

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: P214798

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214798  
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-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 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: 2920.5 lumens  
Efficiency: N/A  
Efficacy: 94.2 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

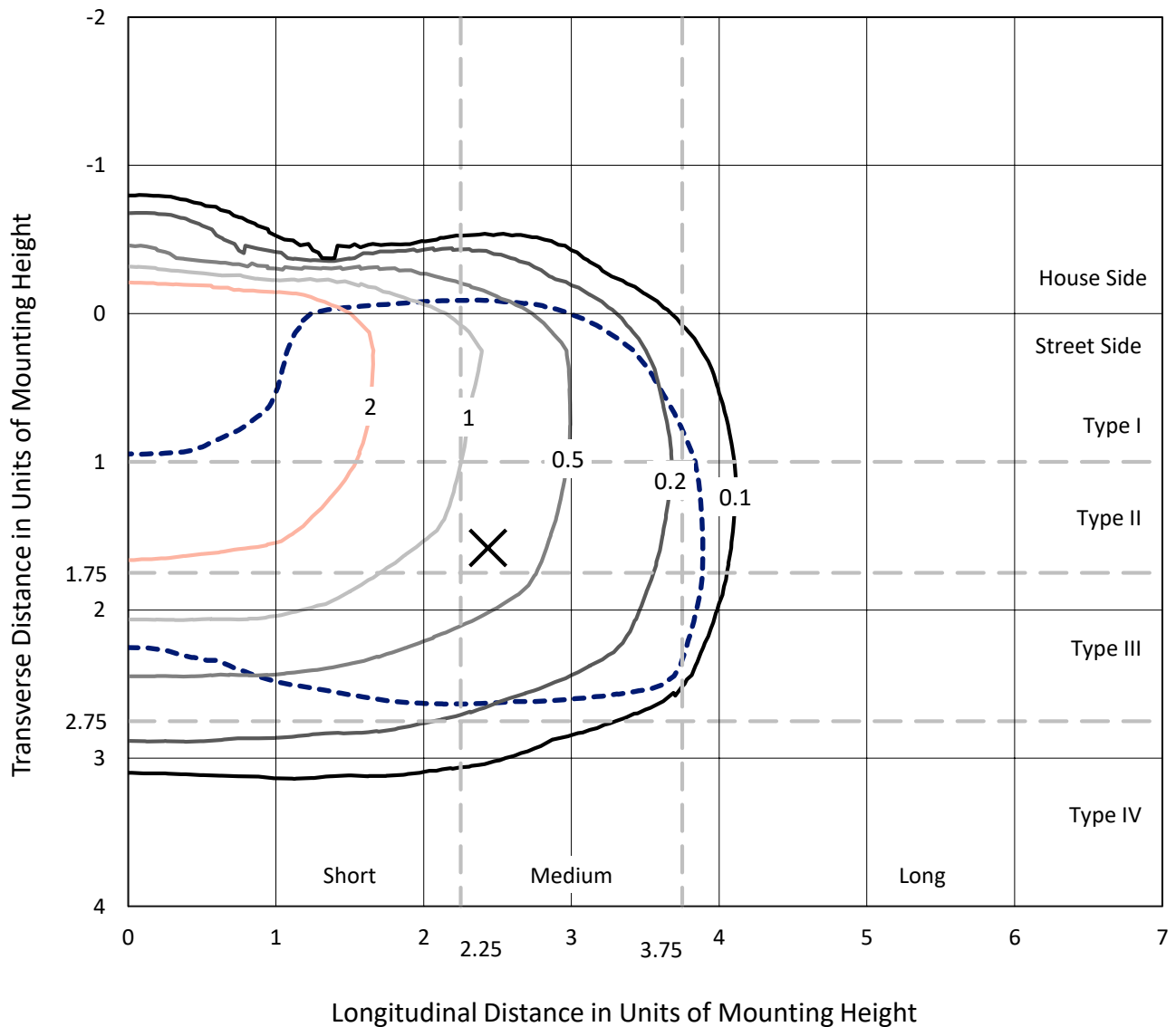
Input Watts (W): 31  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

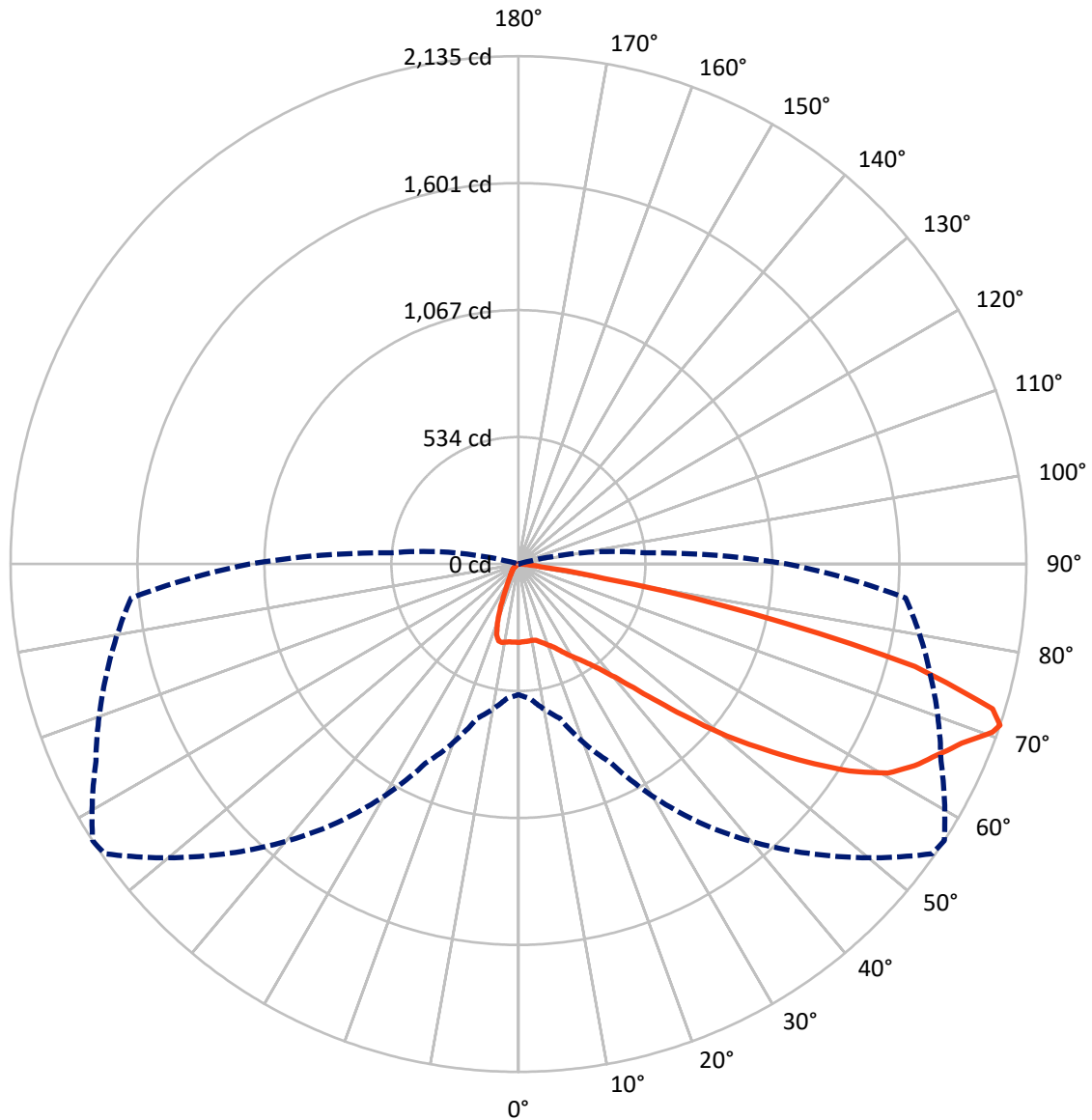


Based on 10 foot mounting height. Maximum calculated value = 4.1 fc  
 Type III - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



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

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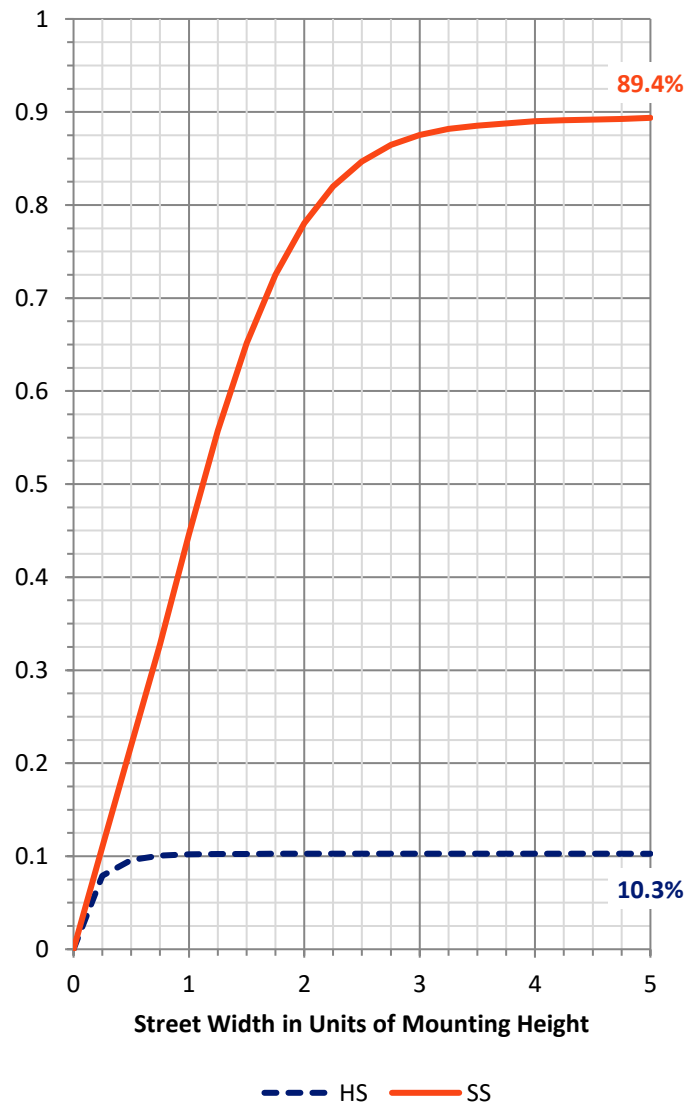
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	302.7	0.0	302.7
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	2617.9	0.0	2617.9
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	2920.5	0.0	2920.5
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.0	1.1
10°-20°	82.9	2.8
