

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: P398145

Luminaire Tested: **ARCH-S-PA1-90-750-U-T4W-HSS**

Issue Date: 5/19/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P398145  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-568-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/19/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-S-PA1-90-750-U-T4W-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 1180mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8216 lumens  
Efficiency: N/A  
Efficacy: 87.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G2

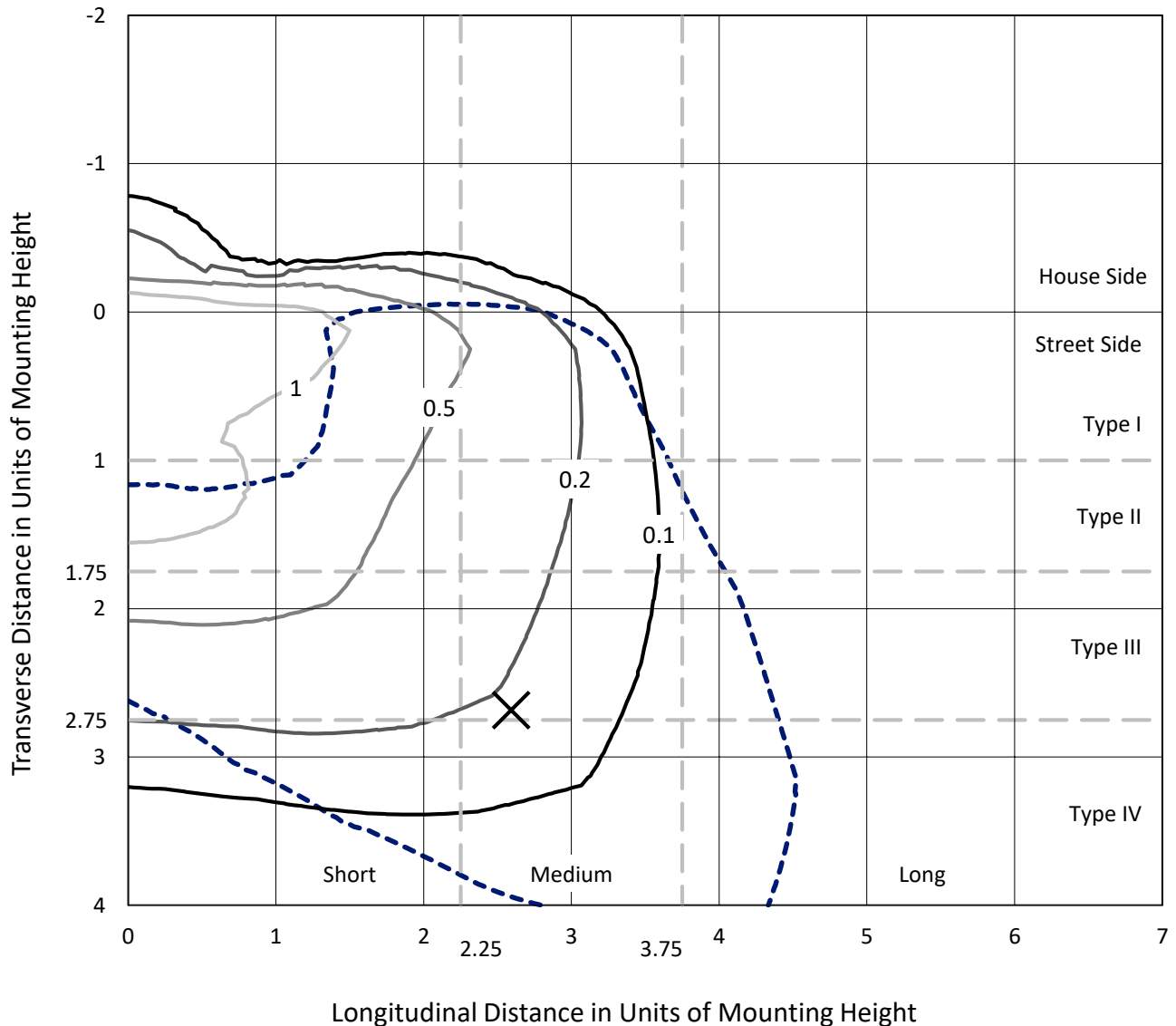
Input Watts (W): 94  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

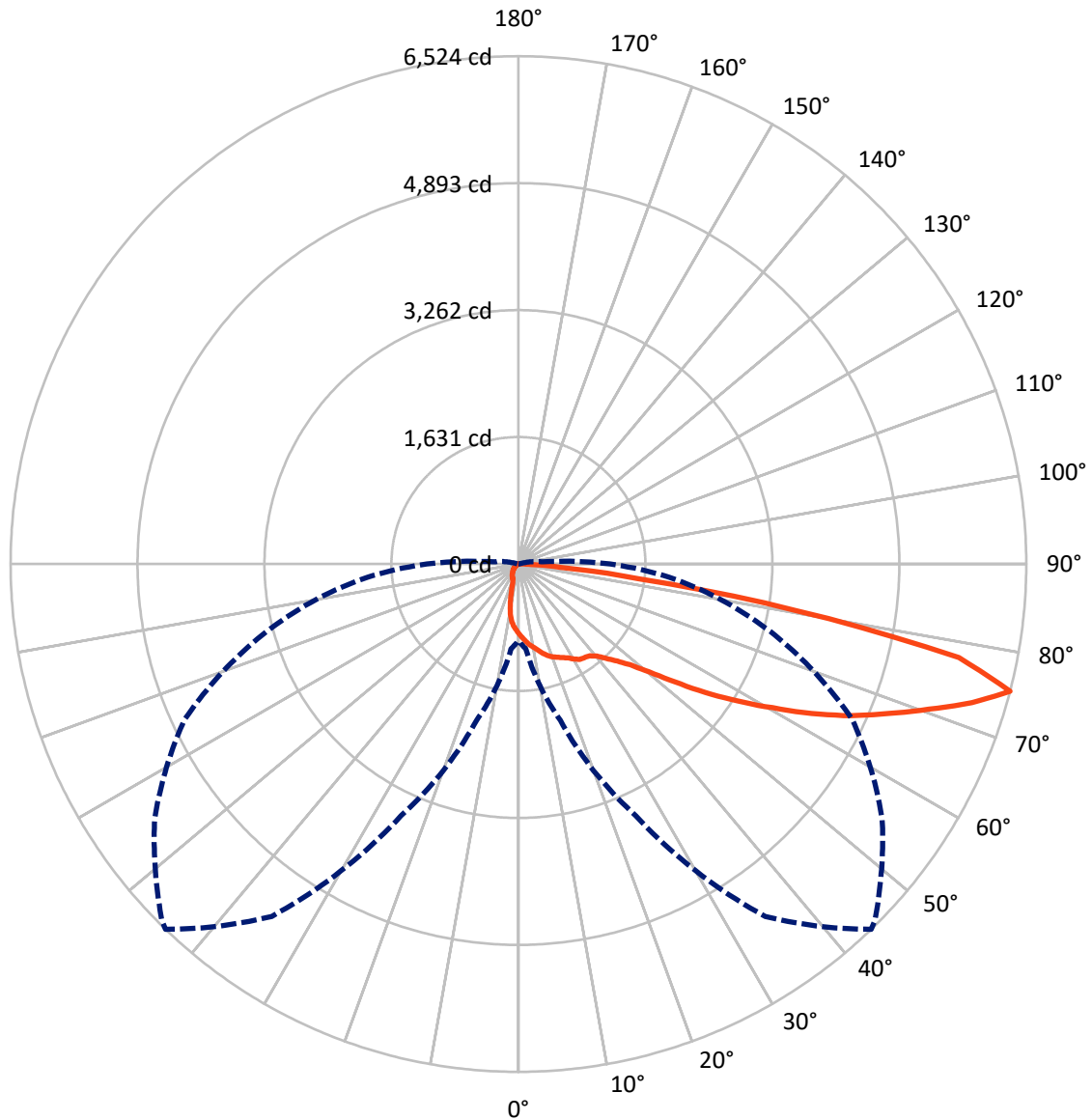
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral    - - - Horizontal Cone Through 75-Deg Vertical



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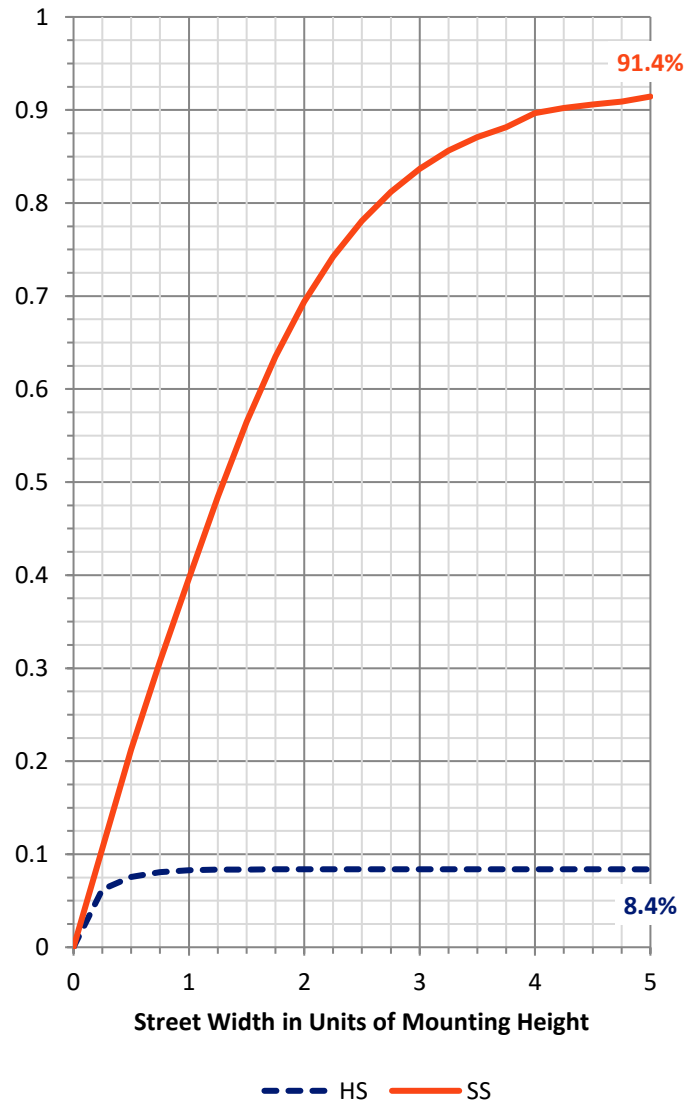
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	692.9	0.0	692.9
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	7523.1	0.0	7523.1
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	8216.0	0.0	8216.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.3	1.0
