

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: P214812

Luminaire Tested: **ARCH-AF24-30-D-U-T3-7050-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214812  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29624)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF24-30-D-U-T3-7050-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 375mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2855 lumens  
Efficiency: N/A  
Efficacy: 92.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type III - Medium - Semi-Cutoff  
BUG Rating: B0 - U0 - G1

Input Watts (W): 31  
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

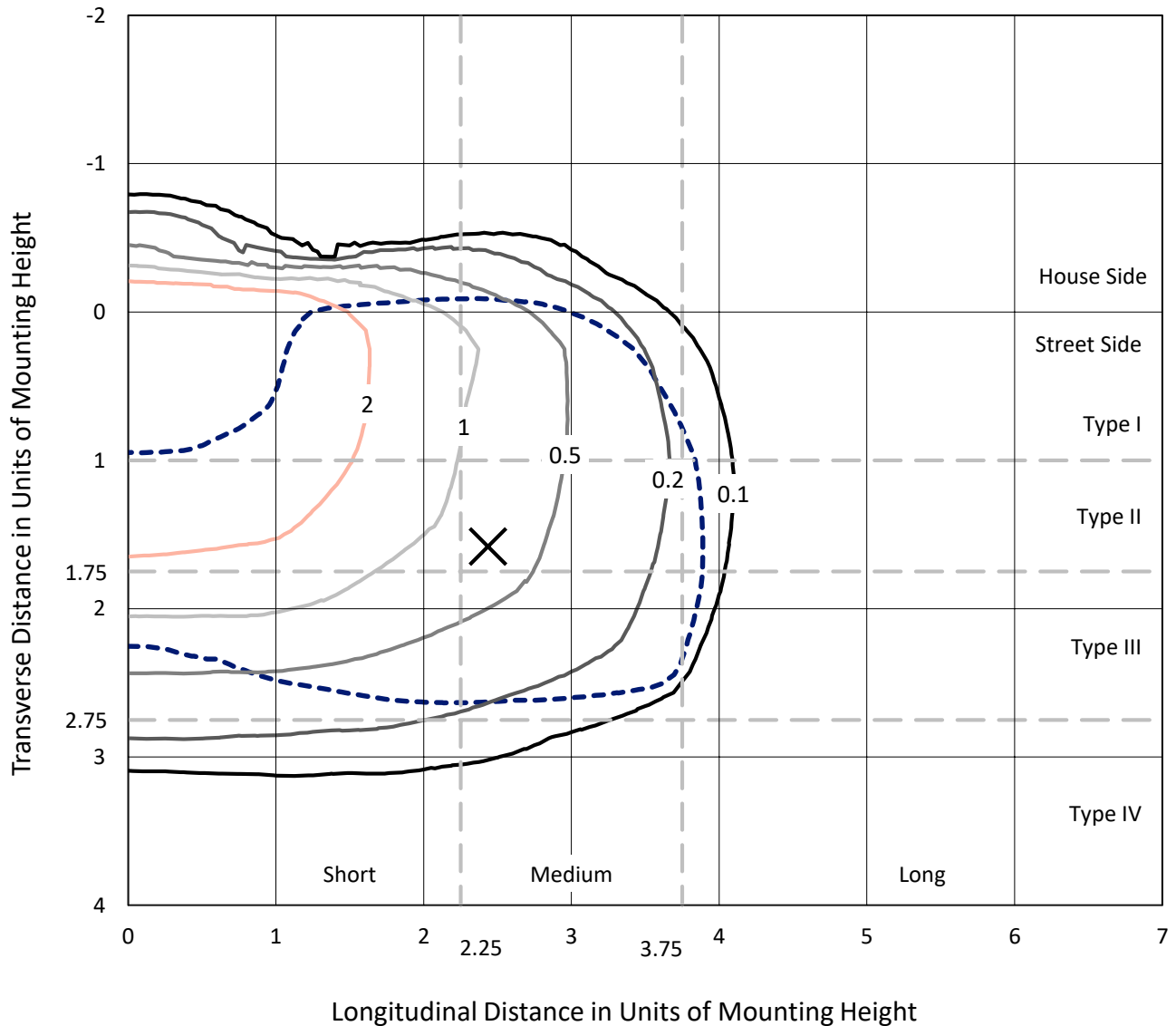


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

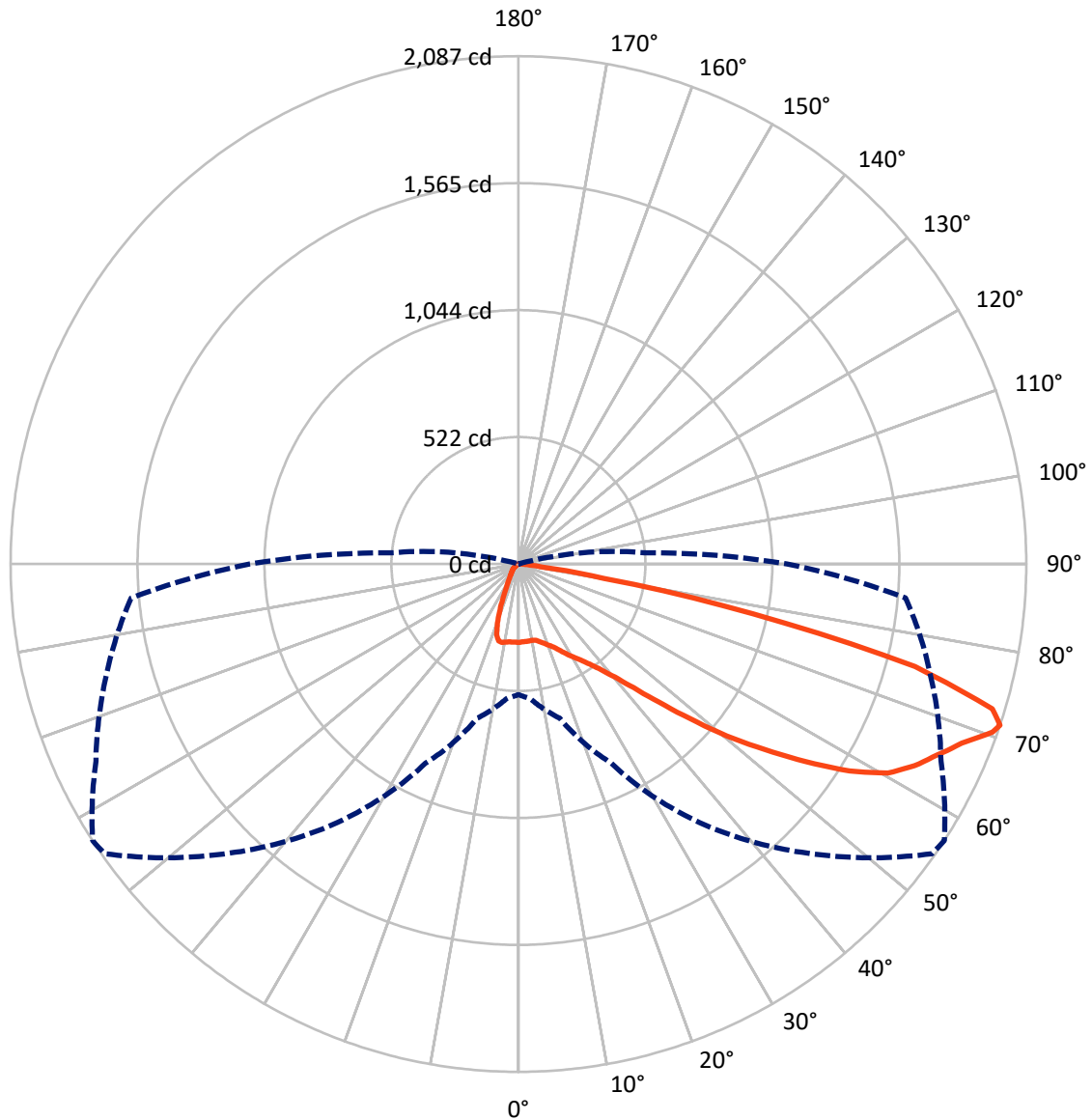


Based on 10 foot mounting height. Maximum calculated value = 4 fc  
 Type III - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral      - - - Horizontal Cone Through 71-Deg Vertical

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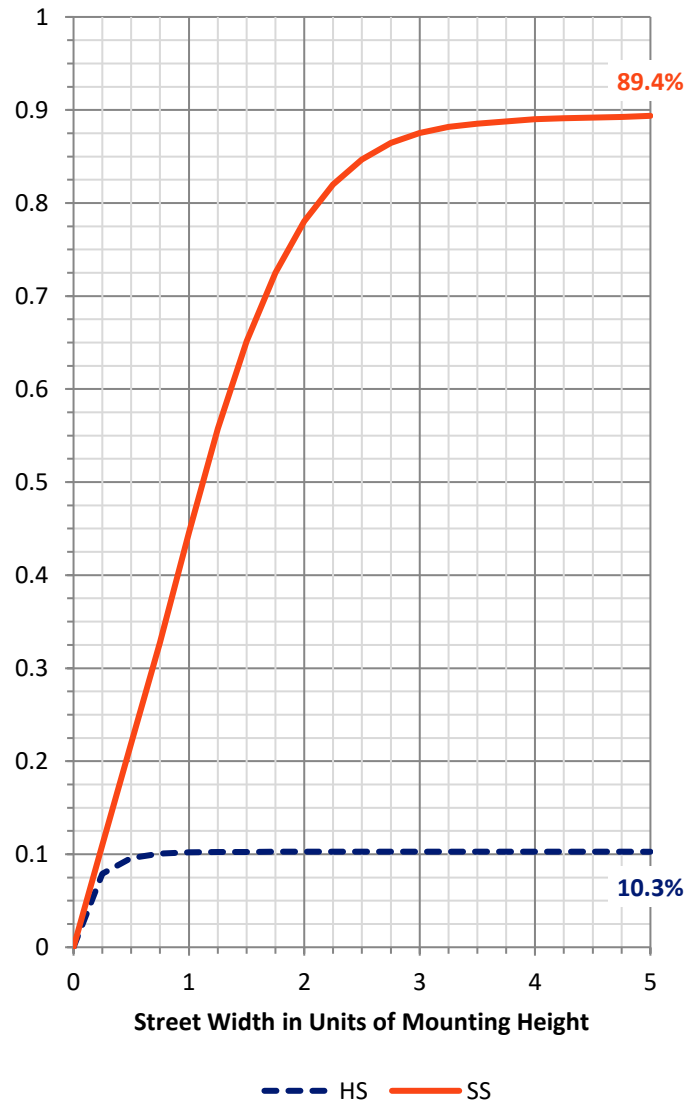
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	295.9	0.0	295.9
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	2559.1	0.0	2559.1
