

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: P214676

Luminaire Tested: **ARCH-AF24-70-D-U-T2R-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214676
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-AF24-70-D-U-T2R-7050-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 930mA 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: 6568 lumens
Efficiency: N/A
Efficacy: 88.8 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): 74
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

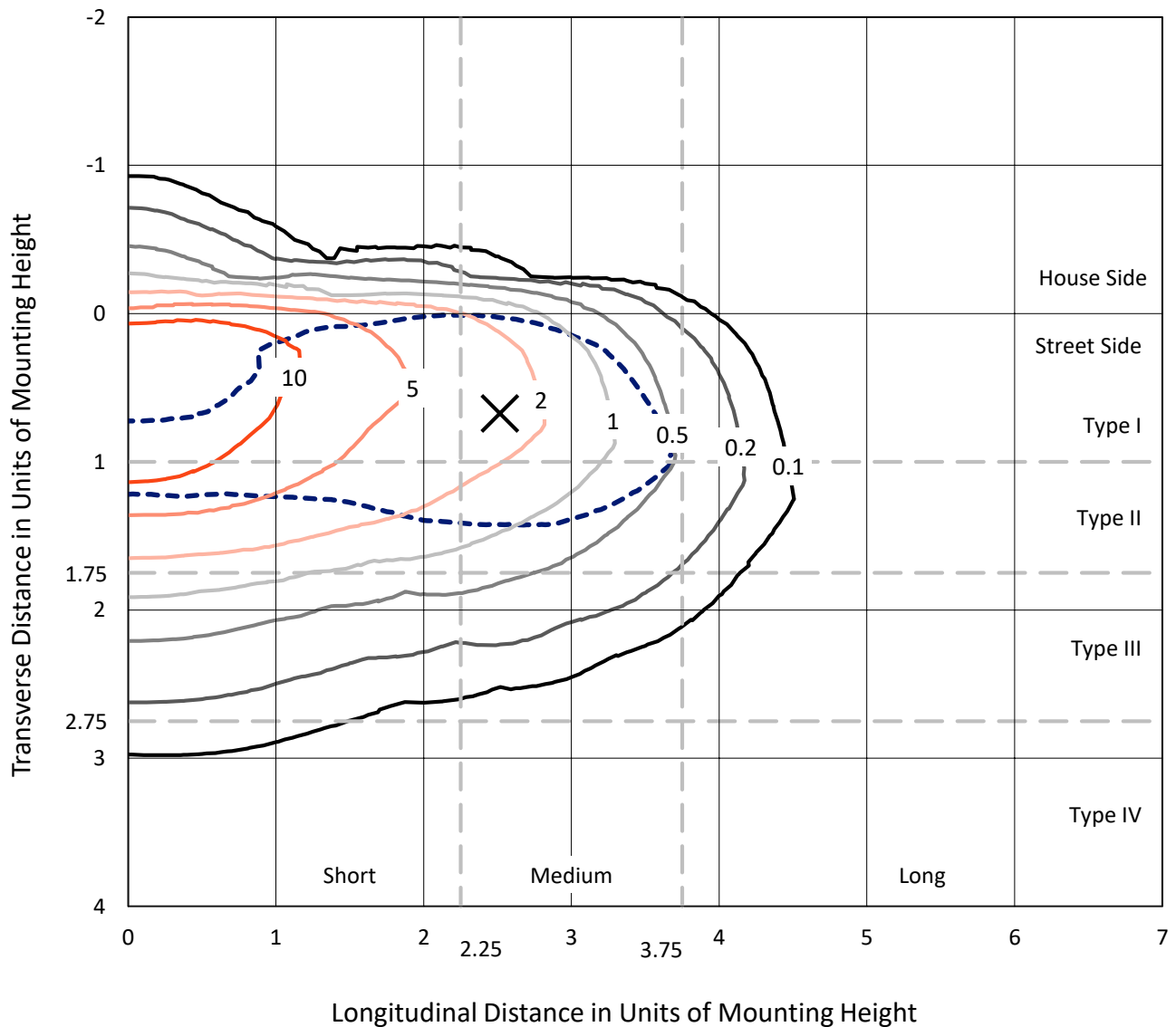


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

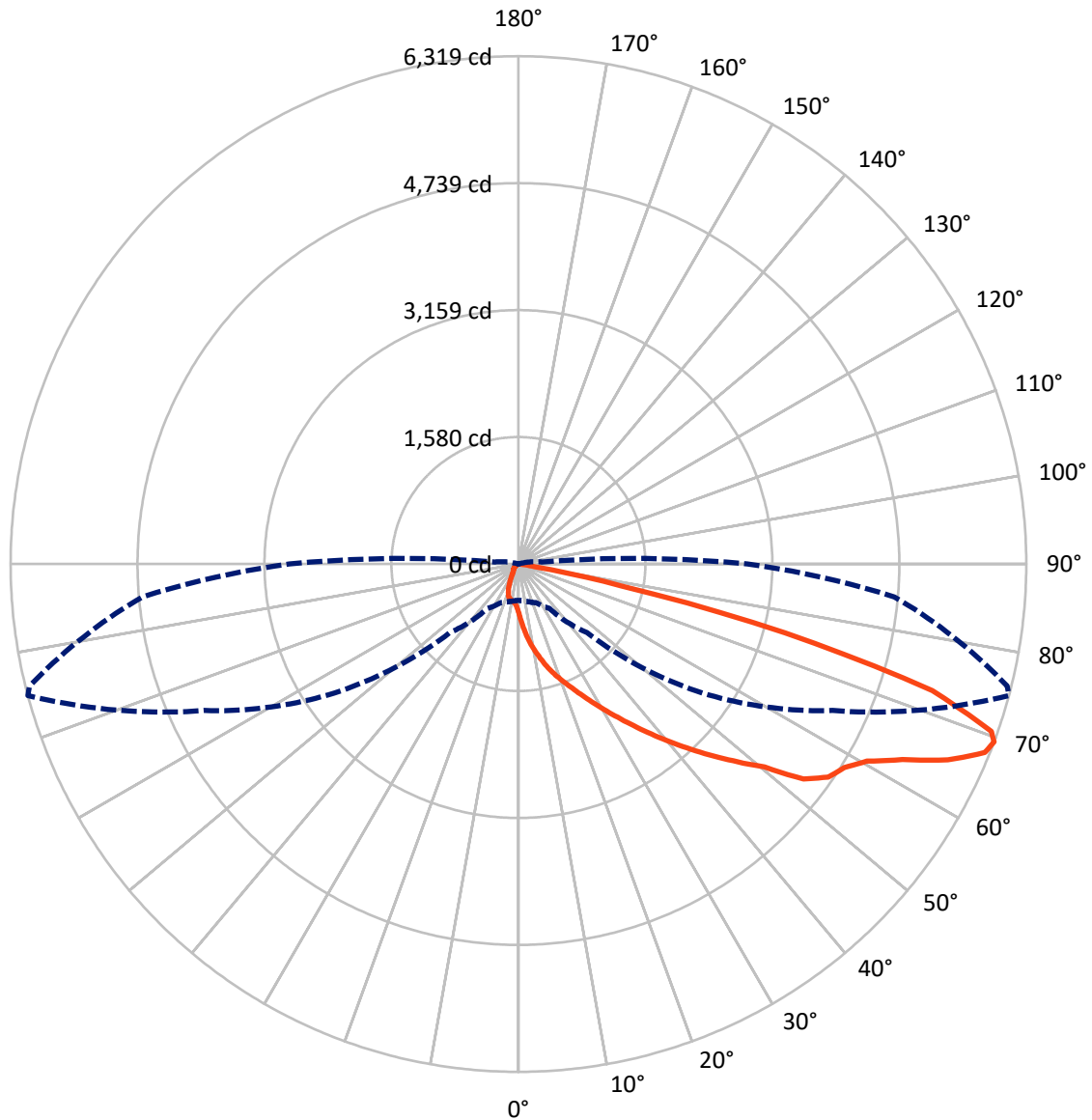


Based on 10 foot mounting height. Maximum calculated value = 16.7 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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

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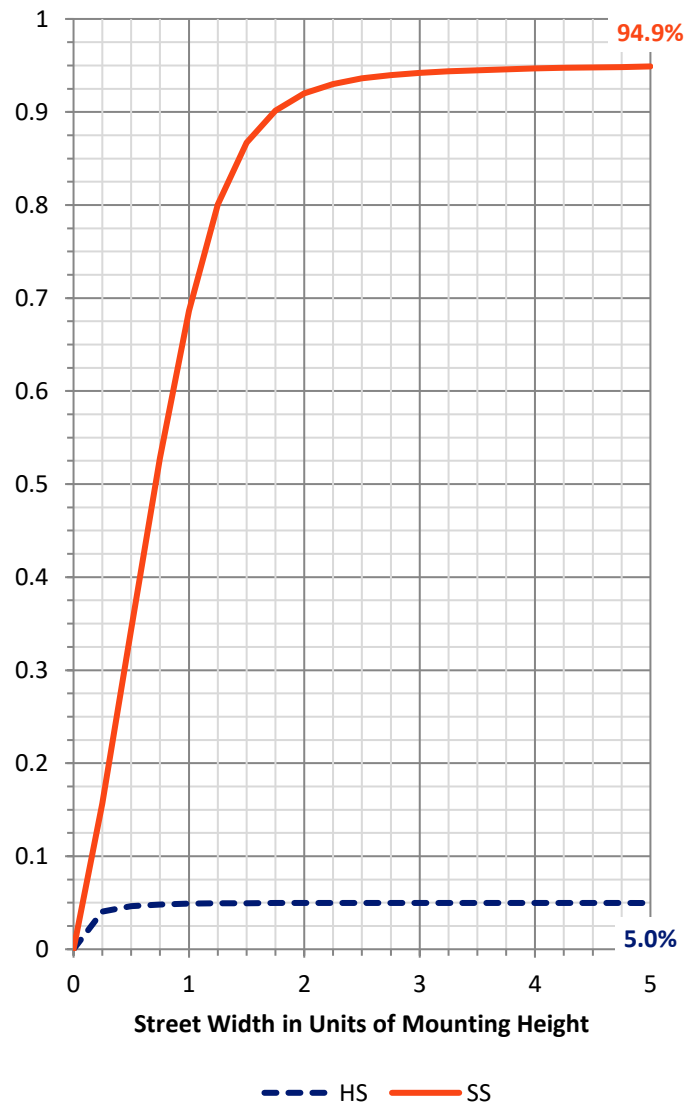
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	327.7	0.0	327.7
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	6240.3	0.0	6240.3
	% Fixture	95.0	0.0	95.0
Total	Lumens	6568.0	0.0	6568.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.3	1.1
