

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: P398001

Luminaire Tested: **ARCH-S-PA1-70-750-U-T4W-HSS**

Issue Date: 5/19/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P398001  
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-PA1-70-750-U-T4W-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 930mA 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: 7093 lumens  
Efficiency: N/A  
Efficacy: 95.9 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): 74  
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

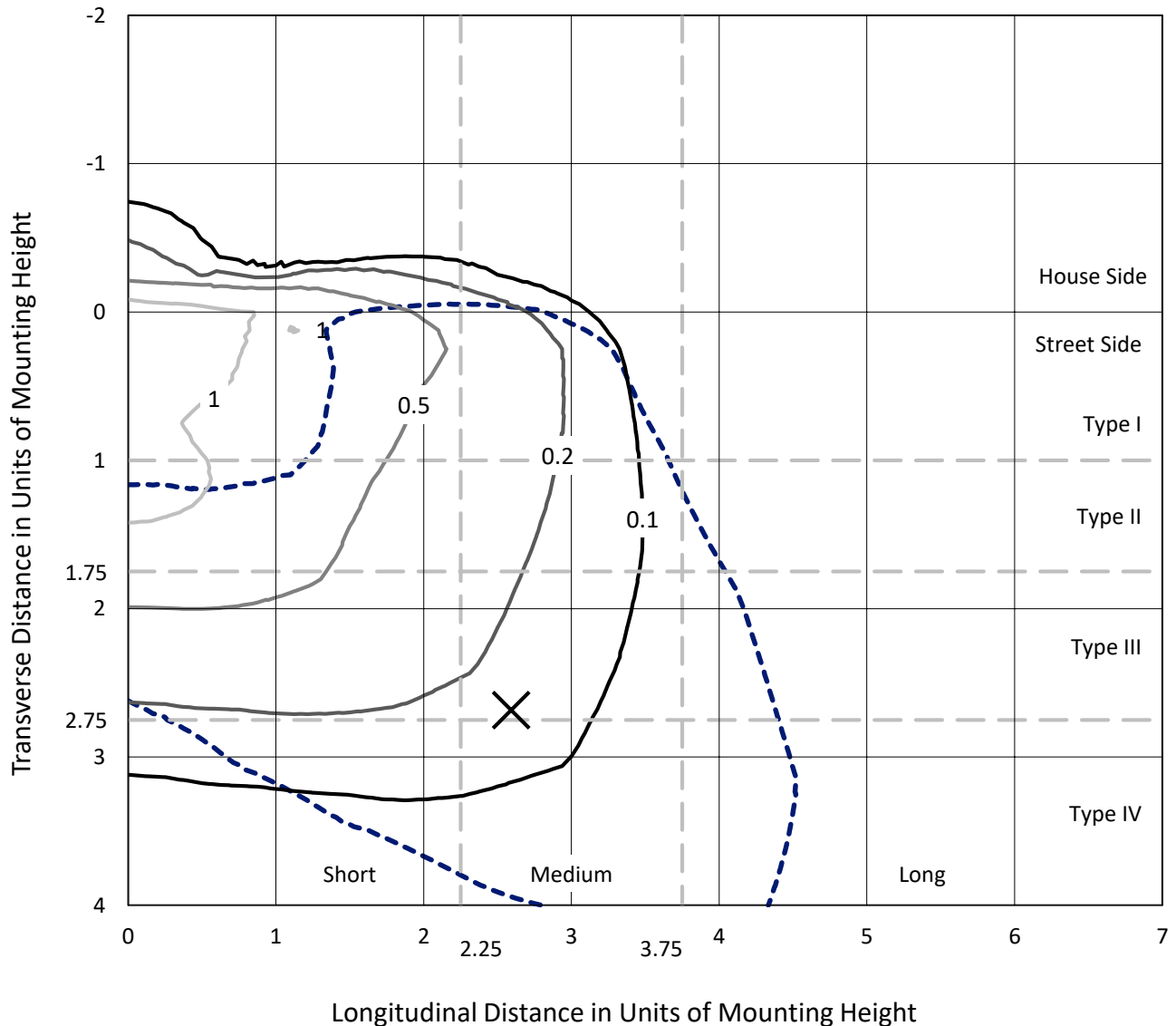


REPORT NUMBER: P398001

CATALOG NUMBER: ARCH-S-PA1-70-750-U-T4W-HSS

### Iso-Footcandle Lines of Horizontal Illumination

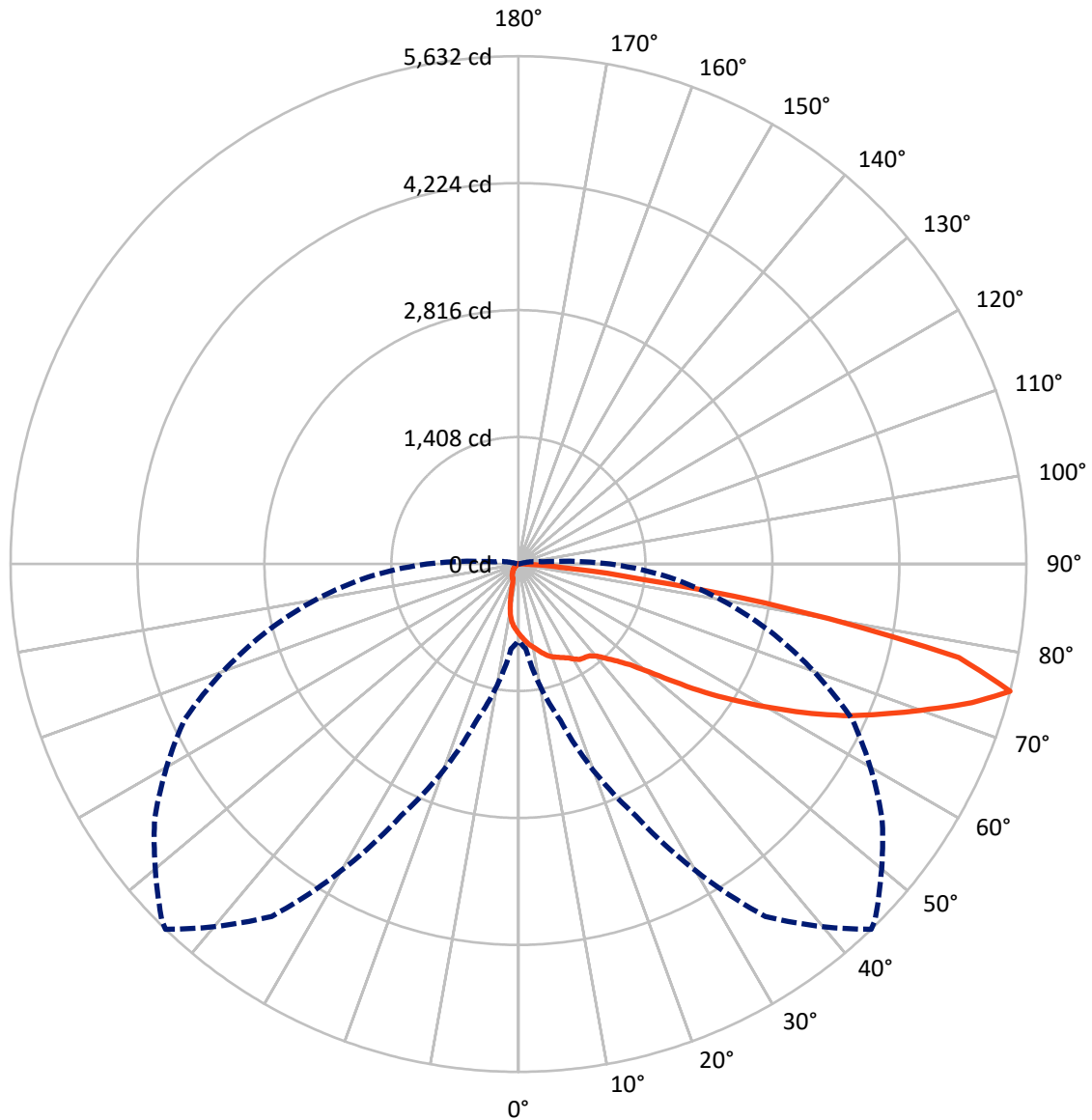
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.7 fc  
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P398001  
CATALOG NUMBER: ARCH-S-PA1-70-750-U-T4W-HSS