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	2855.0	0.0	2855.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.3	1.1
10°-20°	81.0	2.8
20°-30°	126.4	4.4
30°-40°	213.6	7.5
40°-50°	414.9	14.5
50°-60°	696.8	24.4
60°-70°	831.5	29.1
70°-80°	438.2	15.3
80°-90°	22.3	0.8
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°	2855.0	100.0
0°-180°	2855.0	100.0



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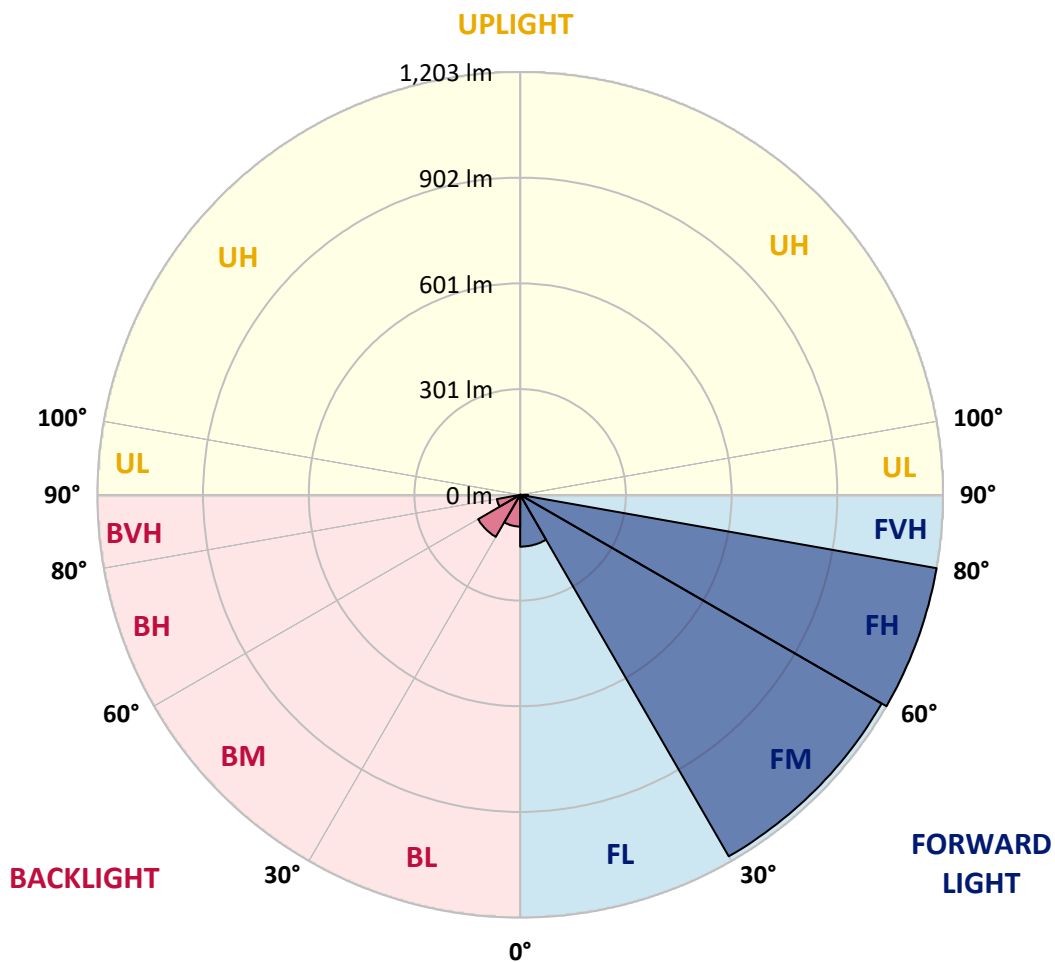
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	147.4	5.2			
FM	(30°-60°)	1187.1	41.6			
FH	(60°-80°)	1202.5	42.1			G1/1800
FVH	(80°-90°)	22.1	0.8			G1/100
BL	(0°-30°)	90.3	3.2	B0/110		
BM	(30°-60°)	138.2	4.8	B0/220		
BH	(60°-80°)	67.2	2.4	B0/110		G0/110
BVH	(80°-90°)	0.2	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-G1**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	322.7	322.7	322.7	322.7	322.7	322.7	322.7	322.7	322.7	322.7	322.7
2.5°	318.0	318.0	318.0	318.7	319.3	319.3	320.7	320.0	320.0	320.0	321.3
5°	309.4	310.0	310.7	312.0	314.7	316.7	320.0	320.0	320.7	322.0	322.7
7.5°	297.4	298.0	300.0	302.7	308.0	312.7	318.0	319.3	321.3	324.7	326.0