10°-20°	254.8	3.9
20°-30°	486.4	7.4
30°-40°	872.5	13.3
40°-50°	1336.7	20.4
50°-60°	1553.6	23.7
60°-70°	1375.7	20.9
70°-80°	593.4	9.0
80°-90°	23.8	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°	6568.0	100.0
0°-180°	6568.0	100.0

Coefficient of Utilization



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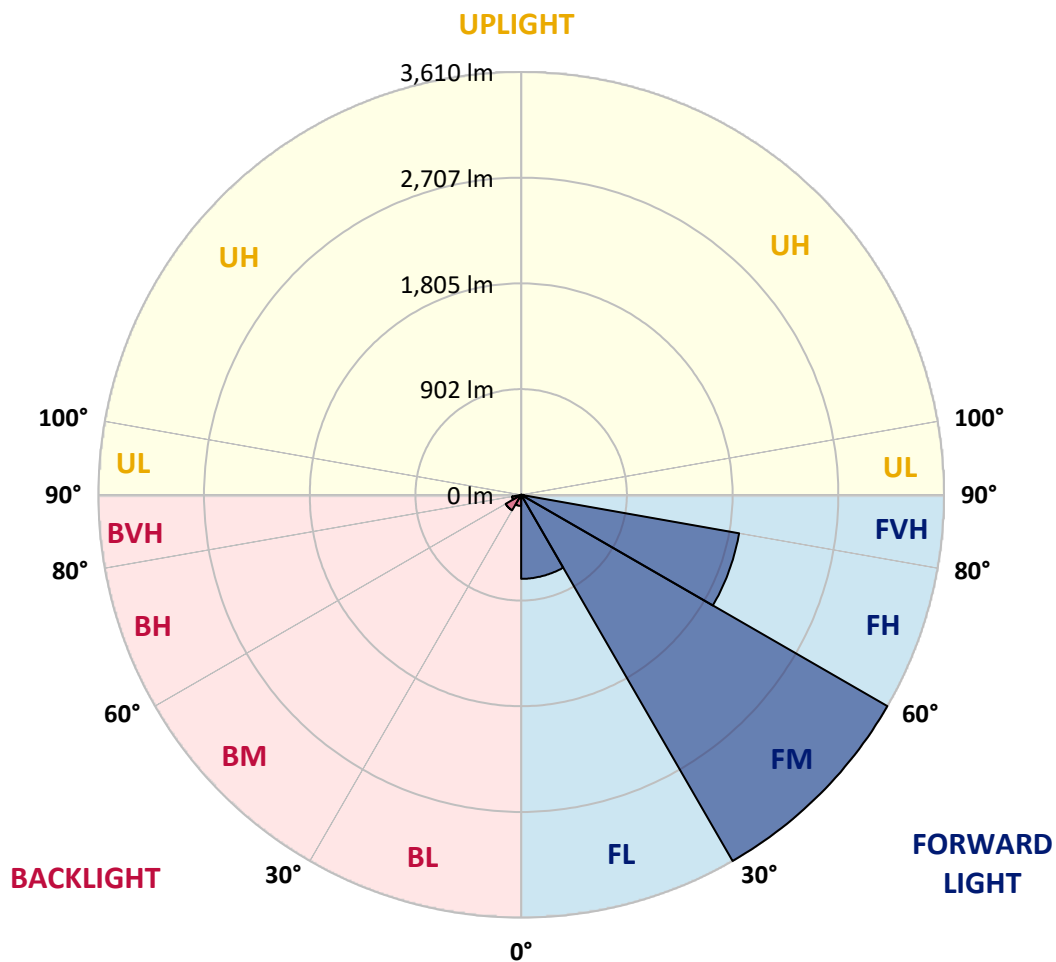
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	717.2	10.9			
FM	(30°-60°)	3609.9	55.0			
FH	(60°-80°)	1889.7	28.8			G2/5000
FVH	(80°-90°)	23.4	0.4			G1/100
BL	(0°-30°)	95.2	1.4	B0/110		
BM	(30°-60°)	152.8	2.3	B0/220		
BH	(60°-80°)	79.4	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-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	611.1	611.1	611.1	611.1	611.1	611.1	611.1	611.1	611.1	611.1	611.1
2.5°	1006.8	996.8	986.9	975.6	950.0	906.1	850.8	791.2	717.5	704.7	645.2
5°	1222.3	1218.0	1208.1	1192.5	1164.2	1116.0	1053.6	965.6	842.3	821.0	694.8
7.5°	1374.0	1371.2	1362.7	1344.2	1318.7	1270.5	1205.3	1110.3	967.1	943.0	757.2
10°	1510.2	1508.7	1501.6	1484.6	1459.1	1406.6	1337.2	1237.9	1086.2	1059.2	829.5
12.5°	1633.5	1634.9	1632.1	1623.6	1605.2	1555.5	1476.1	1368.4	1201.0	1171.3	916.0
