

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: P398163

Luminaire Tested: **ARCH-S-PA1-90-827-U-T4W-HSS**

Issue Date: 5/19/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P398163  
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-PA1-90-827-U-T4W-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 2700K, 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: 6040 lumens  
Efficiency: N/A  
Efficacy: 64.3 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

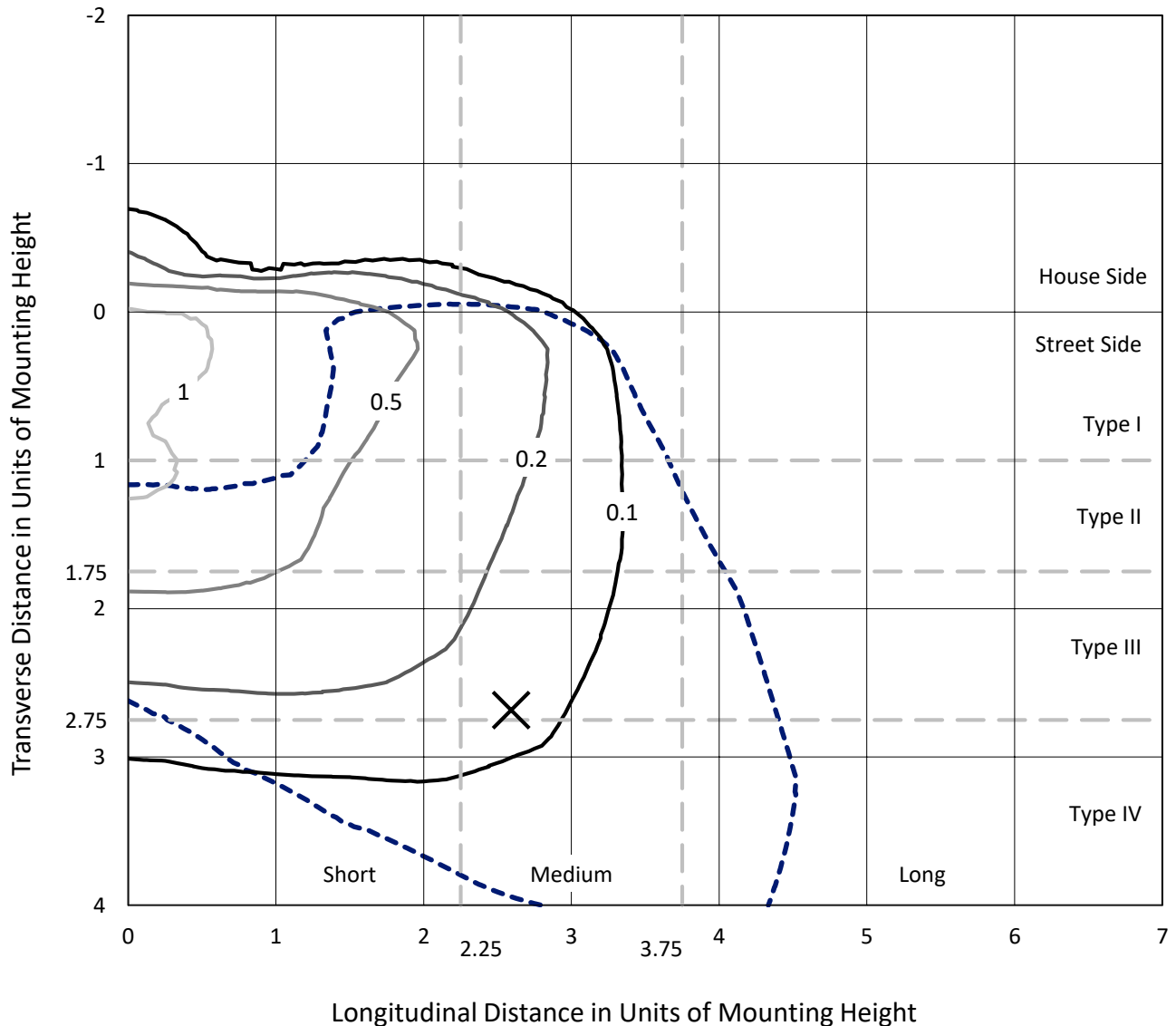
Input Watts (W): 94  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

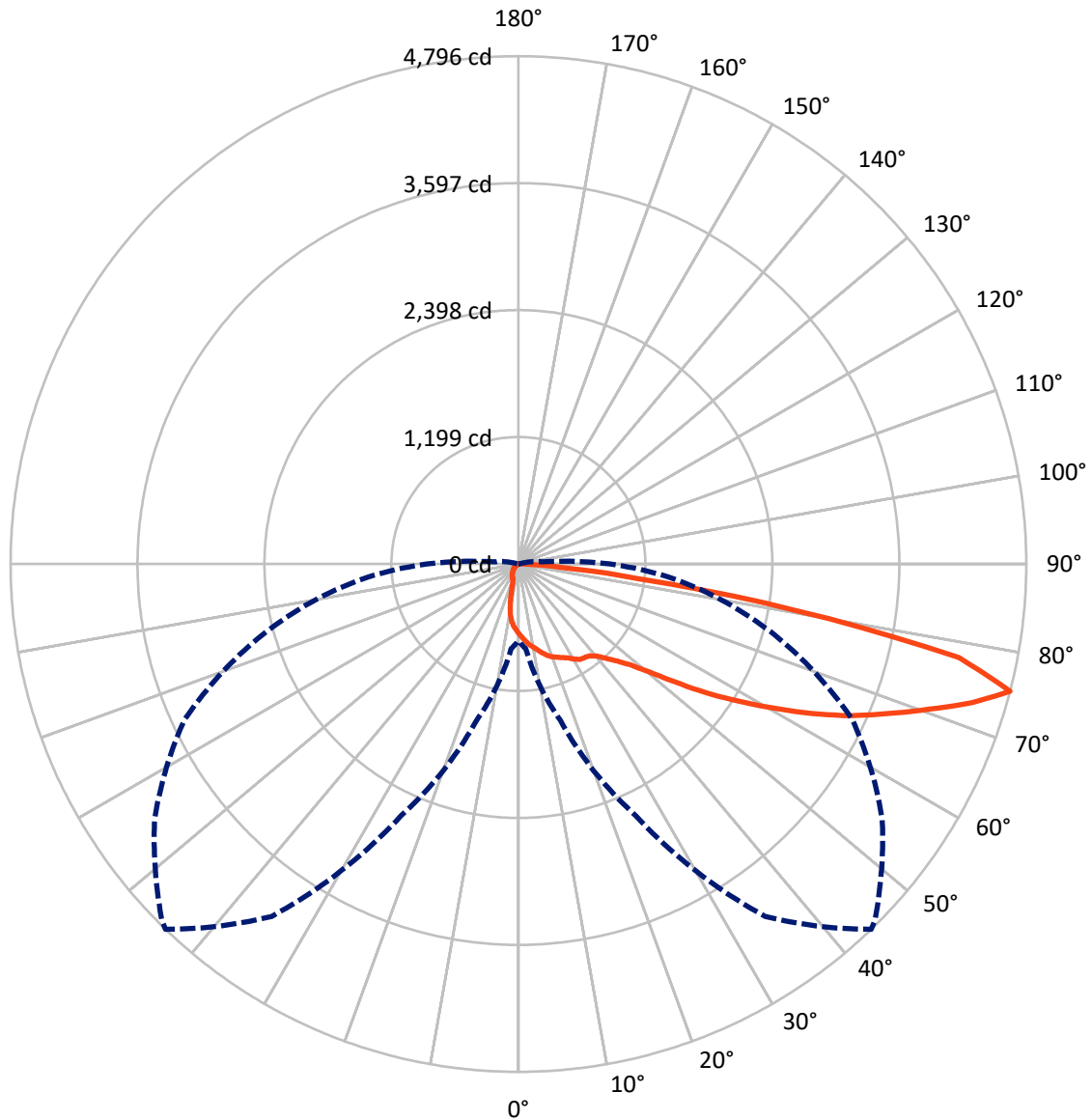
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.4 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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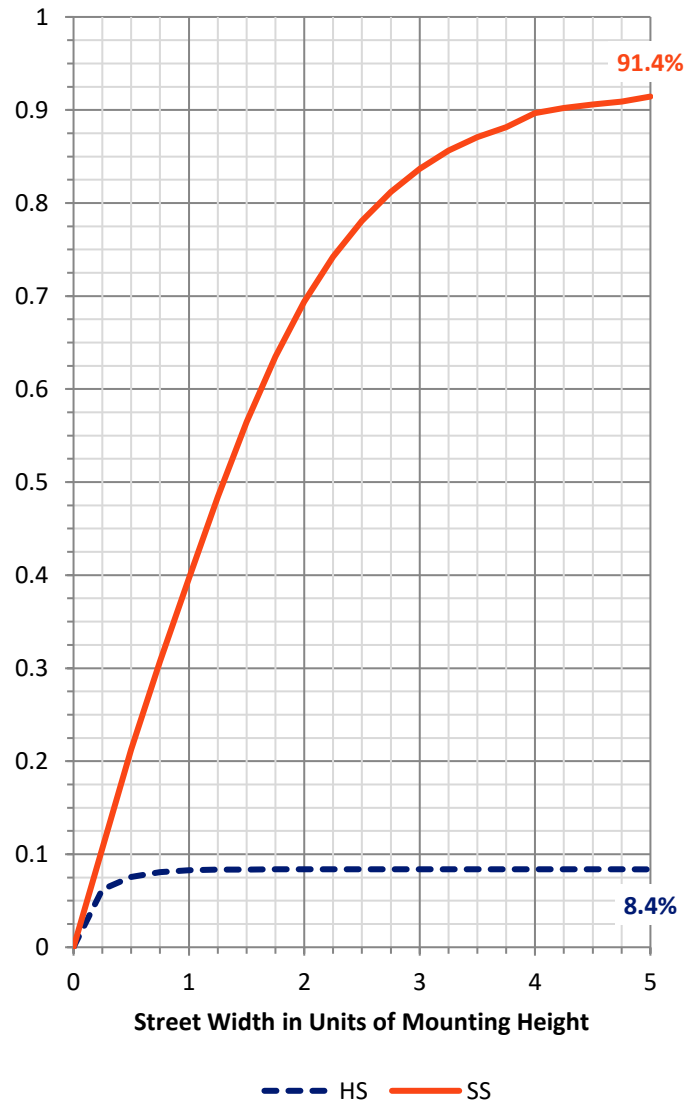
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	509.4	0.0	509.4
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	5530.6	0.0	5530.6
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	6040.0	0.0	6040.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.0	1.0
10°-20°	173.7	2.9
20°-30°	286.7	4.7