10°	290.1	291.4	294.1	297.4	303.4	309.4	316.0	318.0	324.0	330.0	333.3
12.5°	288.1	288.7	291.4	296.7	304.0	311.3	320.0	322.0	330.6	340.0	345.3
15°	291.4	292.1	293.4	299.4	308.0	317.3	328.6	331.3	342.0	352.6	359.2
17.5°	297.4	297.4	298.7	304.0	313.3	324.0	338.6	342.6	354.6	366.6	373.9
20°	301.4	301.4	303.4	308.7	319.3	333.3	350.6	355.9	369.2	382.5	389.2
22.5°	305.4	306.0	308.0	314.0	326.0	345.3	365.2	370.6	385.9	399.8	406.5
25°	316.7	316.0	316.7	322.0	336.0	359.9	385.2	391.8	407.8	423.1	426.4
27.5°	347.9	346.6	338.0	334.6	345.3	375.2	410.5	417.1	435.8	451.1	451.1
30°	419.8	417.1	395.8	368.6	359.9	389.2	434.4	443.7	467.7	481.0	477.0
32.5°	510.9	504.9	477.7	431.1	396.5	407.8	459.7	470.3	501.0	512.3	503.6
35°	610.7	610.1	576.1	516.3	467.0	446.4	492.3	504.9	543.5	553.5	539.5
37.5°	716.5	719.2	696.5	614.0	556.2	509.6	535.5	550.2	597.4	609.4	596.1
40°	834.3	833.6	824.9	727.1	663.3	599.4	598.1	611.4	668.6	687.2	668.6
42.5°	983.3	981.9	950.7	862.9	793.0	716.5	689.2	693.9	757.7	788.4	761.1
45°	1135.0	1125.6	1089.7	1013.9	952.0	861.5	809.6	809.6	864.2	906.1	863.5
47.5°	1219.4	1210.1	1195.5	1153.6	1135.0	1033.8	957.3	948.0	990.6	1033.2	973.3
50°	1330.5	1330.5	1294.0	1278.0	1309.9	1238.7	1120.3	1111.0	1131.6	1165.6	1087.1