20°-30°	129.3	4.4
30°-40°	218.5	7.5
40°-50°	424.4	14.5
50°-60°	712.8	24.4
60°-70°	850.6	29.1
70°-80°	448.3	15.3
80°-90°	22.8	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°	2920.5	100.0
0°-180°	2920.5	100.0

**Coefficient of Utilization**



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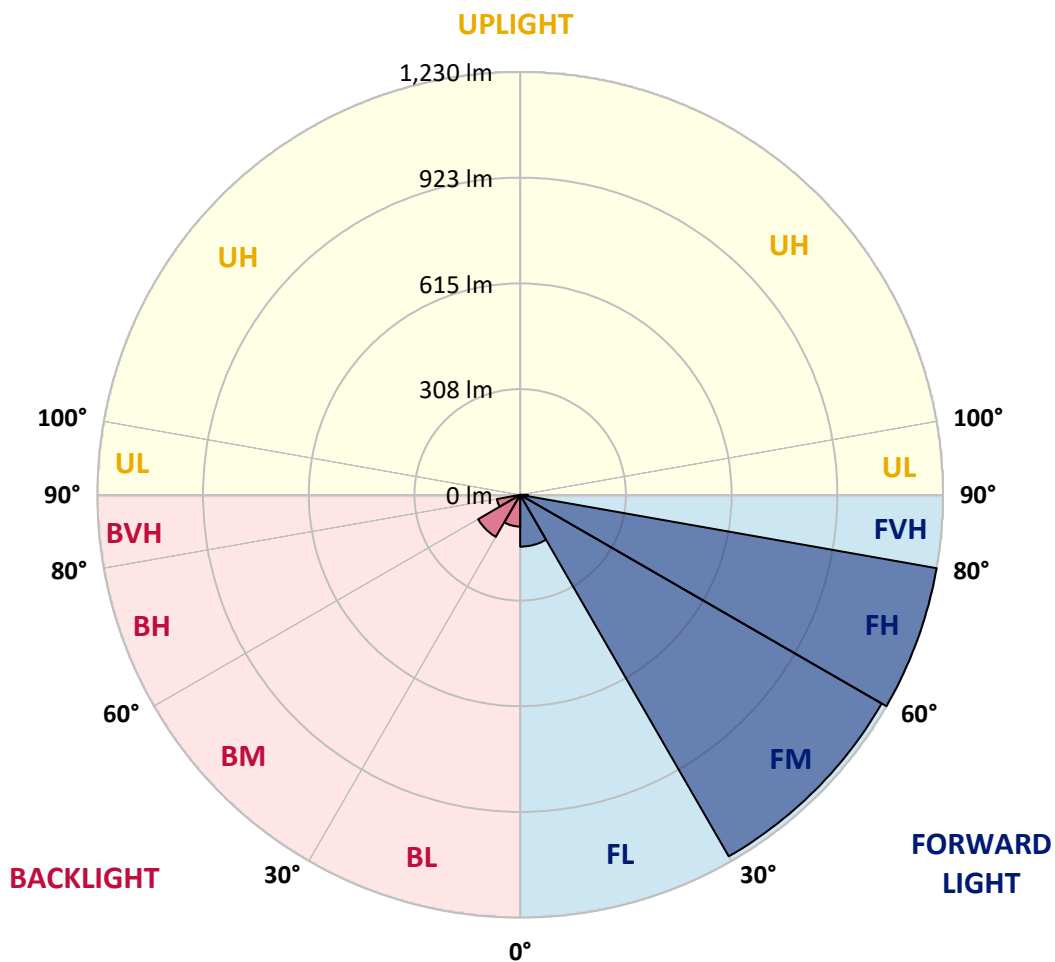
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	150.8	5.2			
FM	(30°-60°)	1214.4	41.6			
FH	(60°-80°)	1230.1	42.1			G1/1800
FVH	(80°-90°)	22.6	0.8			G1/100
BL	(0°-30°)	92.4	3.2	B0/110		
BM	(30°-60°)	141.3	4.8	B0/220		
BH	(60°-80°)	68.7	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°	330.1	330.1	330.1	330.1	330.1	330.1	330.1	330.1	330.1	330.1	330.1
2.5°	325.3	325.3	325.3	326.0	326.6	326.6	328.1	327.3	327.3	327.3	328.7
5°	316.5	317.1	317.8	319.2	321.9	324.0	327.3	327.3	328.1	329.4	330.1
7.5°	304.2	304.8	306.9	309.6	315.1	319.9	325.3	326.6	328.7	332.2	333.5
10°	296.8	298.1	300.8	304.2	310.4	316.5	323.3	325.3	331.4	337.6	340.9
12.5°	294.7	295.3	298.1	303.5	311.0	318.4	327.3	329.4	338.2	347.8	353.2
15°	298.1	298.8	300.1	306.3	315.1	324.6	336.1	338.9	349.8	360.7	367.4