30°-40°	416.1	6.9
40°-50°	676.4	11.2
50°-60°	1192.5	19.7
60°-70°	1713.9	28.4
70°-80°	1372.4	22.7
80°-90°	146.2	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°	6040.0	100.0
0°-180°	6040.0	100.0



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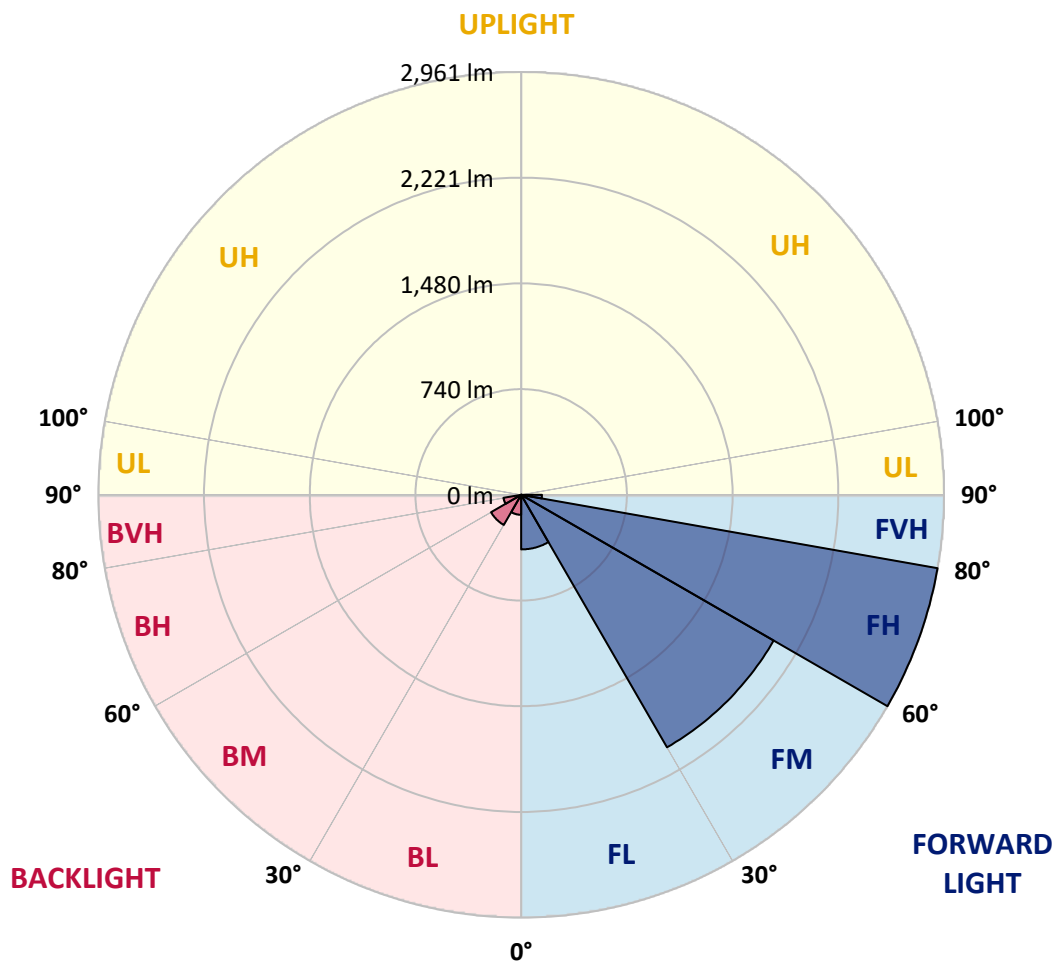
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	382.5	6.3			
FM	(30°-60°)	2041.6	33.8			
FH	(60°-80°)	2960.7	49.0			G2/5000
FVH	(80°-90°)	145.9	2.4			G2/225
BL	(0°-30°)	139.9	2.3	B1/500		
BM	(30°-60°)	243.5	4.0	B1/1000		
BH	(60°-80°)	125.6	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	657.4	657.4	657.4	657.4	657.4	657.4	657.4	657.4	657.4	657.4	657.4
2.5°	716.5	715.4	712.0	706.5	700.9	695.3	694.2	685.3	675.3	667.5	660.8
5°	780.0	778.9	773.3	761.1	748.8	734.3	733.2	712.0	693.1	671.9	654.1
7.5°	845.7	843.5	833.5	814.5	793.4	771.1	768.9	737.7	709.8	681.9	656.3
10°	897.0	894.8	880.3	858.0	829.0	801.2	797.8	765.5	737.7	702.0	667.5
12.5°	947.1	942.7	923.7	899.2	863.6	836.8	833.5	800.1	766.6	729.9	687.5
15°	993.9	988.4	970.5	939.3	901.5	875.8	873.6	837.9	803.4	761.1	714.3
17.5°	1026.3	1024.0	1002.9	968.3	931.5	910.4	908.1	871.4	836.8	792.3	742.1