10°-20°	236.3	2.9
20°-30°	390.0	4.7
30°-40°	566.0	6.9
40°-50°	920.1	11.2
50°-60°	1622.1	19.7
60°-70°	2331.3	28.4
70°-80°	1866.8	22.7
80°-90°	198.9	2.4
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°	8216.0	100.0
0°-180°	8216.0	100.0



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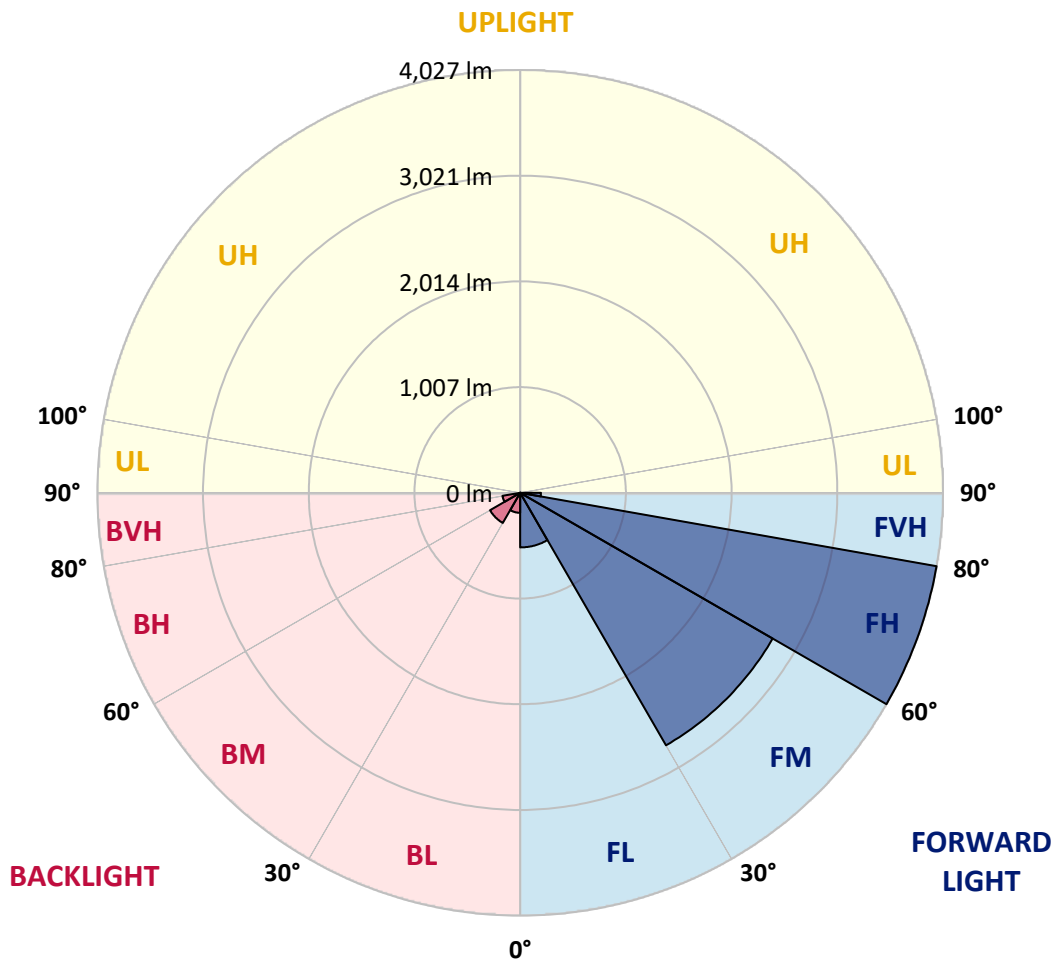
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	520.3	6.3			
FM	(30°-60°)	2777.1	33.8			
FH	(60°-80°)	4027.3	49.0			G2/5000
FVH	(80°-90°)	198.4	2.4			G2/225
BL	(0°-30°)	190.4	2.3	B1/500		
BM	(30°-60°)	331.2	4.0	B1/1000		
BH	(60°-80°)	170.8	2.1	B1/500		G1/500
BVH	(80°-90°)	0.5	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 IV Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	894.3	894.3	894.3	894.3	894.3	894.3	894.3	894.3	894.3	894.3	894.3
2.5°	974.6	973.1	968.6	961.0	953.4	945.8	944.3	932.2	918.5	907.9	898.8
5°	1061.0	1059.5	1051.9	1035.2	1018.6	998.9	997.4	968.6	942.8	914.0	889.7
7.5°	1150.4	1147.4	1133.8	1108.0	1079.2	1048.9	1045.9	1003.4	965.5	927.6	892.8
10°	1220.2	1217.1	1197.4	1167.1	1127.7	1089.8	1085.3	1041.3	1003.4	954.9	907.9
12.5°	1288.4	1282.3	1256.5	1223.2	1174.7	1138.3	1133.8	1088.3	1042.8	992.8	935.2