### Luminous Intensity Polar Plot



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



REPORT NUMBER: P398001

CATALOG NUMBER: ARCH-S-PA1-70-750-U-T4W-HSS

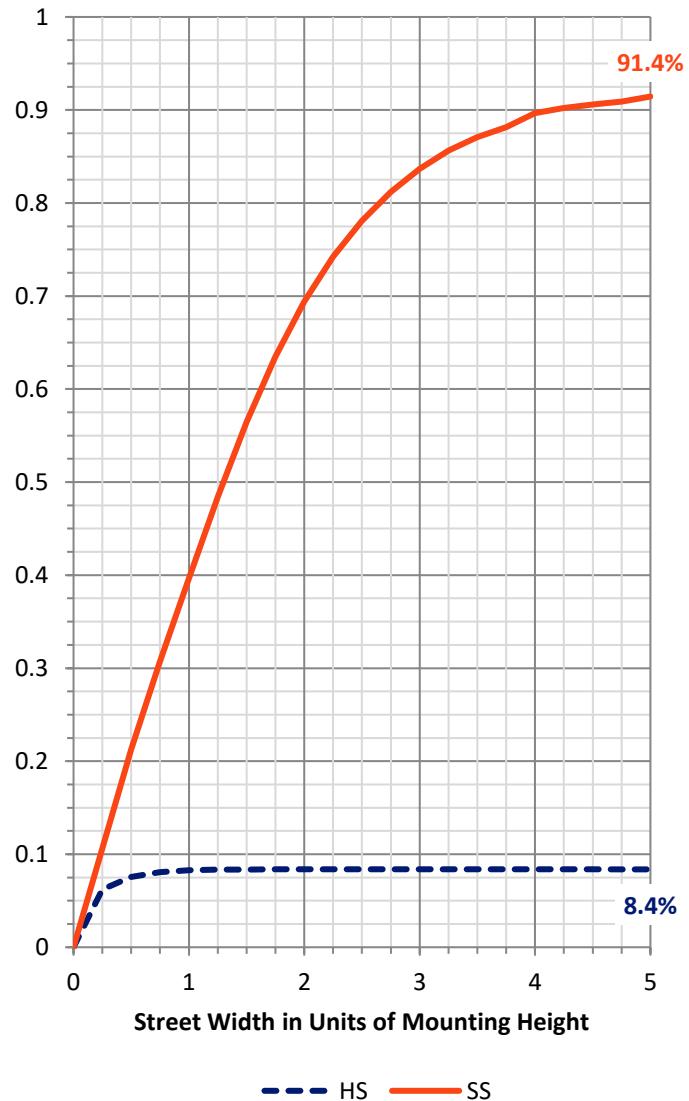
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	598.2	0.0	598.2
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	6494.8	0.0	6494.8
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	7093.0	0.0	7093.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.8	1.0
10°-20°	204.0	2.9
20°-30°	336.7	4.7
30°-40°	488.7	6.9
40°-50°	794.4	11.2
50°-60°	1400.4	19.7
60°-70°	2012.6	28.4
70°-80°	1611.7	22.7
80°-90°	171.7	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°	7093.0	100.0
0°-180°	7093.0	100.0



