

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: P265894

Luminaire Tested: **ARCH-AF16-40-D-U-T4W-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265894
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF16-40-D-U-T4W-7027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 740mA LIGHT ENGINE WITH 16 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2922.8 lumens
Efficiency: N/A
Efficacy: 69.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B0 - U0 - G1

Input Watts (W): 42
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

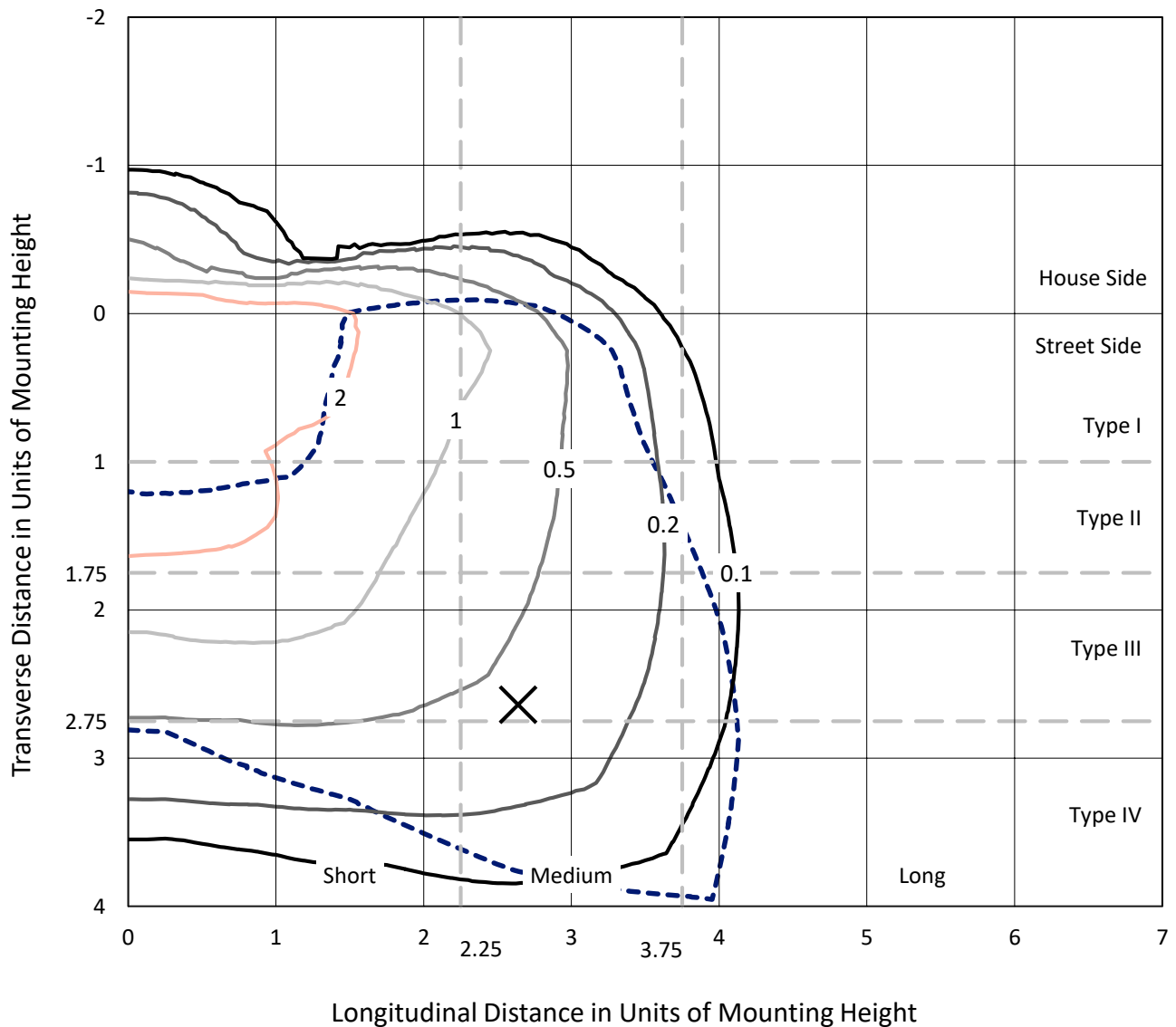


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

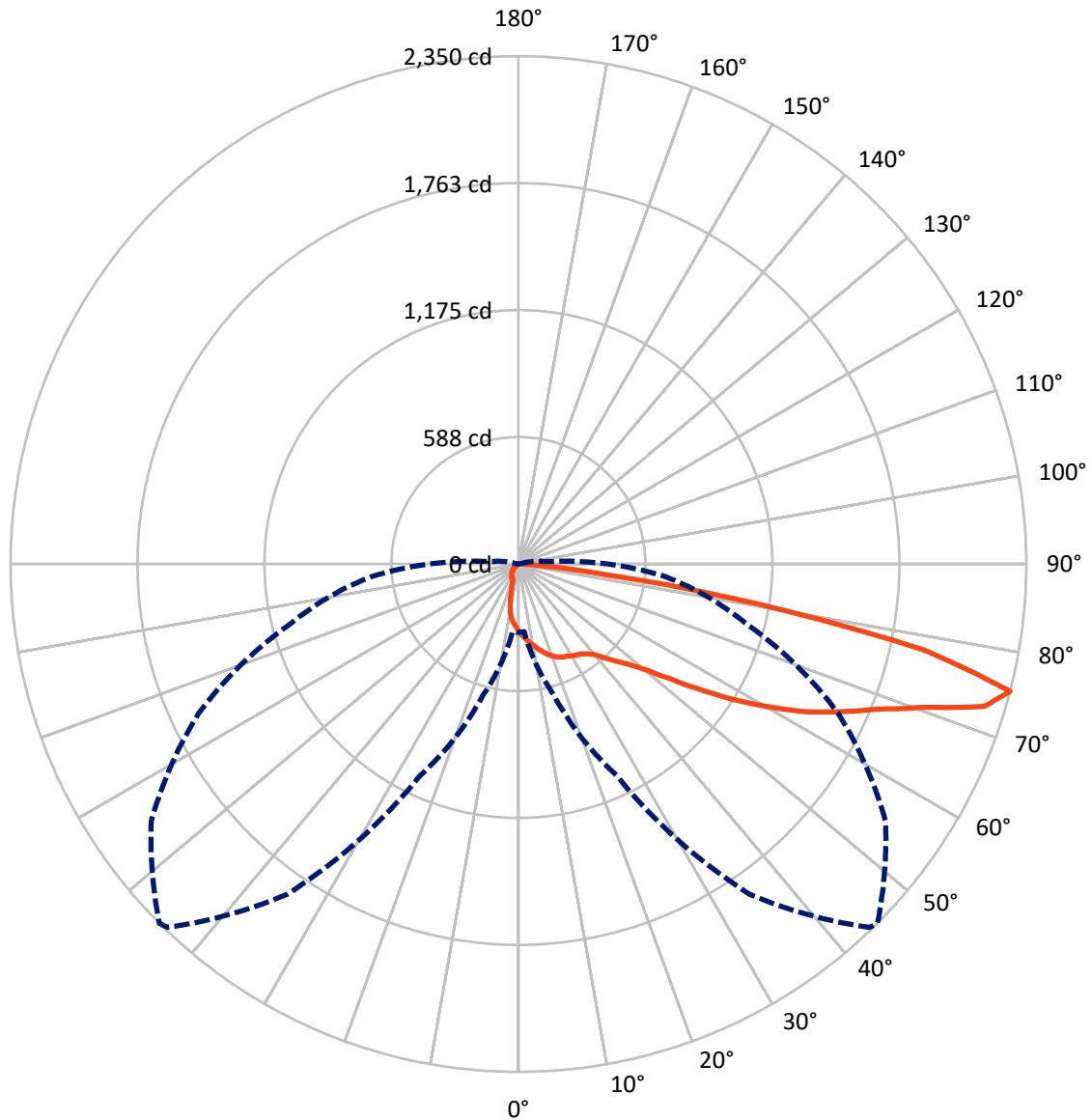


Based on 10 foot mounting height. Maximum calculated value = 4.2 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical



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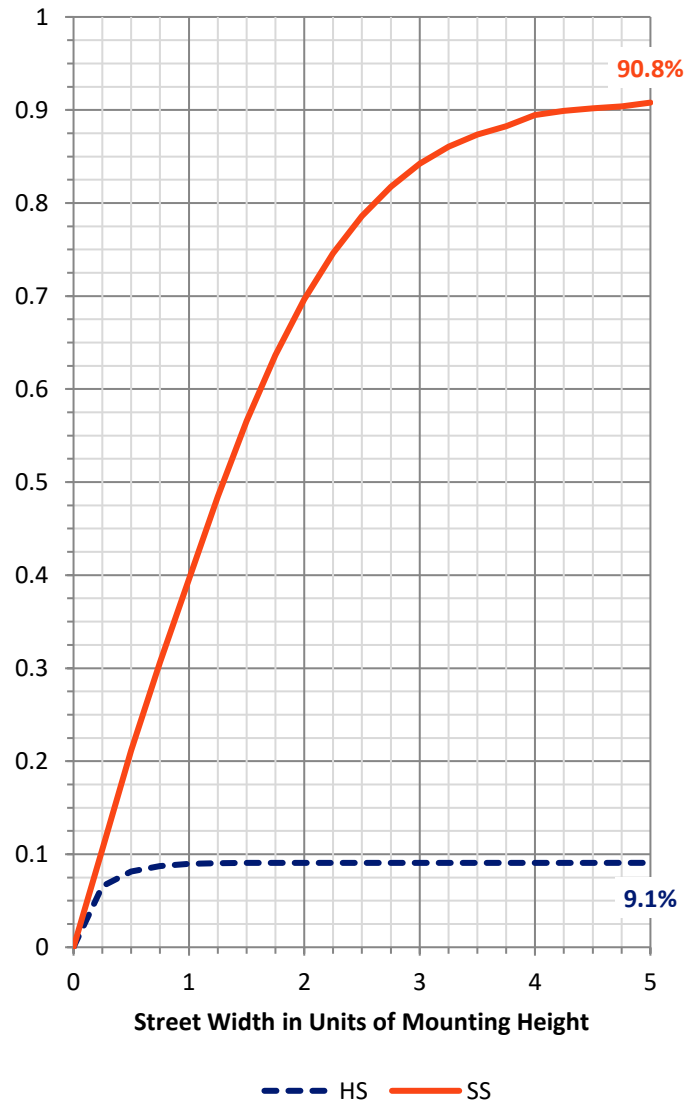
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	267.3	0.0	267.3
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	2655.5	0.0	2655.5
	% Fixture	90.9	0.0	90.9