17.5°	304.2	304.2	305.6	311.0	320.5	331.4	346.4	350.5	362.7	375.0	382.5
20°	308.3	308.3	310.4	315.8	326.6	340.9	358.6	364.1	377.7	391.3	398.1
22.5°	312.4	313.0	315.1	321.2	333.5	353.2	373.6	379.1	394.8	409.0	415.8
25°	324.0	323.3	324.0	329.4	343.7	368.2	394.0	400.8	417.2	432.8	436.2
27.5°	355.9	354.6	345.8	342.3	353.2	383.8	419.9	426.7	445.8	461.5	461.5
30°	429.4	426.7	404.9	377.1	368.2	398.1	444.4	453.9	478.4	492.0	487.9
32.5°	522.6	516.5	488.7	441.0	405.6	417.2	470.3	481.1	512.5	524.1	515.2
35°	624.7	624.1	589.3	528.1	477.7	456.6	503.6	516.5	556.0	566.2	551.9
37.5°	732.9	735.7	712.5	628.1	569.0	521.3	547.8	562.8	611.1	623.4	609.8
40°	853.4	852.7	843.8	743.8	678.5	613.2	611.8	625.4	683.9	703.0	683.9
42.5°	1005.9	1004.4	972.5	882.7	811.2	732.9	705.0	709.8	775.1	806.5	778.6
45°	1161.0	1151.4	1114.7	1037.2	973.8	881.3	828.2	828.2	884.0	926.9	883.3
47.5°	1247.4	1237.9	1222.9	1180.1	1161.0	1057.5	979.3	969.8	1013.3	1056.9	995.6
50°	1361.0	1361.0	1323.7	1307.3	1340.0	1267.1	1146.0	1136.5	1157.6	1192.4	1112.0
52.5°	1451.0	1434.6	1408.1	1422.3	1515.6	1482.3	1312.8	1294.4	1310.7	1319.6	1213.4
