

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: P265919

Luminaire Tested: **ARCH-AF24-20-D-U-T3-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265919  
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-AF24-20-D-U-T3-7027-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 260mA 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: 1771.6 lumens  
Efficiency: N/A  
Efficacy: 84.4 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): 21  
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

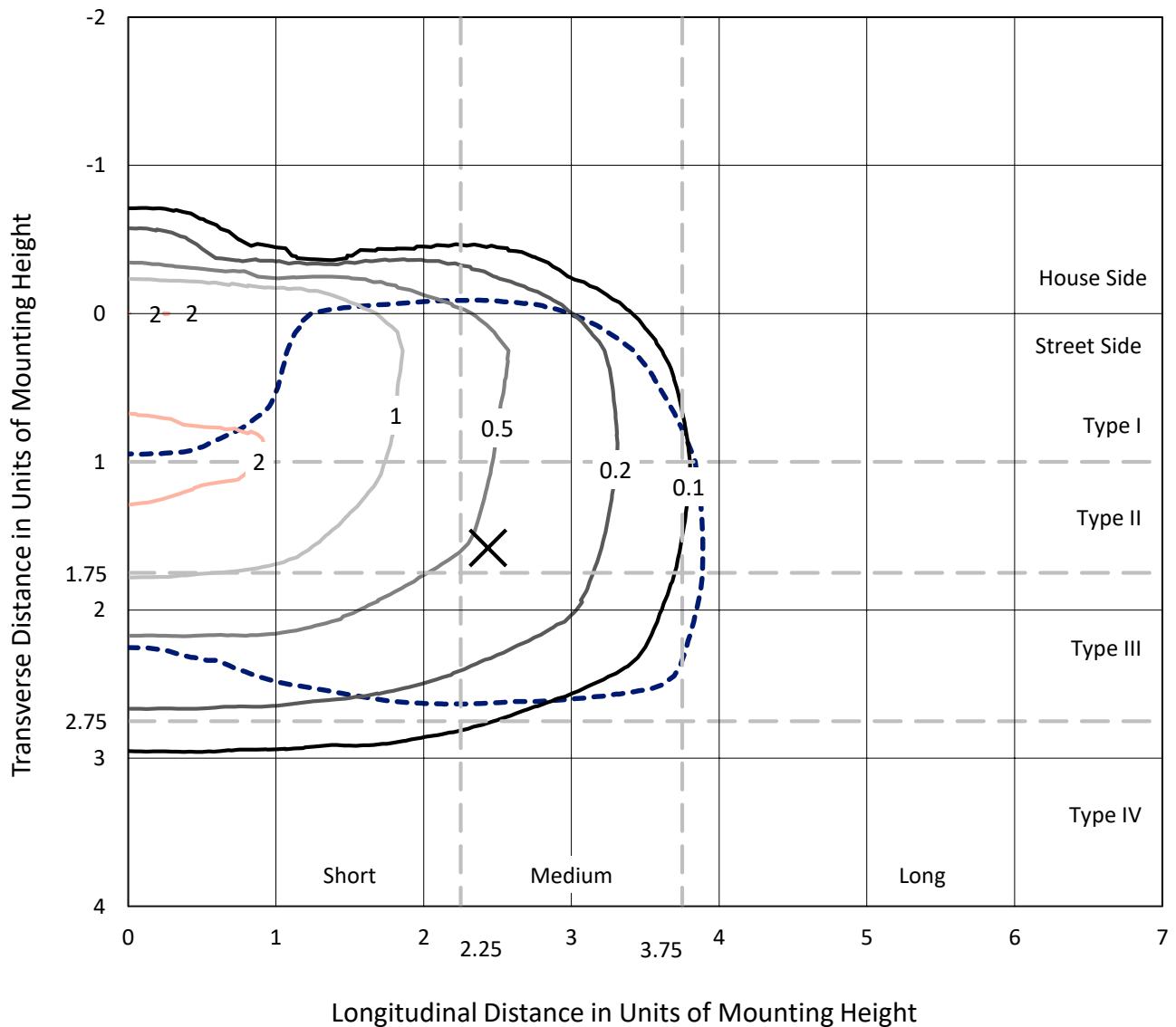


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

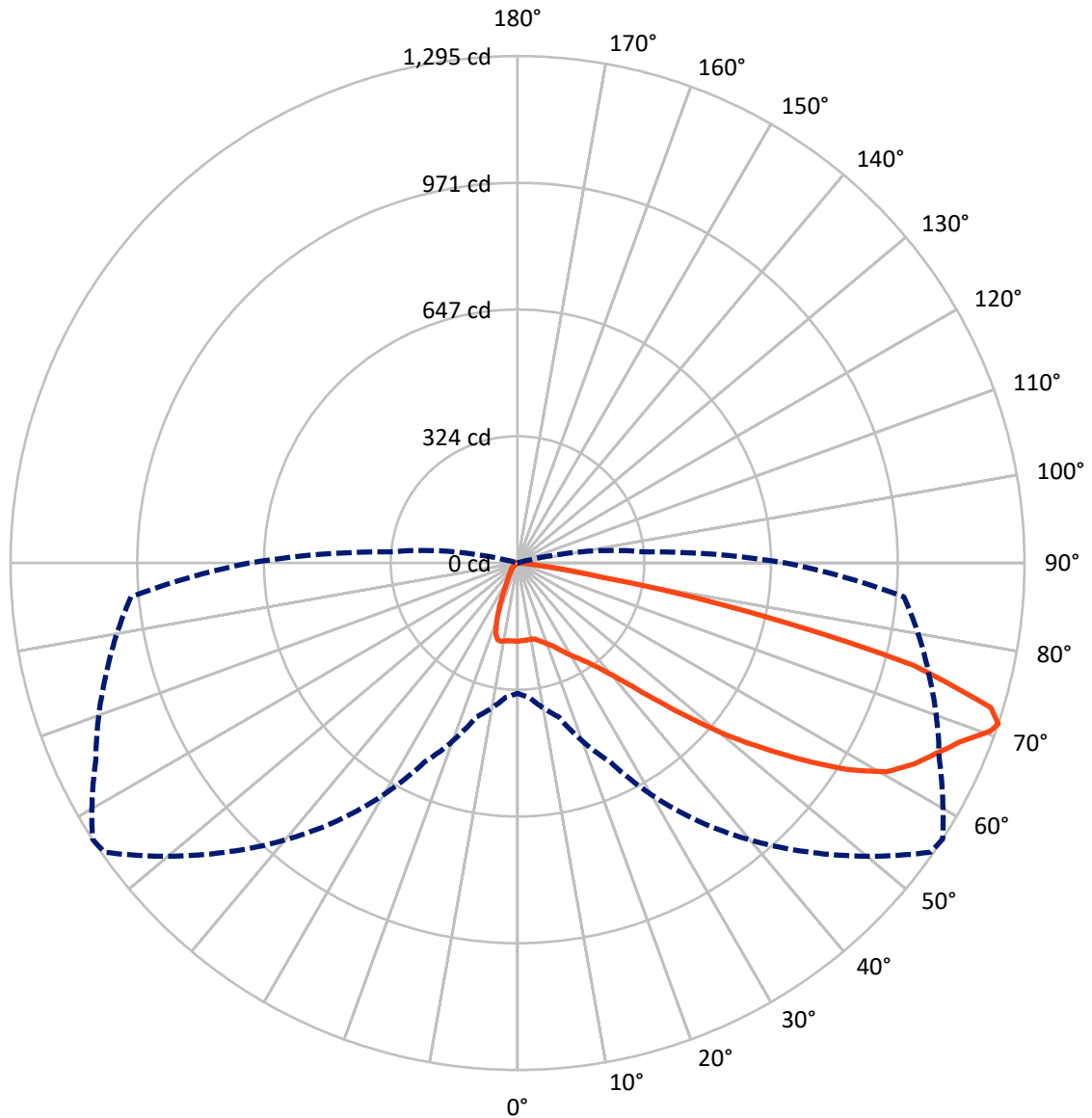


Based on 10 foot mounting height. Maximum calculated value = 2.5 fc  
 Type III - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



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

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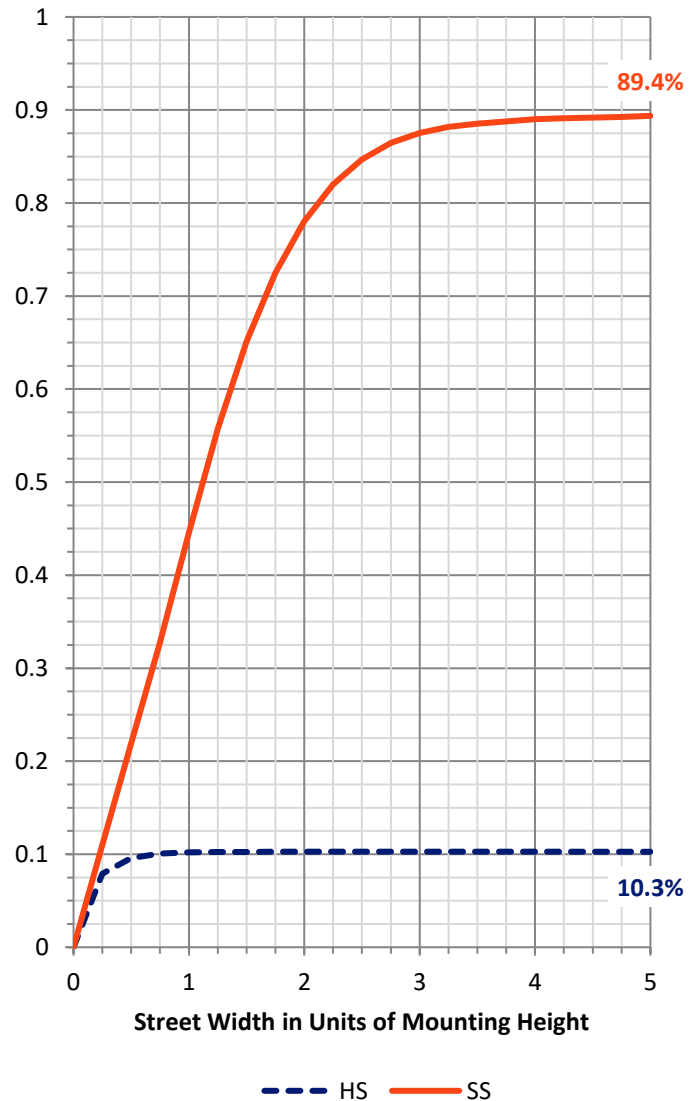
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	183.6	0.0	183.6
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	1588.0	0.0	1588.0