20°	1043.0	1043.0	1022.9	985.0	951.6	937.1	933.8	899.2	865.8	823.5	771.1
22.5°	1046.3	1049.7	1034.1	992.8	968.3	956.1	953.8	923.7	891.4	852.4	803.4
25°	1053.0	1053.0	1045.2	1000.6	982.8	979.5	978.3	951.6	922.6	883.6	835.7
27.5°	1060.8	1060.8	1055.2	1011.8	1005.1	1004.0	1002.9	990.6	967.2	921.5	873.6
30°	1080.9	1082.0	1077.5	1034.1	1029.6	1041.9	1044.1	1037.4	1008.4	951.6	912.6
32.5°	1131.0	1121.0	1108.7	1049.7	1057.5	1073.1	1074.2	1060.8	1029.6	983.9	959.4
35°	1256.9	1197.9	1142.1	1063.0	1066.4	1082.0	1084.2	1083.1	1064.1	1025.1	1012.9
37.5°	1373.9	1290.3	1211.2	1094.2	1083.1	1099.8	1104.3	1123.2	1108.7	1082.0	1085.3
40°	1441.9	1409.6	1353.9	1180.0	1116.5	1142.1	1146.6	1175.6	1170.0	1158.9	1180.0
42.5°	1651.4	1653.6	1593.4	1308.2	1177.8	1219.0	1224.6	1248.0	1255.8	1261.4	1312.6
45°	1894.3	1902.1	1887.6	1538.8	1293.7	1307.1	1314.9	1346.1	1375.0	1410.7	1504.3
47.5°	2186.2	2179.6	2126.1	1820.7	1495.4	1420.7	1426.3	1486.5	1536.6	1614.6	1748.3
50°	2444.8	2461.5	2360.1	2083.7	1779.5	1600.1	1594.5	1653.6	1743.9	1853.1	2021.3
52.5°	2705.5	2681.0	2543.9	2344.5	2116.0	1844.1	1827.4	1859.8	1986.8	2116.0	2288.8