52.5°	1418.4	1402.4	1376.5	1390.4	1481.6	1449.0	1283.3	1265.4	1281.3	1290.0	1186.2
55°	1455.0	1439.7	1437.7	1488.9	1629.9	1584.7	1450.3	1434.3	1433.0	1390.4	1272.7
57.5°	1462.3	1449.0	1474.2	1564.1	1774.3	1695.8	1616.6	1604.6	1567.4	1460.9	1361.2
60°	1400.4	1407.1	1468.3	1605.3	1859.4	1792.3	1757.0	1744.4	1658.5	1520.8	1459.6
62.5°	1273.3	1289.3	1403.7	1609.3	1828.2	1831.5	1834.8	1826.2	1729.0	1575.4	1558.7
65°	1123.0	1127.6	1265.4	1554.1	1773.6	1819.5	1892.0	1891.4	1782.9	1636.6	1670.5
67.5°	925.4	933.4	1052.5	1367.8	1664.5	1814.2	1967.2	1965.2	1844.1	1706.4	1737.0
70°	688.6	698.5	795.0	1063.8	1421.0	1747.7	2065.7	2067.0	1908.7	1759.7	1691.1
71°	536.9	554.8	656.0	903.4	1296.6	1680.5	2075.0	2087.0	1916.0	1752.3	1596.7
72.5°	263.4	284.7	411.8	636.0	1067.1	1530.1	2013.8	2037.1	1870.1	1661.2	1365.1
75°	68.5	72.5	123.1	260.1	572.1	1013.9	1623.9	1683.1	1528.8	1264.7	834.3
77.5°	43.2	44.6	57.9	101.1	214.2	385.2	954.0	983.3	873.5	640.7	294.1
80°	30.6	31.3	36.6	65.2	125.1	112.4	343.3	355.9	316.0	169.6	52.6
82.5°	18.6	18.6	26.6	41.9	77.2	61.2	90.5	96.5	85.2	47.2	17.3
85°	10.6	11.3	16.6	28.6	36.6	29.9	33.9	35.9	36.6	31.3	7.3
87.5°	8.6	9.3	14.6	23.9	20.0	14.6	14.6	15.3	16.0	18.6	3.3