15°	1352.0	1344.5	1320.2	1277.8	1226.2	1191.4	1188.3	1139.8	1092.8	1035.2	971.6
17.5°	1396.0	1393.0	1364.2	1317.2	1267.1	1238.4	1235.3	1185.3	1138.3	1077.7	1009.5
20°	1418.7	1418.7	1391.4	1339.9	1294.4	1274.7	1270.2	1223.2	1177.7	1120.1	1048.9
22.5°	1423.3	1427.8	1406.6	1350.5	1317.2	1300.5	1297.5	1256.5	1212.6	1159.5	1092.8
25°	1432.4	1432.4	1421.8	1361.1	1336.9	1332.3	1330.8	1294.4	1255.0	1202.0	1136.8
27.5°	1443.0	1443.0	1435.4	1376.3	1367.2	1365.7	1364.2	1347.5	1315.7	1253.5	1188.3
30°	1470.3	1471.8	1465.7	1406.6	1400.5	1417.2	1420.2	1411.1	1371.7	1294.4	1241.4
32.5°	1538.5	1524.8	1508.2	1427.8	1438.4	1459.6	1461.2	1443.0	1400.5	1338.4	1305.0
35°	1709.7	1629.4	1553.6	1446.0	1450.6	1471.8	1474.8	1473.3	1447.5	1394.5	1377.8
37.5°	1868.9	1755.2	1647.6	1488.4	1473.3	1496.0	1502.1	1527.9	1508.2	1471.8	1476.3
40°	1961.4	1917.4	1841.6	1605.2	1518.8	1553.6	1559.7	1599.1	1591.5	1576.4	1605.2
42.5°	2246.3	2249.3	2167.5	1779.5	1602.1	1658.2	1665.8	1697.6	1708.2	1715.8	1785.5
45°	2576.7	2587.4	2567.6	2093.2	1759.8	1778.0	1788.6	1831.0	1870.4	1918.9	2046.2
47.5°	2973.9	2964.8	2892.0	2476.7	2034.1	1932.6	1940.1	2022.0	2090.2	2196.3	2378.2
50°	3325.5	3348.2	3210.3	2834.4	2420.6	2176.6	2169.0	2249.3	2372.1	2520.7	2749.5