Total	Lumens	2922.8	0.0	2922.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.5	1.0
10°-20°	83.6	2.9
20°-30°	138.4	4.7
30°-40°	200.3	6.9
40°-50°	328.0	11.2
50°-60°	584.5	20.0
60°-70°	859.3	29.4
70°-80°	648.3	22.2
80°-90°	50.9	1.7
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°	2922.8	100.0
0°-180°	2922.8	100.0



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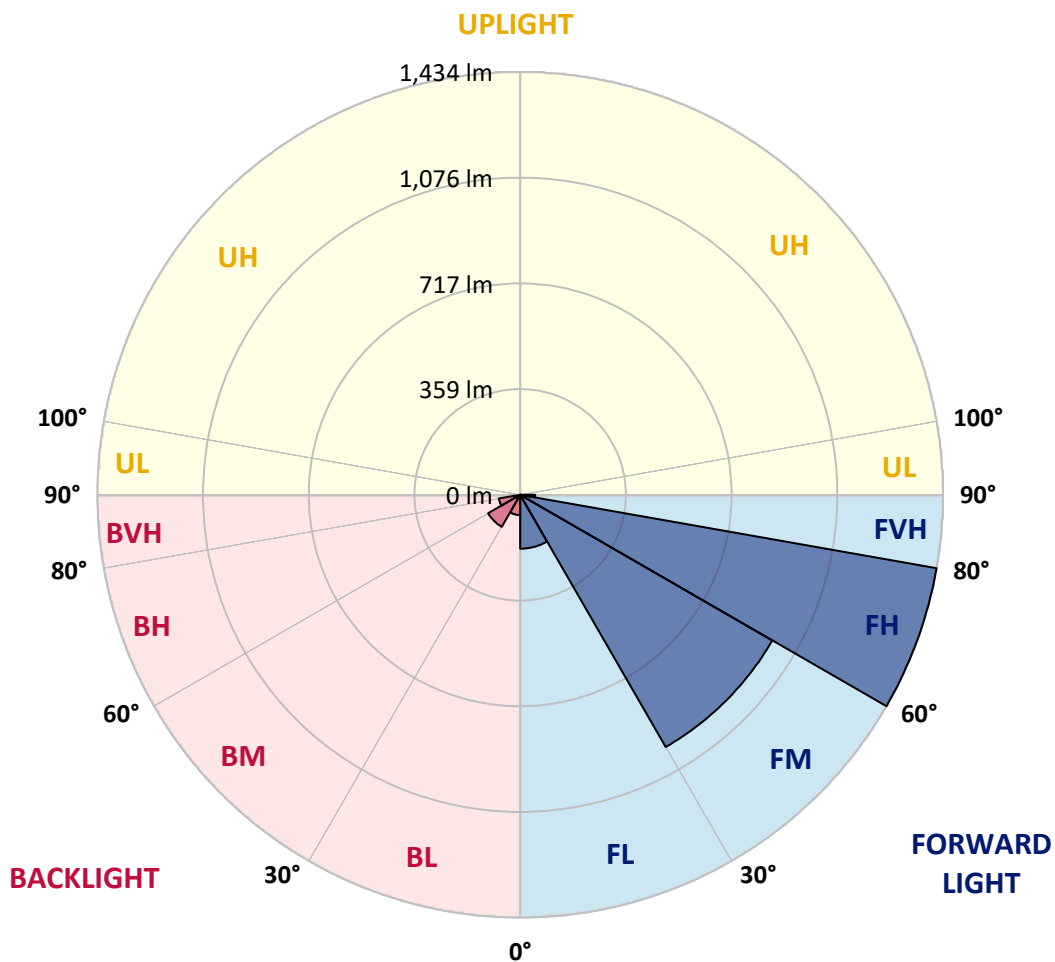
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	182.8	6.3			
FM	(30°-60°)	987.6	33.8			
FH	(60°-80°)	1434.3	49.1			G1/1800
FVH	(80°-90°)	50.7	1.7			G1/100
BL	(0°-30°)	68.7	2.4	B0/110		
BM	(30°-60°)	125.3	4.3	B0/220		
BH	(60°-80°)	73.2	2.5	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 IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	312.6	312.6	312.6	312.6	312.6	312.6	312.6	312.6	312.6	312.6	312.6
2.5°	339.6	339.6	338.9	338.2	334.8	331.3	330.5	328.5	322.3	318.2	314.0
5°	367.9	368.7	367.2	363.9	356.2	348.6	348.0	342.3	330.5	322.3	313.2
7.5°	395.0	396.3	392.9	386.6	377.6	366.6	365.9	355.5	340.3	328.5	315.3
10°	417.7	417.7	413.0	405.2	395.7	383.8	382.5	370.7	353.5	338.9	321.7
12.5°	442.7	442.0	435.0	424.7	413.6	402.5	401.8	387.3	370.7	352.0	330.5
