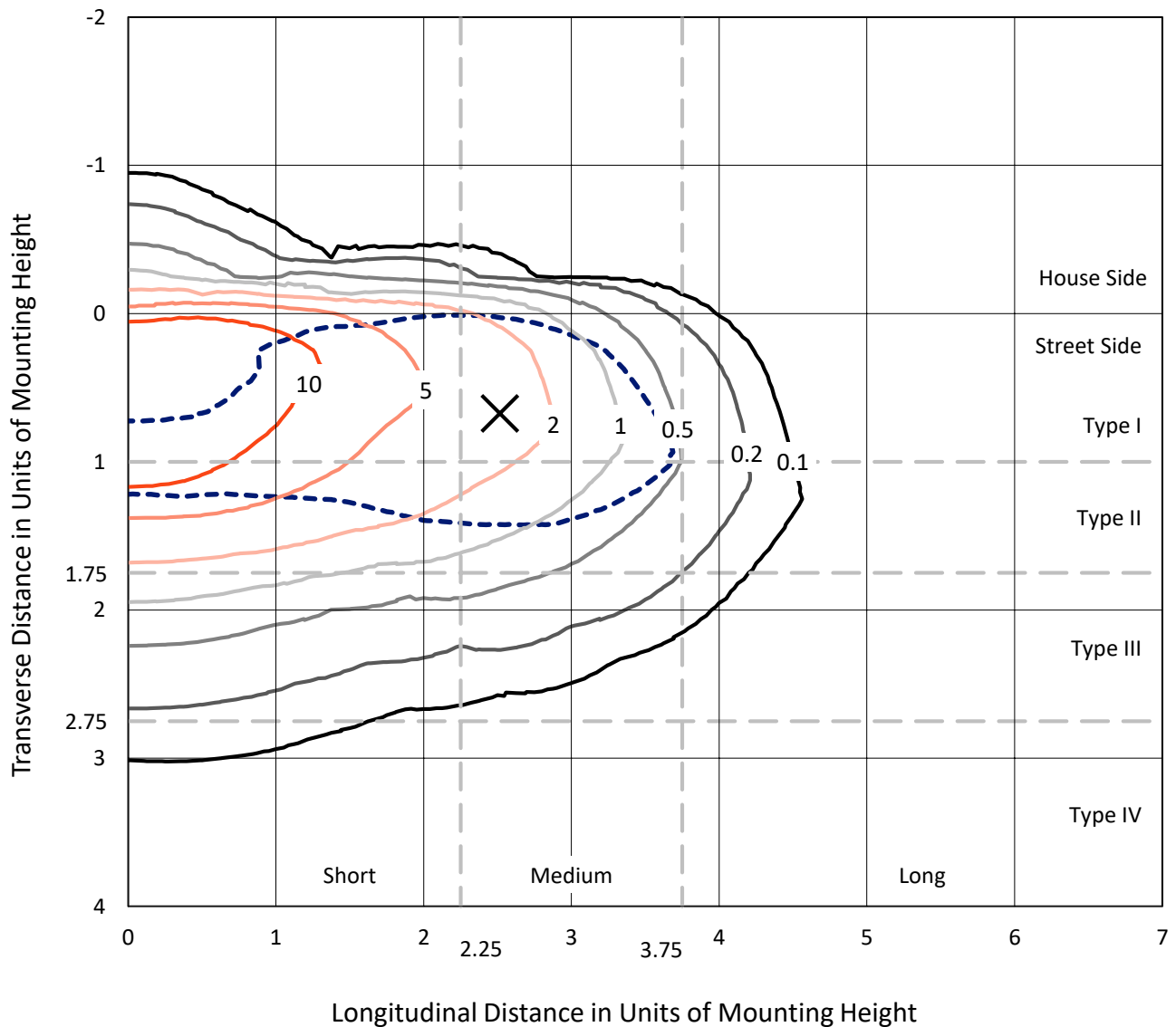


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

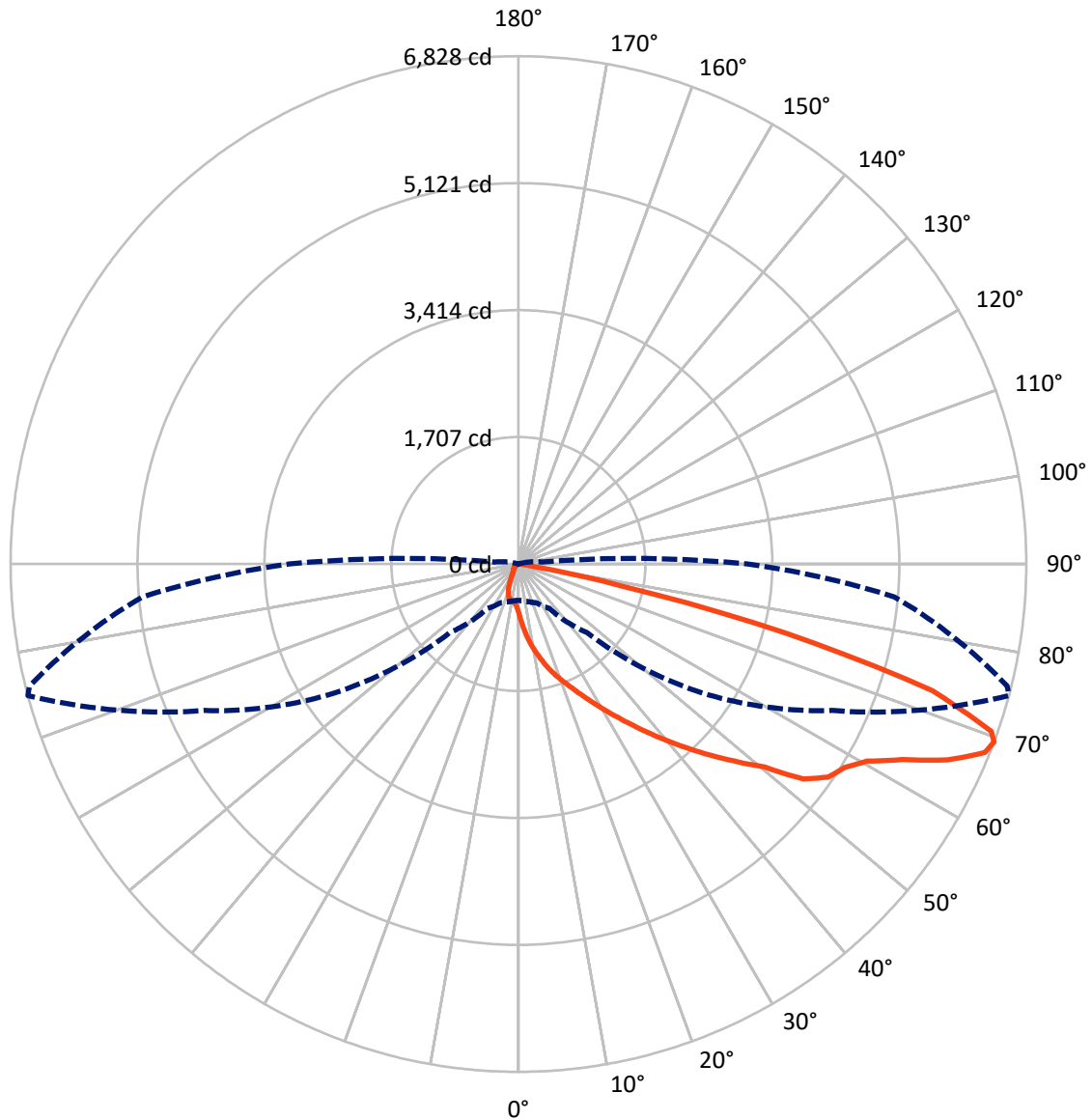


Based on 10 foot mounting height. Maximum calculated value = 18.1 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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



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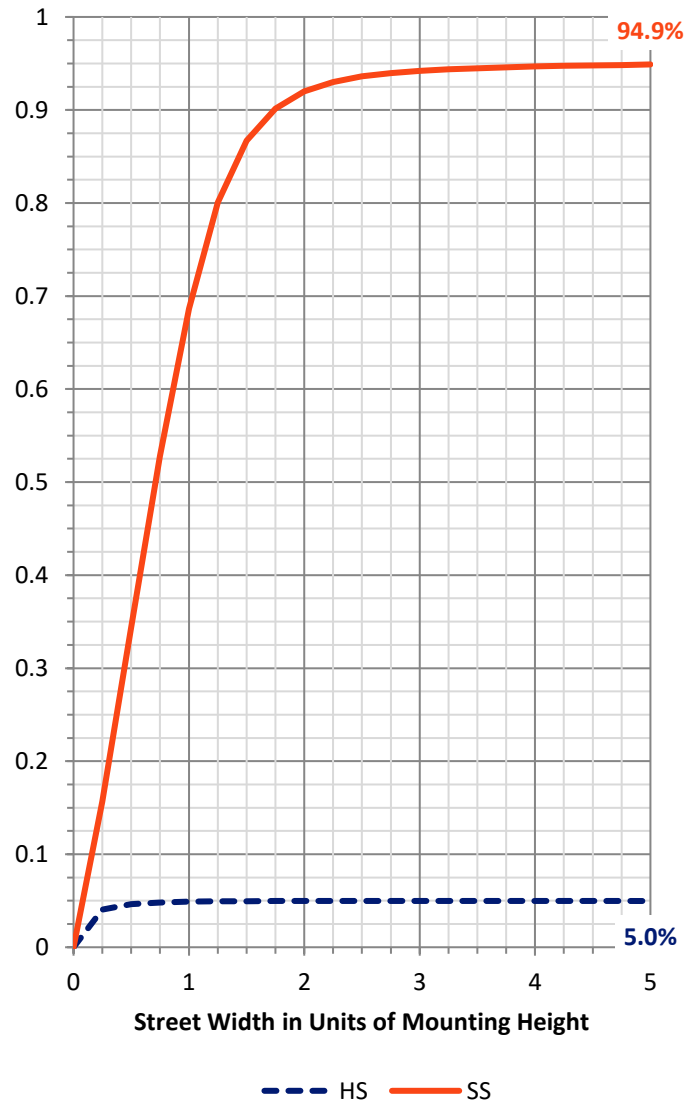
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	354.1	0.0	354.1
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	6743.9	0.0	6743.9
	% Fixture	95.0	0.0	95.0
Total	Lumens	7098.0	0.0	7098.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.0	1.1
10°-20°	275.3	3.9
20°-30°	525.6	7.4
30°-40°	942.9	13.3
40°-50°	1444.6	20.4
50°-60°	1678.9	23.7
60°-70°	1486.7	20.9
70°-80°	641.3	9.0
80°-90°	25.7	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°	7098.0	100.0
0°-180°	7098.0	100.0

Coefficient of Utilization



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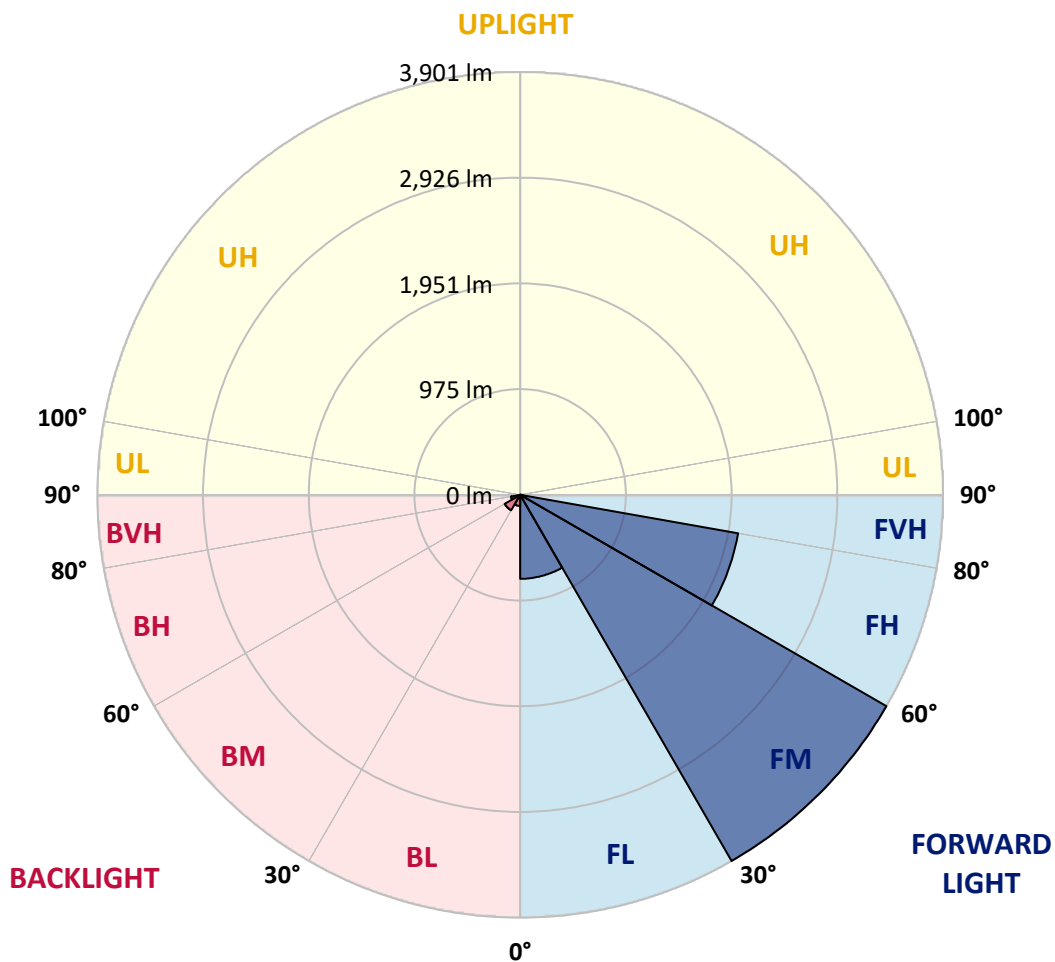
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	775.1	10.9			