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	1771.6	0.0	1771.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	18.8	1.1
10°-20°	50.3	2.8
20°-30°	78.4	4.4
30°-40°	132.6	7.5
40°-50°	257.5	14.5
50°-60°	432.3	24.4
60°-70°	516.0	29.1
70°-80°	271.9	15.3
80°-90°	13.8	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°	1771.6	100.0
0°-180°	1771.6	100.0



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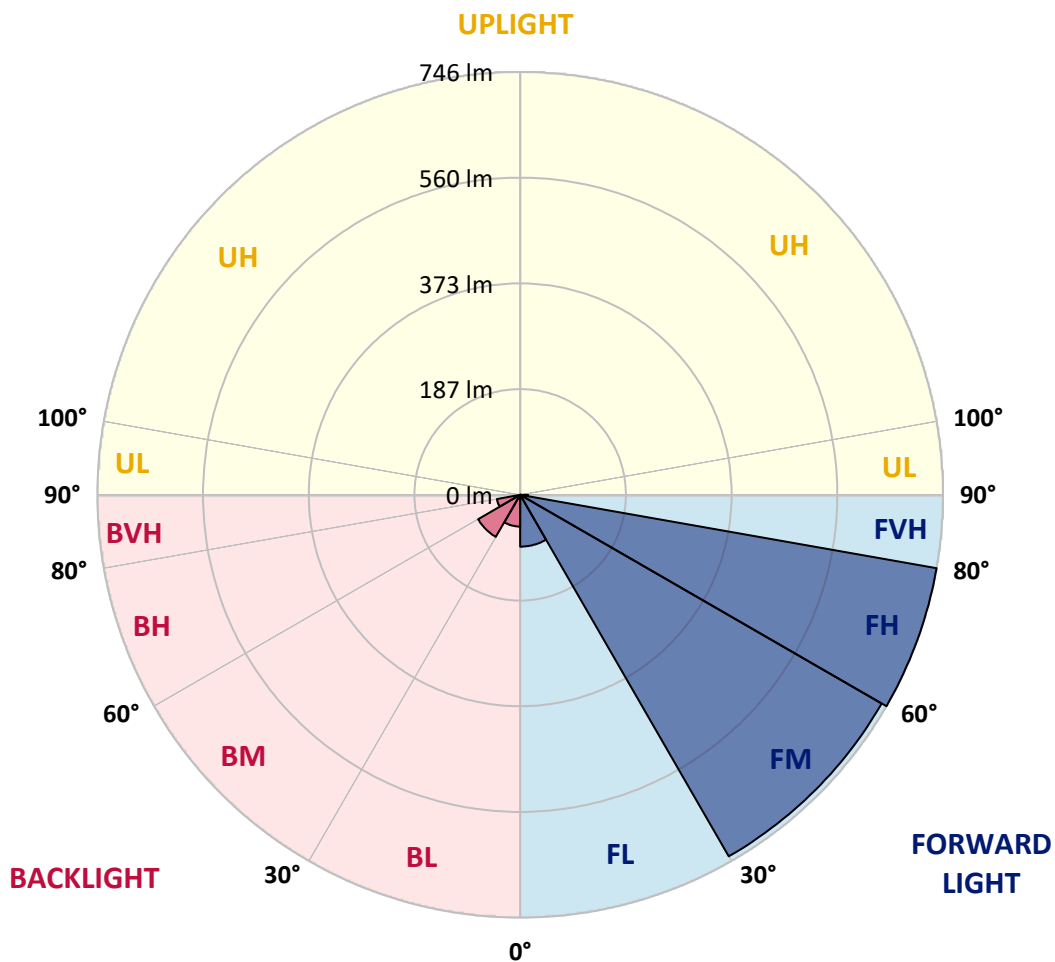
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	91.5	5.2			
FM	(30°-60°)	736.6	41.6			
FH	(60°-80°)	746.2	42.1			G1/1800
FVH	(80°-90°)	13.7	0.8			G1/100
BL	(0°-30°)	56.0	3.2	B0/110		
BM	(30°-60°)	85.7	4.8	B0/220		
BH	(60°-80°)	41.7	2.4	B0/110		G0/110
BVH	(80°-90°)	0.1	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°	200.2	200.2	200.2	200.2	200.2	200.2	200.2	200.2	200.2	200.2	200.2
2.5°	197.3	197.3	197.3	197.7	198.2	198.2	199.0	198.5	198.5	198.5	199.5
5°	192.0	192.3	192.7	193.7	195.2	196.5	198.5	198.5	199.0	199.9	200.2
7.5°	184.5	185.0	186.2	187.8	191.1	194.0	197.3	198.2	199.5	201.5	202.3
10°	180.0	180.7	182.4	184.5	188.3	192.0	196.1	197.3	201.0	204.8	206.8
12.5°	178.8	179.1	180.7	184.2	188.6	193.1	198.5	199.9	205.2	210.9	214.2