15°	1705.8	1710.1	1721.4	1738.4	1744.1	1704.4	1622.2	1503.1	1318.7	1293.2	1015.3
17.5°	1681.7	1686.0	1721.4	1779.6	1834.9	1840.5	1766.8	1630.7	1435.0	1409.5	1113.1
20°	1623.6	1629.3	1666.1	1745.5	1853.3	1928.5	1898.7	1769.6	1545.6	1514.4	1206.7
22.5°	1688.8	1688.8	1700.2	1748.4	1846.2	1963.9	2003.6	1908.6	1659.0	1620.8	1300.3
25°	1912.9	1908.6	1884.5	1864.6	1895.8	2000.8	2083.0	2050.4	1792.3	1748.4	1399.5
27.5°	2196.5	2216.3	2170.9	2098.6	2027.7	2073.1	2153.9	2190.8	1939.8	1894.4	1501.6
30°	2514.1	2522.6	2468.7	2372.3	2247.5	2203.5	2237.6	2311.3	2100.0	2050.4	1608.0
32.5°	2800.5	2793.4	2748.0	2647.4	2492.8	2397.8	2345.3	2407.7	2274.4	2217.7	1717.2
35°	3054.3	3060.0	3004.7	2888.4	2736.7	2636.0	2511.2	2516.9	2470.1	2404.9	1843.4
37.5°	3282.6	3272.7	3220.2	3104.0	2966.4	2857.2	2725.4	2630.4	2684.2	2616.2	1985.2
40°	3468.4	3458.5	3403.2	3289.7	3160.7	3071.3	2967.8	2782.1	2909.7	2831.7	2136.9
42.5°	3615.9	3604.5	3557.7	3448.5	3323.7	3244.3	3194.7	2969.3	3150.8	3072.8	2307.1
45°	3688.2	3678.2	3649.9	3567.6	3458.5	3389.0	3413.1	3184.8	3408.8	3343.6	2494.2
47.5°	3603.1	3598.8	3631.5	3617.3	3554.9	3518.0	3601.7	3420.2	3679.7	3615.9	2709.8
50°	3345.0	3352.1	3447.1	3564.8	3594.6	3638.5	3756.2	3668.3	3970.3	3902.3	2957.9