REPORT NUMBER: P398001

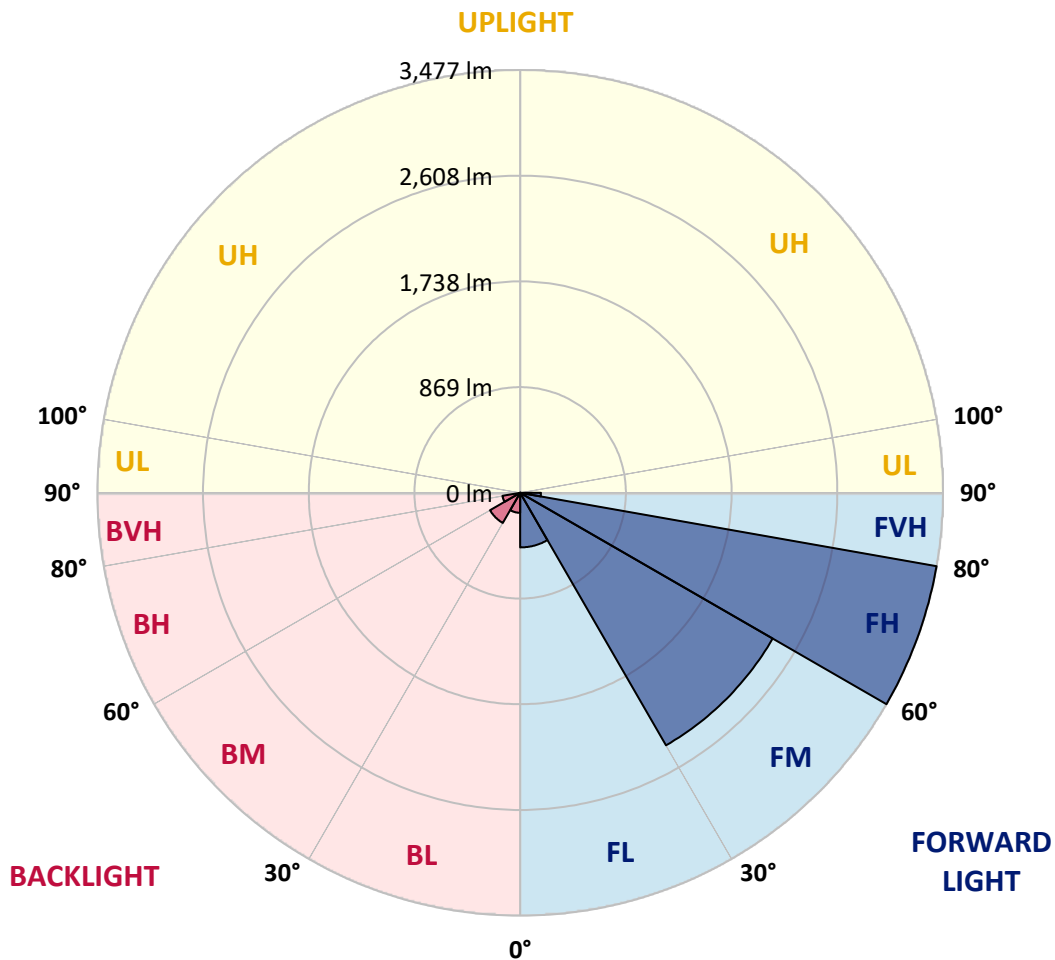
CATALOG NUMBER: ARCH-S-PA1-70-750-U-T4W-HSS

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	449.2	6.3			
FM	(30°-60°)	2397.5	33.8			
FH	(60°-80°)	3476.9	49.0			G2/5000
FVH	(80°-90°)	171.3	2.4			G2/225
BL	(0°-30°)	164.3	2.3	B1/500		
BM	(30°-60°)	285.9	4.0	B1/1000		
BH	(60°-80°)	147.5	2.1	B1/500		G1/500
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 IV Medium