FM	(30°-60°)	3901.2	55.0			
FH	(60°-80°)	2042.2	28.8			G2/5000
FVH	(80°-90°)	25.3	0.4			G1/100
BL	(0°-30°)	102.9	1.4	B0/110		
BM	(30°-60°)	165.1	2.3	B0/220		
BH	(60°-80°)	85.8	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°	660.5	660.5	660.5	660.5	660.5	660.5	660.5	660.5	660.5	660.5	660.5
2.5°	1088.0	1077.3	1066.6	1054.3	1026.7	979.2	919.4	855.1	775.4	761.6	697.2
5°	1320.9	1316.3	1305.6	1288.8	1258.1	1206.0	1138.6	1043.6	910.2	887.3	750.9
7.5°	1484.9	1481.8	1472.6	1452.7	1425.1	1373.0	1302.5	1199.9	1045.1	1019.0	818.3
10°	1632.0	1630.5	1622.8	1604.4	1576.8	1520.1	1445.1	1337.8	1173.8	1144.7	896.5
12.5°	1765.3	1766.9	1763.8	1754.6	1734.7	1681.0	1595.2	1478.8	1297.9	1265.8	989.9
15°	1843.5	1848.1	1860.3	1878.7	1884.9	1841.9	1753.1	1624.3	1425.1	1397.6	1097.2
17.5°	1817.4	1822.0	1860.3	1923.2	1982.9	1989.1	1909.4	1762.3	1550.8	1523.2	1202.9
20°	1754.6	1760.7	1800.6	1886.4	2002.9	2084.1	2051.9	1912.4	1670.3	1636.6	1304.1
22.5°	1825.1	1825.1	1837.4	1889.5	1995.2	2122.4	2165.3	2062.6	1792.9	1751.5	1405.2