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°	322.7	322.7	322.7	322.7	322.7	322.7	322.7	322.7	322.7	322.7	322.7
2.5°	321.3	321.3	322.0	321.3	321.3	321.3	322.0	322.0	322.0	323.3	324.0
5°	322.7	322.7	322.7	322.0	321.3	321.3	322.7	323.3	323.3	325.3	325.3
7.5°	326.0	326.0	324.7	323.3	322.0	320.0	320.7	321.3	320.7	321.3	321.3
10°	333.3	333.3	331.3	328.6	324.7	318.7	310.7	300.7	291.4	288.1	286.7
12.5°	345.3	344.6	340.6	336.0	327.3	306.7	276.8	241.5	212.2	204.2	201.6
15°	358.6	357.3	352.6	344.6	321.3	266.8	204.2	159.0	131.1	124.4	123.1
17.5°	372.6	370.6	363.9	347.9	294.1	198.3	131.7	99.8	84.5	83.2	83.8
20°	387.2	384.5	375.2	341.3	237.5	132.4	85.2	77.2	75.8	75.8	76.5
22.5°	403.8	400.5	387.9	317.3	173.0	87.8	73.2	72.5	71.8	71.2	71.2
25°	423.1	419.1	399.8	274.1	119.1	71.8	69.9	67.9	66.5	65.2	64.5
27.5°	446.4	441.1	409.1	220.9	81.8	67.2	65.9	62.5	59.9	57.2	57.2
30°	469.7	463.0	406.5	166.3	66.5	62.5	59.9	55.9	51.9	49.2	48.6
32.5°	494.3	487.6	389.2	111.8	60.5	57.2	53.9	47.9	43.2	39.9	39.3
35°	530.9	525.6	355.3	73.8	54.6	50.6	45.9	39.9	33.9	30.6	29.9
37.5°	585.4	578.8	313.3	56.5	47.9	41.9	37.9	31.3	25.3	22.0	21.3
40°	658.6	638.7	263.4	49.9	41.9	34.6	29.3	22.6	18.0	16.0	16.0