52.5°	3680.2	3646.8	3460.4	3189.1	2878.4	2508.5	2485.8	2529.8	2702.5	2878.4	3113.3
55°	3774.2	3777.2	3713.5	3577.1	3260.3	2911.7	2873.8	2870.8	3086.0	3205.8	3495.3
57.5°	3959.1	3966.7	3981.8	4009.1	3859.0	3314.9	3275.5	3233.1	3442.2	3511.9	3878.8
60°	4147.0	4156.1	4248.6	4395.6	4295.6	3749.9	3707.5	3607.4	3724.1	3818.1	4281.9
62.5°	4122.8	4186.4	4454.7	4747.3	4735.1	4227.4	4174.3	3933.3	4007.6	4089.4	4651.8
65°	3722.6	3790.8	4394.1	4844.3	5176.2	4698.8	4612.4	4269.8	4274.4	4372.9	5008.0
67.5°	3364.9	3439.2	4015.2	4803.3	5467.2	5121.7	5032.2	4607.8	4536.6	4700.3	5199.0
70°	3158.8	3233.1	3713.5	4676.0	5549.1	5590.0	5512.7	4994.3	4848.8	4998.9	4985.2
72.5°	2472.2	2588.9	3328.5	4433.5	5637.0	6091.7	6031.1	5483.9	5114.1	4686.6	3795.4
75°	985.2	1092.8	2078.1	3568.0	5526.4	6523.7	6476.7	5703.7	4733.6	3346.7	1943.2
77.5°	297.1	318.3	577.5	1764.3	4051.5	5784.0	5768.9	4795.8	3349.8	1553.6	530.5
80°	98.5	109.1	177.3	486.5	1849.2	3613.5	3681.7	3055.7	1521.8	356.2	107.6
82.5°	40.9	45.5	89.4	195.5	654.8	1556.7	1533.9	1368.7	530.5	221.3	39.4
85°	10.6	13.6	40.9	112.2	239.5	536.6	563.9	459.3	300.1	183.4	12.1
87.5°	0.0	0.0	19.7	45.5	107.6	162.2	169.8	139.4	169.8	137.9	6.1