52.5°	2708.3	2756.6	3043.0	3326.6	3546.4	3712.3	3937.7	4022.8	4444.0	4377.3	3345.0
55°	2022.0	2041.9	2353.8	2838.8	3352.1	3706.6	4072.4	4231.3	4677.9	4609.9	3447.1
57.5°	1603.7	1610.8	1765.4	2260.3	2952.2	3579.0	4143.3	4306.4	4780.0	4723.3	3598.8
60°	1259.2	1267.7	1379.7	1720.0	2389.3	3234.4	4041.2	4371.6	4980.0	4934.6	3864.0
62.5°	979.8	988.3	1056.4	1256.3	1792.3	2704.1	3835.6	4476.6	5360.0	5338.7	4297.9
65°	758.6	761.5	808.2	901.8	1266.3	2129.8	3584.7	4574.4	5873.3	5854.8	4649.6
67.5°	560.1	564.4	597.0	655.1	855.0	1530.0	3173.4	4499.3	6260.4	6206.5	4777.2
69°	452.3	456.6	484.9	531.7	675.0	1205.3	2797.7	4313.5	6318.5	6267.5	4696.4
70°	387.1	389.9	418.3	458.0	575.7	1023.8	2499.9	4153.3	6242.0	6192.3	4512.0
72.5°	248.1	262.3	290.7	316.2	381.4	677.8	1687.4	3444.3	5385.5	5300.4	3533.6
75°	137.5	141.8	192.8	224.0	253.8	441.0	938.7	2148.2	3425.8	3366.3	1890.2
77.5°	113.4	116.3	136.1	170.2	170.2	246.7	354.5	846.5	1303.1	1175.5	511.9
80°	79.4	82.2	103.5	112.0	121.9	139.0	114.9	185.8	201.4	178.7	76.6
82.5°	55.3	58.1	70.9	92.2	97.8	65.2	42.5	55.3	58.1	58.1	29.8
85°	9.9	14.2	52.5	76.6	58.1	19.9	24.1	19.9	18.4	19.9	7.1
87.5°	0.0	0.0	32.6	36.9	31.2	8.5	9.9	7.1	4.3	5.7	2.8