15°	180.7	181.2	182.0	185.8	191.1	196.9	203.9	205.6	212.2	218.7	222.9
17.5°	184.5	184.5	185.4	188.6	194.5	201.0	210.2	212.5	220.1	227.5	232.0
20°	186.9	186.9	188.3	191.6	198.2	206.8	217.6	220.9	229.1	237.3	241.6
22.5°	189.5	189.9	191.1	194.8	202.3	214.2	226.6	230.0	239.4	248.1	252.2
25°	196.5	196.1	196.5	199.9	208.4	223.3	238.9	243.1	253.1	262.6	264.6
27.5°	216.0	215.1	209.8	207.7	214.2	232.8	254.7	258.8	270.4	279.9	279.9
30°	260.5	258.8	245.6	228.7	223.3	241.6	269.6	275.3	290.2	298.4	296.0
32.5°	317.0	313.2	296.4	267.5	246.0	253.1	285.2	291.9	310.9	317.9	312.5
35°	378.9	378.5	357.4	320.3	289.9	276.9	305.5	313.2	337.3	343.4	334.8
37.5°	444.7	446.3	432.3	381.1	345.0	316.3	332.4	341.4	370.7	378.1	369.9
40°	517.7	517.2	511.9	451.2	411.6	372.0	371.1	379.4	414.8	426.4	414.8
42.5°	610.2	609.3	589.8	535.4	492.1	444.7	427.7	430.6	470.3	489.1	472.2
45°	704.2	698.5	676.2	629.2	590.7	534.6	502.4	502.4	536.3	562.2	535.7
47.5°	756.7	751.0	741.8	715.8	704.2	641.5	594.0	588.3	614.7	641.1	603.9
50°	825.6	825.6	802.9	793.1	812.8	768.7	695.2	689.4	702.1	723.2	674.5
52.5°	880.1	870.2	854.1	862.8	919.3	899.2	796.3	785.2	795.1	800.4	736.0
