

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: P234727

Luminaire Tested: **ARCH-AF16-50-D-U-T3-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234727
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-AF16-50-D-U-T3-8027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 980mA LIGHT ENGINE WITH 16 LEDS AND TYPE III OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3334 lumens
Efficiency: N/A
Efficacy: 62.9 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): 53
Input Voltage (V): NR
Input Current (A_{in}): 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

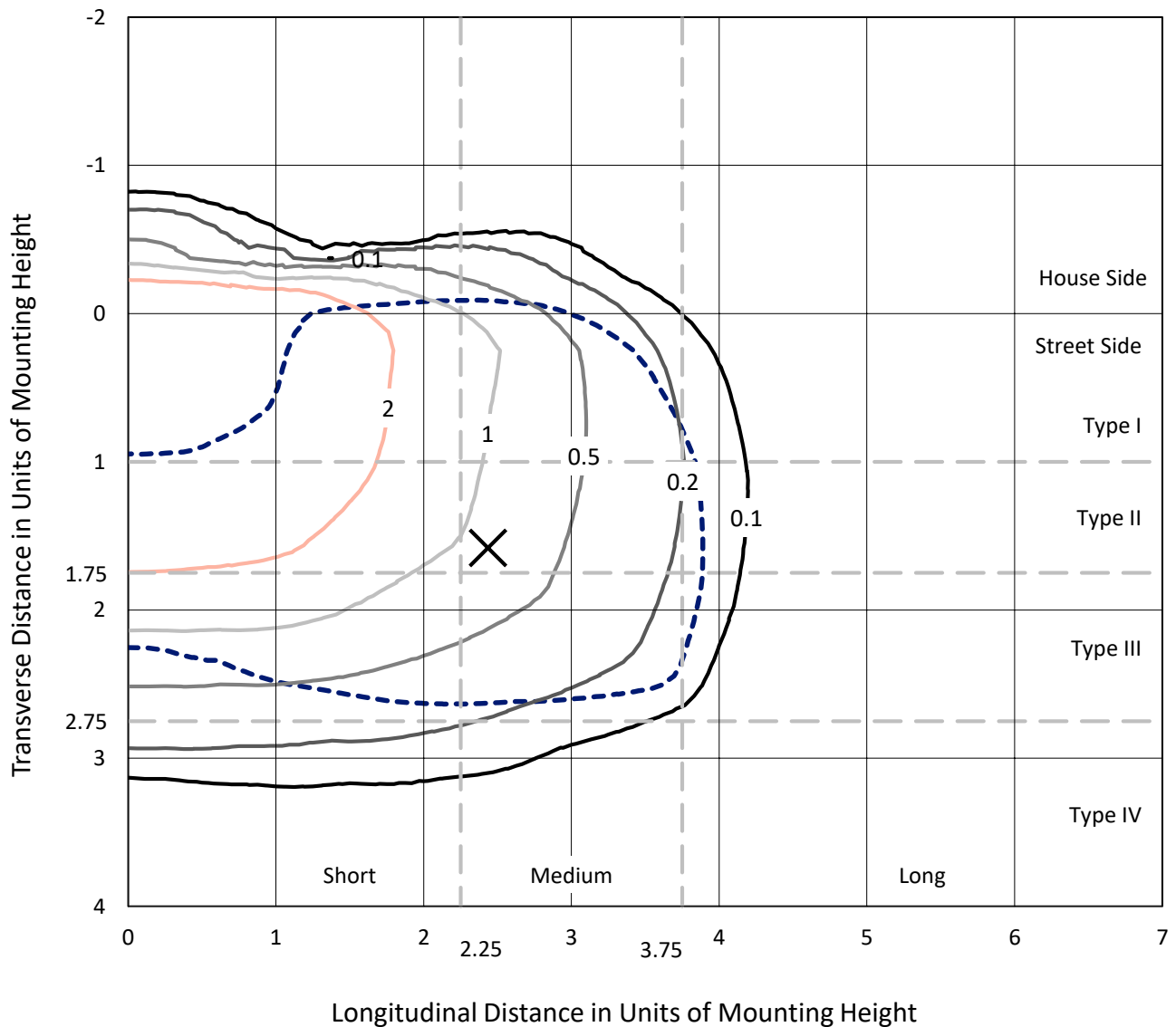


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

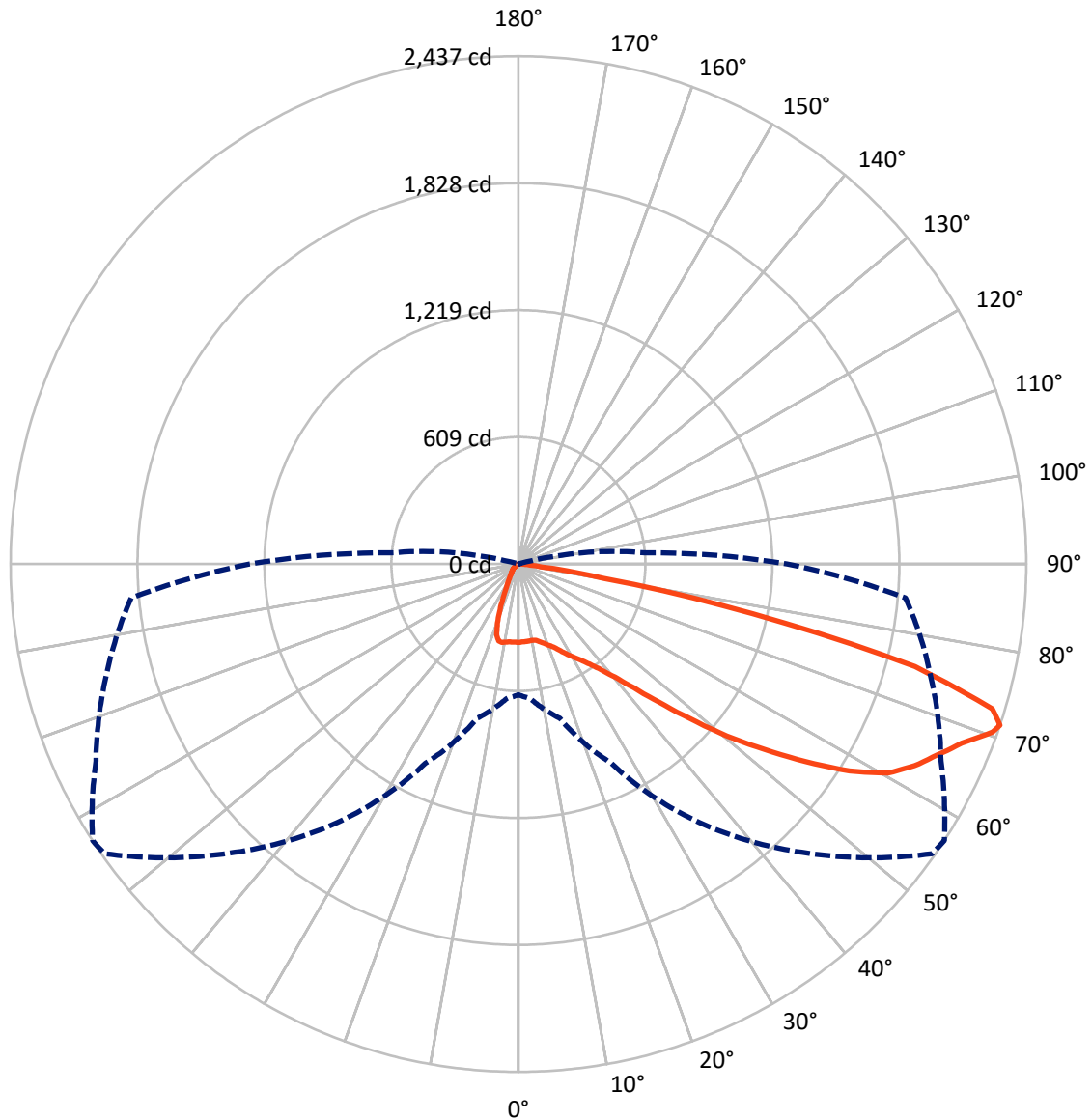