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°	611.1	611.1	611.1	611.1	611.1	611.1	611.1	611.1	611.1	611.1	611.1
2.5°	615.4	585.6	534.6	497.7	466.5	442.4	432.5	416.9	405.5	411.2	404.1
5°	632.4	580.0	497.7	445.2	408.4	377.2	351.7	331.8	316.2	313.4	310.5
7.5°	659.4	584.2	476.4	411.2	355.9	307.7	268.0	238.2	215.5	215.5	207.0
10°	696.2	595.6	463.7	377.2	294.9	229.7	190.0	161.6	150.3	148.9	146.1
12.5°	747.3	616.8	453.8	333.2	229.7	167.3	143.2	133.3	129.0	127.6	126.2
15°	816.8	648.0	442.4	279.3	174.4	137.5	127.6	119.1	114.9	113.4	112.0
17.5°	883.4	676.4	418.3	224.0	141.8	124.8	113.4	106.3	100.7	99.3	99.3
20°	945.8	700.5	377.2	174.4	127.6	112.0	100.7	92.2	86.5	85.1	85.1
22.5°	1011.0	720.3	326.1	141.8	116.3	99.3	87.9	79.4	73.7	72.3	70.9
25°	1080.5	734.5	268.0	126.2	104.9	87.9	75.2	68.1	63.8	62.4	61.0
27.5°	1155.7	740.2	212.7	114.9	92.2	76.6	65.2	58.1	55.3	53.9	53.9
30°	1223.7	734.5	164.5	102.1	80.8	66.6	56.7	51.0	48.2	46.8	46.8
32.5°	1294.6	720.3	131.9	90.8	70.9	56.7	48.2	44.0	42.5	41.1	41.1
35°	1369.8	701.9	113.4	80.8	61.0	49.6	42.5	39.7	38.3	36.9	36.9
37.5°	1457.7	679.2	103.5	72.3	53.9	44.0	36.9	35.4	34.0	34.0	34.0
40°	1556.9	650.9	96.4	65.2	48.2	38.3	32.6	31.2	29.8	29.8	29.8