15°	465.4	464.1	455.1	445.4	433.6	421.9	421.1	406.7	389.3	367.2	343.7
17.5°	477.9	477.2	468.9	459.3	449.5	440.6	439.9	424.7	405.9	383.1	356.8
20°	480.0	480.7	473.8	465.4	459.9	455.1	455.1	441.2	421.1	397.1	370.7
22.5°	480.7	482.7	477.9	466.8	465.4	466.2	467.6	456.5	435.7	413.0	385.3
25°	485.5	488.3	484.8	471.7	470.4	475.2	476.6	471.7	453.0	430.2	401.8
27.5°	495.1	498.0	495.1	478.5	476.6	481.4	482.7	485.5	471.7	446.7	419.1
30°	514.5	515.3	509.0	488.3	484.1	490.4	492.5	500.0	488.9	462.6	435.7
32.5°	548.4	541.6	522.9	495.1	491.7	498.6	500.7	509.0	504.8	477.9	453.0
35°	617.7	581.7	538.8	504.8	501.4	508.4	511.1	522.9	524.9	499.4	474.5
37.5°	617.0	584.4	576.2	523.5	518.7	523.5	527.0	541.6	549.9	527.8	505.6
40°	660.6	646.7	646.7	558.8	542.9	549.9	553.3	567.8	582.3	565.0	542.2
42.5°	797.4	788.4	778.8	626.6	576.8	596.1	598.2	607.3	624.5	619.0	592.1
45°	950.2	942.1	904.7	741.5	634.9	638.3	643.1	657.6	682.6	693.0	661.2
47.5°	1069.9	1061.6	1029.8	879.7	725.6	695.1	695.1	723.5	762.2	788.4	758.0
50°	1166.1	1156.4	1137.1	1027.0	874.2	776.8	772.5	805.7	863.1	904.0	883.3