55°	902.8	893.4	892.0	923.8	1011.4	983.4	899.9	890.0	889.2	862.8	789.7
57.5°	907.4	899.2	914.8	970.4	1101.0	1052.3	1003.1	995.7	972.5	906.5	844.6
60°	869.0	873.2	911.2	996.1	1153.9	1112.1	1090.3	1082.4	1029.2	943.7	905.8
62.5°	790.1	800.0	871.0	998.6	1134.4	1136.4	1138.5	1133.2	1072.8	977.5	967.3
65°	696.8	699.7	785.2	964.3	1100.6	1129.0	1174.1	1173.6	1106.4	1015.5	1036.6
67.5°	574.2	579.1	653.1	848.8	1032.8	1125.8	1220.6	1219.4	1144.4	1058.8	1077.8
70°	427.2	433.4	493.3	660.1	881.7	1084.4	1281.8	1282.6	1184.3	1091.9	1049.4
71°	333.1	344.3	407.0	560.6	804.6	1042.8	1287.6	1294.9	1188.8	1087.4	990.7
72.5°	163.5	176.6	255.6	394.6	662.1	949.5	1249.6	1264.0	1160.4	1030.7	847.1
75°	42.5	44.9	76.4	161.4	355.0	629.2	1007.7	1044.4	948.6	784.8	517.7
77.5°	26.8	27.7	35.9	62.7	132.9	238.9	592.0	610.2	542.0	397.5	182.4
80°	19.0	19.5	22.6	40.5	77.7	69.8	213.0	220.9	196.1	105.3	32.6
82.5°	11.6	11.6	16.4	26.1	47.9	38.0	56.1	59.8	52.8	29.4	10.7
85°	6.6	7.0	10.3	17.7	22.6	18.5	21.1	22.3	22.6	19.5	4.5
87.5°	5.4	5.7	9.2	14.8	12.3	9.2	9.2	9.5	9.9	11.6	2.1