55°	1488.4	1472.7	1470.7	1523.1	1667.3	1621.1	1483.6	1467.2	1465.9	1422.3	1301.9
57.5°	1495.9	1482.3	1508.0	1600.0	1815.0	1734.7	1653.7	1641.4	1603.4	1494.4	1392.4
60°	1432.5	1439.4	1502.0	1642.1	1902.1	1833.4	1797.3	1784.4	1696.6	1555.7	1493.1
62.5°	1302.5	1318.9	1435.9	1646.2	1870.2	1873.5	1876.9	1868.1	1768.7	1611.6	1594.5
65°	1148.8	1153.5	1294.4	1589.8	1814.3	1861.3	1935.4	1934.8	1823.8	1674.2	1708.8
67.5°	946.6	954.8	1076.7	1399.2	1702.7	1855.8	2012.3	2010.3	1886.4	1745.6	1776.9
70°	704.4	714.5	813.2	1088.2	1453.6	1787.8	2113.1	2114.4	1952.5	1800.1	1729.9
71°	549.2	567.5	671.1	924.1	1326.4	1719.1	2122.6	2134.9	1960.0	1792.5	1633.3
72.5°	269.4	291.2	421.3	650.6	1091.6	1565.2	2060.0	2083.9	1913.0	1699.3	1396.4
75°	70.1	74.2	125.9	266.1	585.2	1037.2	1661.2	1721.7	1563.9	1293.7	853.4
77.5°	44.2	45.6	59.2	103.4	219.1	394.0	975.9	1005.9	893.5	655.4	300.8
80°	31.3	32.0	37.4	66.7	128.0	115.0	351.2	364.1	323.3	173.5	53.8
82.5°	19.0	19.0	27.2	42.9	79.0	62.6	92.6	98.7	87.2	48.3	17.7
85°	10.8	11.6	17.0	29.3	37.4	30.6	34.7	36.7	37.4	32.0	7.5
87.5°	8.8	9.5	14.9	24.4	20.5	14.9	14.9	15.7	16.4	19.0	3.4