REPORT NUMBER: P398001

CATALOG NUMBER: ARCH-S-PA1-70-750-U-T4W-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	772.0	772.0	772.0	772.0	772.0	772.0	772.0	772.0	772.0	772.0	772.0
2.5°	841.4	840.1	836.2	829.6	823.1	816.5	815.2	804.8	793.0	783.8	776.0
5°	916.0	914.7	908.1	893.7	879.3	862.3	861.0	836.2	813.9	789.1	768.1
7.5°	993.2	990.6	978.8	956.6	931.7	905.5	902.9	866.3	833.5	800.8	770.7
10°	1053.4	1050.8	1033.8	1007.6	973.6	940.8	936.9	899.0	866.3	824.4	783.8
12.5°	1112.3	1107.0	1084.8	1056.0	1014.1	982.7	978.8	939.5	900.3	857.1	807.4
15°	1167.2	1160.7	1139.7	1103.1	1058.6	1028.5	1025.9	984.0	943.5	893.7	838.8
17.5°	1205.2	1202.6	1177.7	1137.1	1094.0	1069.1	1066.5	1023.3	982.7	930.4	871.5
20°	1224.8	1224.8	1201.3	1156.8	1117.5	1100.5	1096.6	1056.0	1016.7	967.0	905.5
22.5°	1228.7	1232.7	1214.3	1165.9	1137.1	1122.7	1120.1	1084.8	1046.8	1001.0	943.5
25°	1236.6	1236.6	1227.4	1175.1	1154.1	1150.2	1148.9	1117.5	1083.5	1037.7	981.4
27.5°	1245.7	1245.7	1239.2	1188.2	1180.3	1179.0	1177.7	1163.3	1135.8	1082.2	1025.9
30°	1269.3	1270.6	1265.4	1214.3	1209.1	1223.5	1226.1	1218.3	1184.2	1117.5	1071.7
32.5°	1328.2	1316.4	1302.0	1232.7	1241.8	1260.1	1261.4	1245.7	1209.1	1155.5	1126.7
35°	1476.0	1406.7	1341.3	1248.4	1252.3	1270.6	1273.2	1271.9	1249.7	1203.9	1189.5
37.5°	1613.4	1515.3	1422.4	1285.0	1271.9	1291.5	1296.8	1319.0	1302.0	1270.6	1274.5
40°	1693.3	1655.3	1589.9	1385.8	1311.2	1341.3	1346.5	1380.5	1374.0	1360.9	1385.8
42.5°	1939.3	1941.9	1871.2	1536.2	1383.1	1431.6	1438.1	1465.6	1474.7	1481.3	1541.5
45°	2224.5	2233.7	2216.7	1807.1	1519.2	1534.9	1544.1	1580.7	1614.8	1656.6	1766.5
47.5°	2567.4	2559.5	2496.7	2138.2	1756.1	1668.4	1674.9	1745.6	1804.5	1896.1	2053.1
50°	2871.0	2890.6	2771.5	2447.0	2089.8	1879.1	1872.5	1941.9	2047.9	2176.1	2373.7
52.5°	3177.2	3148.4	2987.4	2753.2	2484.9	2165.7	2146.0	2184.0	2333.1	2484.9	2687.8
55°	3258.3	3260.9	3206.0	3088.2	2814.7	2513.7	2481.0	2478.4	2664.2	2767.6	3017.5
57.5°	3417.9	3424.5	3437.6	3461.1	3331.6	2861.8	2827.8	2791.1	2971.7	3031.9	3348.6
60°	3580.2	3588.1	3667.9	3794.8	3708.4	3237.4	3200.7	3114.4	3215.1	3296.2	3696.7
62.5°	3559.3	3614.2	3845.8	4098.4	4087.9	3649.6	3603.8	3395.7	3459.8	3530.5	4015.9
65°	3213.8	3272.7	3793.5	4182.1	4468.7	4056.5	3981.9	3686.2	3690.1	3775.2	4323.5
67.5°	2905.0	2969.1	3466.4	4146.8	4719.9	4421.6	4344.4	3978.0	3916.5	4057.8	4488.3
70°	2727.0	2791.1	3206.0	4036.9	4790.6	4825.9	4759.2	4311.7	4186.1	4315.6	4303.8
72.5°	2134.2	2235.0	2873.6	3827.5	4866.5	5259.1	5206.7	4734.3	4415.1	4046.0	3276.6
75°	850.6	943.5	1794.0	3080.3	4771.0	5632.0	5591.4	4924.1	4086.6	2889.3	1677.6
77.5°	256.5	274.8	498.6	1523.2	3497.8	4993.4	4980.4	4140.3	2891.9	1341.3	458.0
80°	85.1	94.2	153.1	420.0	1596.4	3119.6	3178.5	2638.0	1313.8	307.5	92.9
82.5°	35.3	39.3	77.2	168.8	565.3	1343.9	1324.3	1181.6	458.0	191.0	34.0
85°	9.2	11.8	35.3	96.8	206.8	463.2	486.8	396.5	259.1	158.3	10.5
87.5°	0.0	0.0	17.0	39.3	92.9	140.0	146.6	120.4	146.6	119.1	5.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P398001