52.5°	1259.5	1231.0	1219.3	1179.3	1042.3	894.9	883.9	907.4	987.0	1037.5	1020.1
55°	1321.6	1317.5	1305.1	1318.9	1218.6	1038.8	1029.2	1033.9	1133.7	1167.4	1146.0
57.5°	1379.7	1379.1	1406.7	1471.1	1410.9	1203.4	1188.2	1180.6	1275.4	1267.1	1285.7
60°	1451.8	1439.3	1503.7	1595.6	1587.2	1363.8	1346.6	1331.4	1384.0	1360.5	1453.1
62.5°	1455.2	1451.8	1582.5	1714.5	1762.2	1527.1	1507.0	1452.4	1478.7	1451.8	1612.8
65°	1323.1	1340.5	1615.6	1777.4	1908.9	1670.3	1646.1	1561.1	1563.1	1545.1	1801.0
67.5°	1293.3	1302.4	1524.3	1845.3	2014.7	1814.8	1791.9	1686.2	1661.2	1662.7	1912.3
70°	1219.3	1233.2	1410.9	1840.4	2098.4	2007.8	1985.0	1870.1	1809.9	1742.9	1826.6
72.5°	931.6	955.2	1188.8	1613.5	2075.5	2260.2	2253.9	2103.2	1869.5	1600.4	1381.9
75°	315.3	314.6	624.5	1083.7	1864.6	2337.7	2350.1	2074.1	1630.9	1103.8	686.0
77.5°	67.8	68.5	128.6	439.2	1238.8	1877.1	1924.8	1564.5	1051.9	491.7	157.1
80°	33.1	33.9	53.3	116.2	495.1	1052.6	1127.4	804.3	388.6	98.3	26.3
82.5°	16.6	17.2	27.7	61.5	183.3	374.1	399.7	296.0	111.4	55.3	13.1
85°	6.2	6.2	13.8	36.7	83.7	87.9	107.8	85.8	67.2	44.9	3.5
87.5°	1.3	1.3	7.6	18.0	37.4	27.7	27.7	26.3	40.9	30.5	1.3