55°	2774.6	2776.8	2730.0	2629.7	2396.8	2140.6	2112.7	2110.5	2268.7	2356.7	2569.6
57.5°	2910.5	2916.1	2927.2	2947.3	2837.0	2437.0	2408.0	2376.8	2530.6	2581.8	2851.5
60°	3048.7	3055.4	3123.4	3231.4	3157.9	2756.8	2725.6	2652.0	2737.8	2806.9	3147.9
62.5°	3030.9	3077.7	3274.9	3490.0	3481.0	3107.8	3068.8	2891.6	2946.2	3006.4	3419.8
65°	2736.7	2786.8	3230.3	3561.3	3805.3	3454.3	3390.8	3139.0	3142.3	3214.7	3681.6
67.5°	2473.7	2528.3	2951.8	3531.2	4019.2	3765.2	3699.4	3387.4	3335.1	3455.4	3822.0
70°	2322.2	2376.8	2730.0	3437.6	4079.4	4109.5	4052.7	3671.6	3564.6	3674.9	3664.9
72.5°	1817.4	1903.2	2447.0	3259.3	4144.0	4478.3	4433.8	4031.5	3759.6	3445.4	2790.2
75°	724.3	803.4	1527.7	2623.0	4062.7	4795.9	4761.4	4193.1	3479.9	2460.4	1428.5
77.5°	218.4	234.0	424.5	1297.0	2978.5	4252.1	4241.0	3525.6	2462.6	1142.1	390.0
80°	72.4	80.2	130.4	357.7	1359.4	2656.5	2706.6	2246.4	1118.7	261.9	79.1
82.5°	30.1	33.4	65.7	143.7	481.4	1144.4	1127.7	1006.2	390.0	162.7	29.0
85°	7.8	10.0	30.1	82.5	176.1	394.5	414.5	337.6	220.6	134.8	8.9
87.5°	0.0	0.0	14.5	33.4	79.1	119.2	124.8	102.5	124.8	101.4	4.5
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°	657.4	657.4	657.4	657.4	657.4	657.4	657.4	657.4	657.4	657.4	657.4