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°	330.1	330.1	330.1	330.1	330.1	330.1	330.1	330.1	330.1	330.1	330.1
2.5°	328.7	328.7	329.4	328.7	328.7	328.7	329.4	329.4	329.4	330.7	331.4
5°	330.1	330.1	330.1	329.4	328.7	328.7	330.1	330.7	330.7	332.8	332.8
7.5°	333.5	333.5	332.2	330.7	329.4	327.3	328.1	328.7	328.1	328.7	328.7
10°	340.9	340.9	338.9	336.1	332.2	326.0	317.8	307.6	298.1	294.7	293.3
12.5°	353.2	352.5	348.4	343.7	334.8	313.7	283.2	247.0	217.1	208.9	206.2
15°	366.8	365.5	360.7	352.5	328.7	272.9	208.9	162.6	134.1	127.3	125.9
17.5°	381.2	379.1	372.3	355.9	300.8	202.9	134.7	102.1	86.4	85.1	85.7
20°	396.1	393.3	383.8	349.1	243.0	135.4	87.2	79.0	77.5	77.5	78.3
22.5°	413.1	409.7	396.8	324.6	177.0	89.8	74.9	74.2	73.4	72.8	72.8
25°	432.8	428.7	409.0	280.4	121.8	73.4	71.5	69.5	68.0	66.7	66.0
27.5°	456.6	451.2	418.5	226.0	83.7	68.7	67.4	63.9	61.3	58.5	58.5
30°	480.5	473.6	415.8	170.1	68.0	63.9	61.3	57.2	53.1	50.3	49.7
32.5°	505.6	498.8	398.1	114.4	61.9	58.5	55.1	49.0	44.2	40.8	40.2
35°	543.1	537.7	363.5	75.5	55.9	51.8	47.0	40.8	34.7	31.3	30.6
37.5°	598.8	592.1	320.5	57.8	49.0	42.9	38.8	32.0	25.9	22.5	21.8
40°	673.7	653.4	269.4	51.0	42.9	35.4	30.0	23.1	18.4	16.4	16.4