25°	2067.2	2062.6	2036.6	2015.1	2048.8	2162.2	2251.1	2215.9	1937.0	1889.5	1512.5
27.5°	2373.7	2395.1	2346.1	2268.0	2191.3	2240.4	2327.7	2367.6	2096.3	2047.3	1622.8
30°	2717.0	2726.1	2667.9	2563.7	2428.9	2381.4	2418.1	2497.8	2269.5	2215.9	1737.7
32.5°	3026.5	3018.8	2969.8	2861.0	2694.0	2591.3	2534.6	2602.0	2458.0	2396.7	1855.7
35°	3300.8	3306.9	3247.2	3121.5	2957.5	2848.7	2713.9	2720.0	2669.4	2599.0	1992.1
37.5°	3547.5	3536.8	3480.1	3354.4	3205.8	3087.8	2945.3	2842.6	2900.8	2827.3	2145.4
40°	3748.3	3737.5	3677.8	3555.2	3415.7	3319.2	3207.3	3006.6	3144.5	3060.2	2309.3
42.5°	3907.6	3895.4	3844.8	3726.8	3592.0	3506.1	3452.5	3208.9	3405.0	3320.7	2493.2
45°	3985.8	3975.1	3944.4	3855.5	3737.5	3662.4	3688.5	3441.8	3683.9	3613.4	2695.5
47.5°	3893.8	3889.2	3924.5	3909.2	3841.7	3801.9	3892.3	3696.2	3976.6	3907.6	2928.4
50°	3614.9	3622.6	3725.3	3852.5	3884.6	3932.1	4059.3	3964.3	4290.7	4217.2	3196.6
52.5°	2926.9	2979.0	3288.5	3595.0	3832.5	4011.8	4255.5	4347.4	4802.6	4730.5	3614.9
55°	2185.2	2206.7	2543.8	3067.9	3622.6	4005.7	4401.1	4572.7	5055.4	4981.8	3725.3
57.5°	1733.1	1740.8	1907.8	2442.7	3190.5	3867.8	4477.7	4653.9	5165.7	5104.4	3889.2