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°	894.3	894.3	894.3	894.3	894.3	894.3	894.3	894.3	894.3	894.3	894.3
2.5°	891.2	883.7	870.0	860.9	848.8	845.8	839.7	832.1	830.6	823.0	824.6
5°	876.1	864.0	839.7	823.0	803.3	797.3	786.7	779.1	773.0	762.4	763.9
7.5°	873.1	854.9	821.5	789.7	757.9	735.1	703.3	677.5	656.3	633.6	638.1
10°	883.7	860.9	813.9	770.0	712.4	639.6	556.3	501.7	474.4	447.1	450.2
12.5°	904.9	877.6	817.0	750.3	633.6	509.3	394.1	319.8	300.1	288.0	289.5
15°	936.7	903.4	826.1	712.4	527.5	368.3	262.2	230.4	238.0	242.5	242.5
17.5°	970.1	932.2	833.7	644.2	407.7	257.7	213.7	210.7	221.3	231.9	231.9
20°	1011.0	962.5	835.2	557.8	294.1	209.2	201.6	201.6	209.2	221.3	221.3
22.5°	1050.4	995.8	821.5	459.3	224.3	194.0	194.0	194.0	198.6	210.7	212.2
25°	1097.4	1036.8	792.7	354.7	192.5	184.9	184.9	186.4	189.5	200.1	201.6
27.5°	1147.4	1079.2	744.2	259.2	175.8	174.3	175.8	177.3	178.9	189.5	192.5
30°	1205.0	1126.2	682.1	194.0	160.7	160.7	165.2	168.2	168.2	177.3	180.4
32.5°	1271.7	1188.3	607.8	160.7	145.5	144.0	151.6	156.1	156.1	163.7	166.7
35°	1355.1	1252.0	518.4	142.5	133.4	130.4	133.4	141.0	144.0	150.1	151.6
37.5°	1465.7	1327.8	422.9	131.9	124.3	118.2	118.2	119.7	125.8	131.9	133.4
40°	1606.7	1411.1	328.9	124.3	115.2	109.1	104.6	103.1	101.6	106.1	109.1