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°	312.6	312.6	312.6	312.6	312.6	312.6	312.6	312.6	312.6	312.6	312.6
2.5°	311.9	309.1	304.3	299.4	296.0	291.9	289.9	287.6	287.0	286.3	287.6
5°	308.5	304.3	295.4	287.6	280.8	275.3	271.1	266.9	264.9	263.6	264.2
7.5°	308.5	302.2	289.2	277.3	266.3	254.5	242.7	233.7	226.8	222.7	223.4
10°	311.9	303.6	286.3	270.4	249.6	224.8	199.2	179.8	166.6	159.1	159.1
12.5°	319.5	308.5	287.0	262.1	226.8	183.3	144.5	121.0	111.4	105.8	106.4
15°	329.9	316.7	290.5	251.0	195.0	136.3	101.0	85.8	85.8	87.1	87.9
17.5°	341.6	327.2	293.2	234.5	154.1	97.6	79.5	78.2	80.2	83.7	83.7
20°	353.5	337.6	294.6	208.1	115.5	77.4	75.4	75.4	76.7	80.2	80.8
22.5°	367.9	350.7	293.2	175.7	86.4	73.3	72.7	72.7	72.7	76.7	76.7
25°	383.1	365.9	287.6	141.2	73.3	70.5	69.9	69.2	69.2	72.7	73.3
27.5°	400.5	381.8	274.6	107.8	69.2	67.8	67.2	65.7	65.7	68.5	68.5
30°	417.7	399.7	254.5	81.7	65.7	64.9	63.6	62.3	60.8	63.6	63.6
32.5°	436.4	418.4	228.2	64.9	60.8	60.8	60.1	58.1	56.8	58.1	58.7
35°	461.3	439.9	198.4	56.8	54.6	54.6	54.6	54.0	51.2	52.6	52.6
37.5°	494.4	469.6	163.9	52.6	49.8	48.4	48.4	48.4	46.4	47.0	47.0
40°	536.6	504.2	130.8	49.0	46.4	42.8	41.5	42.2	40.9	40.9	40.2