60°	1360.8	1370.0	1491.0	1858.8	2582.1	3495.4	4367.4	4724.4	5381.8	5332.8	4175.8
62.5°	1058.9	1068.1	1141.6	1357.7	1937.0	2922.3	4145.2	4837.8	5792.5	5769.5	4644.7
65°	819.8	822.9	873.5	974.6	1368.4	2301.7	3873.9	4943.5	6347.2	6327.3	5024.8
67.5°	605.3	609.9	645.1	708.0	924.0	1653.5	3429.5	4862.3	6765.6	6707.3	5162.7
69°	488.8	493.4	524.1	574.7	729.4	1302.5	3023.4	4661.6	6828.4	6773.2	5075.3
70°	418.3	421.4	452.1	495.0	622.2	1106.4	2701.6	4488.4	6745.6	6692.0	4876.1
72.5°	268.2	283.5	314.1	341.7	412.2	732.5	1823.6	3722.2	5820.1	5728.1	3818.8
75°	148.6	153.2	208.4	242.1	274.3	476.6	1014.5	2321.6	3702.3	3637.9	2042.7
77.5°	122.6	125.7	147.1	183.9	183.9	266.6	383.1	914.8	1408.3	1270.4	553.2
80°	85.8	88.9	111.9	121.1	131.8	150.2	124.1	200.7	217.6	193.1	82.7
82.5°	59.8	62.8	76.6	99.6	105.7	70.5	46.0	59.8	62.8	62.8	32.2
85°	10.7	15.3	56.7	82.7	62.8	21.5	26.1	21.5	19.9	21.5	7.7
87.5°	0.0	0.0	35.2	39.8	33.7	9.2	10.7	7.7	4.6	6.1	3.1
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°	660.5	660.5	660.5	660.5	660.5	660.5	660.5	660.5	660.5	660.5	660.5