42.5°	760.9	712.5	214.4	46.2	38.2	29.3	21.8	15.7	12.9	12.3	12.3
45°	853.4	767.6	159.3	42.9	33.3	23.1	15.7	10.8	9.5	8.8	8.8
47.5°	948.7	812.5	110.9	38.8	27.9	17.7	10.8	8.2	6.9	6.1	6.1
50°	1037.8	841.8	78.3	34.7	23.8	12.9	8.2	6.1	4.8	4.8	4.8
52.5°	1099.8	839.1	56.5	30.0	18.4	8.8	5.4	4.1	4.1	4.1	4.1
55°	1154.2	828.9	44.2	25.9	14.3	6.1	4.1	3.4	3.4	2.8	2.8
57.5°	1200.4	812.5	37.4	21.1	10.2	4.8	2.8	2.8	2.0	2.0	2.0
60°	1239.9	792.2	31.3	17.7	6.9	3.4	2.0	1.3	1.3	0.7	1.3
62.5°	1293.7	779.2	27.2	13.6	4.8	2.0	1.3	0.7	0.7	0.0	0.0
65°	1333.2	754.7	23.1	9.5	2.8	1.3	0.7	0.7	0.0	0.0	0.0
67.5°	1334.5	710.4	17.0	5.4	2.0	1.3	0.7	0.0	0.0	0.0	0.0
70°	1227.0	605.7	10.8	2.8	1.3	0.7	0.7	0.0	0.0	0.0	0.0
71°	1128.3	536.2	8.8	2.0	1.3	0.7	0.0	0.0	0.0	0.0	0.0
72.5°	929.7	394.0	6.9	2.0	0.7	0.7	0.0	0.0	0.0	0.0	0.0
75°	512.5	142.9	3.4	1.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	164.0	43.6	2.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	27.9	6.9	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	9.5	2.8	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.8	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)