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°	200.2	200.2	200.2	200.2	200.2	200.2	200.2	200.2	200.2	200.2	200.2
2.5°	199.5	199.5	199.9	199.5	199.5	199.5	199.9	199.9	199.9	200.6	201.0
5°	200.2	200.2	200.2	199.9	199.5	199.5	200.2	200.6	200.6	201.8	201.8
7.5°	202.3	202.3	201.5	200.6	199.9	198.5	199.0	199.5	199.0	199.5	199.5
10°	206.8	206.8	205.6	203.9	201.5	197.7	192.7	186.6	180.7	178.8	178.0
12.5°	214.2	213.8	211.3	208.4	203.0	190.4	171.8	149.8	131.7	126.8	125.0
15°	222.5	221.7	218.7	213.8	199.5	165.6	126.8	98.6	81.3	77.3	76.4
17.5°	231.1	230.0	225.8	216.0	182.4	123.0	81.7	62.0	52.5	51.7	52.0
20°	240.2	238.6	232.8	211.8	147.4	82.1	52.8	47.9	47.0	47.0	47.5
22.5°	250.5	248.6	240.7	196.9	107.3	54.4	45.5	44.9	44.6	44.1	44.1
25°	262.6	260.1	248.1	170.0	73.9	44.6	43.4	42.1	41.3	40.5	40.1
27.5°	276.9	273.8	254.0	137.0	50.8	41.7	40.9	38.7	37.2	35.6	35.6
30°	291.4	287.3	252.2	103.2	41.3	38.7	37.2	34.7	32.2	30.5	30.2
32.5°	306.7	302.5	241.6	69.3	37.5	35.6	33.4	29.7	26.8	24.8	24.3
35°	329.4	326.2	220.4	45.9	33.9	31.4	28.4	24.8	21.1	19.0	18.5
37.5°	363.3	359.1	194.5	35.2	29.7	26.1	23.5	19.5	15.7	13.7	13.2
40°	408.6	396.3	163.5	30.9	26.1	21.5	18.1	14.1	11.1	9.9	9.9