2.5°	665.1	632.9	577.7	537.9	504.2	478.1	467.4	450.5	438.3	444.4	436.7
5°	683.5	626.8	537.9	481.2	441.3	407.6	380.0	358.6	341.7	338.7	335.6
7.5°	712.6	631.4	514.9	444.4	384.6	332.5	289.6	257.4	232.9	232.9	223.7
10°	752.4	643.6	501.1	407.6	318.7	248.2	205.3	174.7	162.4	160.9	157.8
12.5°	807.6	666.6	490.4	360.1	248.2	180.8	154.8	144.0	139.4	137.9	136.4
15°	882.7	700.3	478.1	301.9	188.5	148.6	137.9	128.7	124.1	122.6	121.1
17.5°	954.7	731.0	452.1	242.1	153.2	134.9	122.6	114.9	108.8	107.3	107.3
20°	1022.1	757.0	407.6	188.5	137.9	121.1	108.8	99.6	93.5	91.9	91.9
22.5°	1092.6	778.5	352.5	153.2	125.7	107.3	95.0	85.8	79.7	78.2	76.6
25°	1167.7	793.8	289.6	136.4	113.4	95.0	81.2	73.6	69.0	67.4	65.9
27.5°	1248.9	799.9	229.9	124.1	99.6	82.7	70.5	62.8	59.8	58.2	58.2
30°	1322.5	793.8	177.8	110.3	87.3	72.0	61.3	55.2	52.1	50.6	50.6
32.5°	1399.1	778.5	142.5	98.1	76.6	61.3	52.1	47.5	46.0	44.4	44.4
35°	1480.3	758.5	122.6	87.3	65.9	53.6	46.0	42.9	41.4	39.8	39.8
37.5°	1575.3	734.0	111.9	78.2	58.2	47.5	39.8	38.3	36.8	36.8	36.8
40°	1682.6	703.4	104.2	70.5	52.1	41.4	35.2	33.7	32.2	32.2	32.2