42.5°	1661.9	618.2	89.3	58.1	42.5	32.6	28.4	28.4	26.9	26.9	25.5
45°	1779.6	585.6	82.2	51.0	36.9	28.4	24.1	22.7	22.7	21.3	21.3
47.5°	1918.5	555.8	75.2	45.4	32.6	24.1	21.3	19.9	18.4	17.0	17.0
50°	2114.2	553.0	66.6	39.7	29.8	19.9	17.0	15.6	14.2	12.8	12.8
52.5°	2308.5	527.5	56.7	32.6	24.1	17.0	12.8	11.3	9.9	9.9	8.5
55°	2352.4	484.9	49.6	28.4	18.4	12.8	9.9	7.1	7.1	5.7	5.7
57.5°	2448.9	465.1	42.5	22.7	14.2	9.9	5.7	4.3	4.3	4.3	4.3
60°	2638.9	459.4	36.9	19.9	9.9	7.1	4.3	2.8	2.8	1.4	1.4
62.5°	2901.2	453.8	31.2	17.0	7.1	4.3	2.8	1.4	0.0	0.0	0.0
65°	3045.8	415.5	25.5	12.8	5.7	4.3	1.4	0.0	0.0	0.0	0.0
67.5°	3007.5	343.2	22.7	8.5	4.3	2.8	1.4	0.0	0.0	0.0	0.0
69°	2847.3	289.3	18.4	7.1	4.3	2.8	1.4	0.0	0.0	0.0	0.0
70°	2654.5	249.6	17.0	5.7	2.8	1.4	1.4	0.0	0.0	0.0	0.0
72.5°	1884.5	130.5	11.3	4.3	2.8	1.4	0.0	0.0	0.0	0.0	0.0
75°	880.6	58.1	7.1	2.8	1.4	1.4	0.0	0.0	0.0	0.0	0.0
77.5°	194.3	26.9	4.3	2.8	1.4	0.0	0.0	0.0	0.0	0.0	0.0
80°	36.9	9.9	2.8	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	12.8	4.3	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.3	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.4	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)