42.5°	1784.0	1505.1	245.5	116.7	107.6	98.5	92.5	86.4	78.8	77.3	78.8
45°	2011.4	1620.3	181.9	110.6	103.1	89.4	78.8	68.2	54.6	50.0	51.5
47.5°	2279.7	1740.1	142.5	104.6	100.0	78.8	65.2	47.0	33.3	30.3	31.8
50°	2564.6	1855.3	121.3	97.0	94.0	68.2	47.0	28.8	19.7	19.7	21.2
52.5°	2807.1	1920.4	110.6	90.9	84.9	56.1	30.3	16.7	12.1	12.1	13.6
55°	3042.1	1955.3	103.1	84.9	72.8	39.4	16.7	10.6	7.6	7.6	7.6
57.5°	3284.6	1970.4	94.0	77.3	57.6	24.3	9.1	6.1	4.5	4.5	4.5
60°	3499.8	1941.6	80.3	63.7	37.9	12.1	4.5	4.5	3.0	1.5	1.5
62.5°	3680.2	1887.1	56.1	45.5	22.7	6.1	3.0	1.5	0.0	0.0	0.0
65°	3790.8	1799.2	36.4	30.3	13.6	4.5	1.5	0.0	0.0	0.0	0.0
67.5°	3759.0	1634.0	22.7	19.7	6.1	3.0	1.5	0.0	0.0	0.0	0.0
70°	3392.2	1339.9	16.7	12.1	4.5	1.5	0.0	0.0	0.0	0.0	0.0
72.5°	2444.9	906.4	12.1	7.6	3.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	1176.2	322.9	7.6	6.1	1.5	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	288.0	71.2	4.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	63.7	13.6	3.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	21.2	6.1	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	7.6	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.5	1.5	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)