42.5°	1796.0	668.1	96.5	62.8	46.0	35.2	30.6	30.6	29.1	29.1	27.6
45°	1923.2	632.9	88.9	55.2	39.8	30.6	26.1	24.5	24.5	23.0	23.0
47.5°	2073.3	600.7	81.2	49.0	35.2	26.1	23.0	21.5	19.9	18.4	18.4
50°	2284.8	597.6	72.0	42.9	32.2	21.5	18.4	16.9	15.3	13.8	13.8
52.5°	2494.8	570.1	61.3	35.2	26.1	18.4	13.8	12.3	10.7	10.7	9.2
55°	2542.3	524.1	53.6	30.6	19.9	13.8	10.7	7.7	7.7	6.1	6.1
57.5°	2646.5	502.6	46.0	24.5	15.3	10.7	6.1	4.6	4.6	4.6	4.6
60°	2851.8	496.5	39.8	21.5	10.7	7.7	4.6	3.1	3.1	1.5	1.5
62.5°	3135.3	490.4	33.7	18.4	7.7	4.6	3.1	1.5	0.0	0.0	0.0
65°	3291.6	449.0	27.6	13.8	6.1	4.6	1.5	0.0	0.0	0.0	0.0
67.5°	3250.2	370.8	24.5	9.2	4.6	3.1	1.5	0.0	0.0	0.0	0.0
69°	3077.1	312.6	19.9	7.7	4.6	3.1	1.5	0.0	0.0	0.0	0.0
70°	2868.7	269.7	18.4	6.1	3.1	1.5	1.5	0.0	0.0	0.0	0.0
72.5°	2036.6	141.0	12.3	4.6	3.1	1.5	0.0	0.0	0.0	0.0	0.0
75°	951.6	62.8	7.7	3.1	1.5	1.5	0.0	0.0	0.0	0.0	0.0
77.5°	209.9	29.1	4.6	3.1	1.5	0.0	0.0	0.0	0.0	0.0	0.0
80°	39.8	10.7	3.1	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	13.8	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)