42.5°	743.8	696.5	209.6	45.2	37.3	28.6	21.3	15.3	12.6	12.0	12.0
45°	834.3	750.4	155.7	41.9	32.6	22.6	15.3	10.6	9.3	8.6	8.6
47.5°	927.4	794.3	108.4	37.9	27.3	17.3	10.6	8.0	6.7	6.0	6.0
50°	1014.5	822.9	76.5	33.9	23.3	12.6	8.0	6.0	4.7	4.7	4.7
52.5°	1075.1	820.3	55.2	29.3	18.0	8.6	5.3	4.0	4.0	4.0	4.0
55°	1128.3	810.3	43.2	25.3	14.0	6.0	4.0	3.3	3.3	2.7	2.7
57.5°	1173.5	794.3	36.6	20.6	10.0	4.7	2.7	2.7	2.0	2.0	2.0
60°	1212.1	774.4	30.6	17.3	6.7	3.3	2.0	1.3	1.3	0.7	1.3
62.5°	1264.7	761.7	26.6	13.3	4.7	2.0	1.3	0.7	0.7	0.0	0.0
65°	1303.3	737.8	22.6	9.3	2.7	1.3	0.7	0.7	0.0	0.0	0.0
67.5°	1304.6	694.5	16.6	5.3	2.0	1.3	0.7	0.0	0.0	0.0	0.0
70°	1199.5	592.1	10.6	2.7	1.3	0.7	0.7	0.0	0.0	0.0	0.0
71°	1103.0	524.2	8.6	2.0	1.3	0.7	0.0	0.0	0.0	0.0	0.0
72.5°	908.8	385.2	6.7	2.0	0.7	0.7	0.0	0.0	0.0	0.0	0.0
75°	501.0	139.7	3.3	1.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	160.3	42.6	2.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	27.3	6.7	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	9.3	2.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.7	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.3	0.7	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)