2.5°	655.2	649.6	639.6	632.9	624.0	621.8	617.3	611.7	610.6	605.1	606.2
5°	644.1	635.1	617.3	605.1	590.6	586.1	578.3	572.7	568.3	560.5	561.6
7.5°	641.8	628.5	603.9	580.5	557.1	540.4	517.0	498.1	482.5	465.8	469.1
10°	649.6	632.9	598.4	566.1	523.7	470.2	408.9	368.8	348.8	328.7	330.9
12.5°	665.2	645.2	600.6	551.6	465.8	374.4	289.7	235.1	220.6	211.7	212.8
15°	688.6	664.1	607.3	523.7	387.8	270.8	192.8	169.4	174.9	178.3	178.3
17.5°	713.1	685.3	612.9	473.6	299.7	189.4	157.1	154.9	162.7	170.5	170.5
20°	743.2	707.6	614.0	410.1	216.2	153.8	148.2	148.2	153.8	162.7	162.7
22.5°	772.2	732.1	603.9	337.6	164.9	142.6	142.6	142.6	146.0	154.9	156.0
25°	806.7	762.2	582.8	260.7	141.5	135.9	135.9	137.1	139.3	147.1	148.2
27.5°	843.5	793.4	547.1	190.5	129.3	128.1	129.3	130.4	131.5	139.3	141.5
30°	885.9	827.9	501.4	142.6	118.1	118.1	121.5	123.7	123.7	130.4	132.6
32.5°	934.9	873.6	446.8	118.1	107.0	105.9	111.4	114.8	114.8	120.3	122.6
35°	996.2	920.4	381.1	104.7	98.1	95.8	98.1	103.6	105.9	110.3	111.4
37.5°	1077.5	976.1	310.9	96.9	91.4	86.9	86.9	88.0	92.5	96.9	98.1
40°	1181.1	1037.4	241.8	91.4	84.7	80.2	76.9	75.8	74.7	78.0	80.2