42.5°	461.5	432.3	130.1	28.0	23.1	17.7	13.2	9.5	7.8	7.5	7.5
45°	517.7	465.6	96.6	26.1	20.2	14.1	9.5	6.6	5.7	5.4	5.4
47.5°	575.5	492.9	67.4	23.5	16.9	10.7	6.6	4.9	4.1	3.8	3.8
50°	629.5	510.6	47.5	21.1	14.5	7.8	4.9	3.8	2.9	2.9	2.9
52.5°	667.1	509.0	34.2	18.1	11.1	5.4	3.4	2.4	2.4	2.4	2.4
55°	700.0	502.8	26.8	15.7	8.7	3.8	2.4	2.1	2.1	1.6	1.6
57.5°	728.2	492.9	22.6	12.8	6.2	2.9	1.6	1.6	1.3	1.3	1.3
60°	752.2	480.6	19.0	10.7	4.1	2.1	1.3	0.8	0.8	0.4	0.8
62.5°	784.8	472.7	16.4	8.3	2.9	1.3	0.8	0.4	0.4	0.0	0.0
65°	808.7	457.7	14.1	5.7	1.6	0.8	0.4	0.4	0.0	0.0	0.0
67.5°	809.6	430.9	10.3	3.4	1.3	0.8	0.4	0.0	0.0	0.0	0.0
70°	744.2	367.3	6.6	1.6	0.8	0.4	0.4	0.0	0.0	0.0	0.0
71°	684.5	325.2	5.4	1.3	0.8	0.4	0.0	0.0	0.0	0.0	0.0
72.5°	563.9	238.9	4.1	1.3	0.4	0.4	0.0	0.0	0.0	0.0	0.0
75°	310.9	86.6	2.1	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	99.5	26.4	1.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	16.9	4.1	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	5.7	1.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	1.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.8	0.4	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)