42.5°	594.0	541.6	98.3	46.4	43.6	38.7	35.9	35.3	33.9	33.1	33.1
45°	676.5	587.2	70.5	43.6	41.5	33.9	31.1	29.0	25.6	23.5	23.5
47.5°	783.0	639.1	52.6	40.9	39.4	29.7	26.3	22.1	17.2	15.9	15.9
50°	912.9	697.2	44.2	36.7	35.9	26.3	20.8	14.6	9.7	8.4	9.1
52.5°	1039.5	751.8	39.4	32.5	31.8	22.8	15.2	7.6	4.1	4.1	4.1
55°	1146.0	790.5	35.9	29.0	27.7	18.0	8.4	3.5	2.1	2.1	2.1
57.5°	1242.1	812.6	32.5	25.6	22.1	12.4	3.5	1.3	1.3	0.7	0.7
60°	1330.0	825.8	28.3	22.1	17.2	6.8	1.3	0.7	0.7	0.0	0.0
62.5°	1416.4	835.5	24.3	18.0	13.1	2.8	0.7	0.7	0.0	0.0	0.0
65°	1482.2	832.0	19.4	14.6	8.4	1.3	0.7	0.0	0.0	0.0	0.0
67.5°	1480.0	784.9	14.6	11.0	4.1	0.7	0.0	0.0	0.0	0.0	0.0
70°	1323.7	661.2	9.7	6.8	1.3	0.7	0.0	0.0	0.0	0.0	0.0
72.5°	939.2	424.0	6.2	4.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0
75°	413.6	128.6	3.5	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	80.8	29.7	2.1	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	19.4	3.5	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	8.4	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.1	0.7	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)