CATALOG NUMBER: ARCH-S-PA1-70-750-U-T4W-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	772.0	772.0	772.0	772.0	772.0	772.0	772.0	772.0	772.0	772.0	772.0
2.5°	769.4	762.9	751.1	743.3	732.8	730.2	724.9	718.4	717.1	710.5	711.9
5°	756.3	745.9	724.9	710.5	693.5	688.3	679.1	672.6	667.4	658.2	659.5
7.5°	753.7	738.0	709.2	681.8	654.3	634.6	607.2	584.9	566.6	547.0	550.9
10°	762.9	743.3	702.7	664.7	615.0	552.2	480.2	433.1	409.6	386.0	388.6
12.5°	781.2	757.7	705.3	647.7	547.0	439.7	340.2	276.1	259.1	248.6	249.9
15°	808.7	779.9	713.2	615.0	455.4	318.0	226.4	198.9	205.4	209.4	209.4
17.5°	837.5	804.8	719.7	556.1	352.0	222.5	184.5	181.9	191.0	200.2	200.2
20°	872.8	830.9	721.0	481.5	253.9	180.6	174.0	174.0	180.6	191.0	191.0
22.5°	906.8	859.7	709.2	396.5	193.7	167.5	167.5	167.5	171.4	181.9	183.2
25°	947.4	895.1	684.4	306.2	166.2	159.6	159.6	161.0	163.6	172.7	174.0
27.5°	990.6	931.7	642.5	223.8	151.8	150.5	151.8	153.1	154.4	163.6	166.2
30°	1040.3	972.3	588.8	167.5	138.7	138.7	142.6	145.2	145.2	153.1	155.7
32.5°	1097.9	1025.9	524.7	138.7	125.6	124.3	130.9	134.8	134.8	141.3	143.9
35°	1169.8	1080.9	447.5	123.0	115.2	112.5	115.2	121.7	124.3	129.5	130.9
37.5°	1265.4	1146.3	365.1	113.8	107.3	102.1	102.1	103.4	108.6	113.8	115.2
40°	1387.1	1218.3	284.0	107.3	99.5	94.2	90.3	89.0	87.7	91.6	94.2
42.5°	1540.2	1299.4	212.0	100.8	92.9	85.1	79.8	74.6	68.0	66.7	68.0
45°	1736.4	1398.8	157.0	95.5	89.0	77.2	68.0	58.9	47.1	43.2	44.5
47.5°	1968.1	1502.2	123.0	90.3	86.4	68.0	56.3	40.6	28.8	26.2	27.5
50°	2214.1	1601.7	104.7	83.7	81.1	58.9	40.6	24.9	17.0	17.0	18.3
52.5°	2423.4	1657.9	95.5	78.5	73.3	48.4	26.2	14.4	10.5	10.5	11.8
55°	2626.3	1688.0	89.0	73.3	62.8	34.0	14.4	9.2	6.5	6.5	6.5
57.5°	2835.6	1701.1	81.1	66.7	49.7	20.9	7.9	5.2	3.9	3.9	3.9
60°	3021.4	1676.3	69.4	55.0	32.7	10.5	3.9	3.9	2.6	1.3	1.3
62.5°	3177.2	1629.1	48.4	39.3	19.6	5.2	2.6	1.3	0.0	0.0	0.0
65°	3272.7	1553.3	31.4	26.2	11.8	3.9	1.3	0.0	0.0	0.0	0.0
67.5°	3245.2	1410.6	19.6	17.0	5.2	2.6	1.3	0.0	0.0	0.0	0.0
70°	2928.5	1156.8	14.4	10.5	3.9	1.3	0.0	0.0	0.0	0.0	0.0
72.5°	2110.7	782.5	10.5	6.5	2.6	0.0	0.0	0.0	0.0	0.0	0.0
75°	1015.4	278.7	6.5	5.2	1.3	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	248.6	61.5	3.9	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	55.0	11.8	2.6	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	18.3	5.2	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	6.5	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.9	1.3	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)