42.5°	1311.5	1106.5	180.5	85.8	79.1	72.4	68.0	63.5	57.9	56.8	57.9
45°	1478.7	1191.2	133.7	81.3	75.8	65.7	57.9	50.1	40.1	36.8	37.9
47.5°	1675.9	1279.2	104.7	76.9	73.5	57.9	47.9	34.5	24.5	22.3	23.4
50°	1885.4	1363.9	89.1	71.3	69.1	50.1	34.5	21.2	14.5	14.5	15.6
52.5°	2063.7	1411.8	81.3	66.9	62.4	41.2	22.3	12.3	8.9	8.9	10.0
55°	2236.4	1437.4	75.8	62.4	53.5	29.0	12.3	7.8	5.6	5.6	5.6
57.5°	2414.7	1448.6	69.1	56.8	42.3	17.8	6.7	4.5	3.3	3.3	3.3
60°	2572.9	1427.4	59.1	46.8	27.9	8.9	3.3	3.3	2.2	1.1	1.1
62.5°	2705.5	1387.3	41.2	33.4	16.7	4.5	2.2	1.1	0.0	0.0	0.0
65°	2786.8	1322.7	26.7	22.3	10.0	3.3	1.1	0.0	0.0	0.0	0.0
67.5°	2763.4	1201.2	16.7	14.5	4.5	2.2	1.1	0.0	0.0	0.0	0.0
70°	2493.8	985.0	12.3	8.9	3.3	1.1	0.0	0.0	0.0	0.0	0.0
72.5°	1797.3	666.3	8.9	5.6	2.2	0.0	0.0	0.0	0.0	0.0	0.0
75°	864.7	237.3	5.6	4.5	1.1	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	211.7	52.4	3.3	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	46.8	10.0	2.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	15.6	4.5	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.6	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.3	1.1	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)