Based on 10 foot mounting height. Maximum calculated value = 4.7 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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



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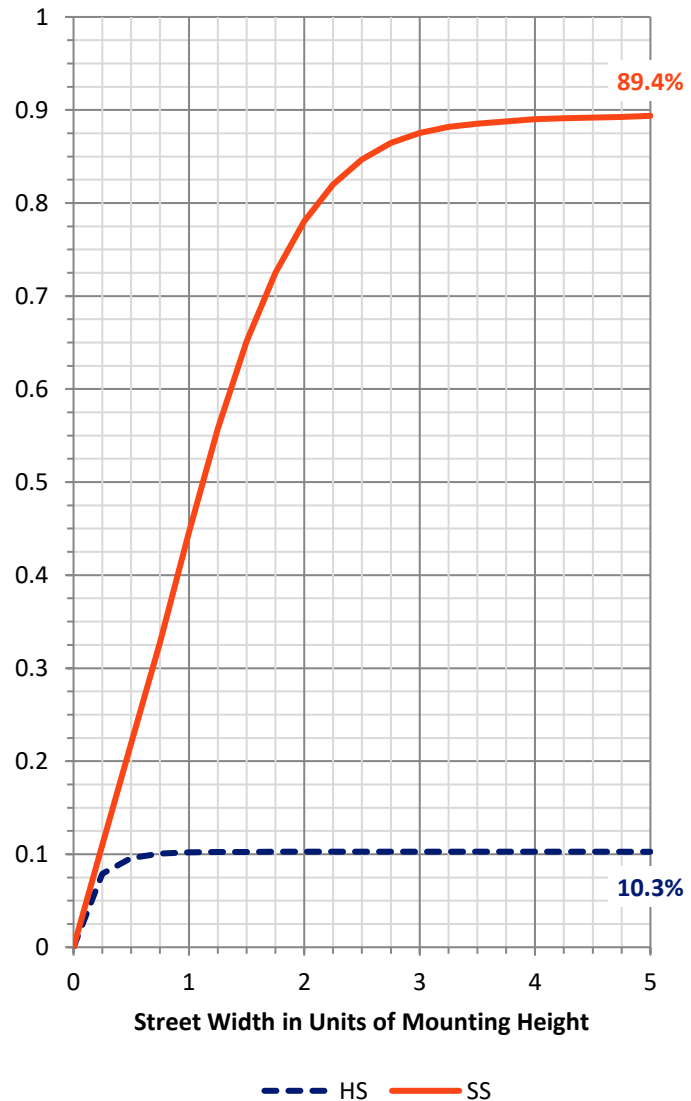
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	345.5	0.0	345.5
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	2988.5	0.0	2988.5
	% Fixture	89.6	0.0	89.6
Total	Lumens	3334.0	0.0	3334.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.4	1.1
10°-20°	94.6	2.8
20°-30°	147.6	4.4
30°-40°	249.5	7.5
40°-50°	484.5	14.5
50°-60°	813.7	24.4
60°-70°	971.0	29.1
70°-80°	511.7	15.3
80°-90°	26.0	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°	3334.0	100.0
0°-180°	3334.0	100.0



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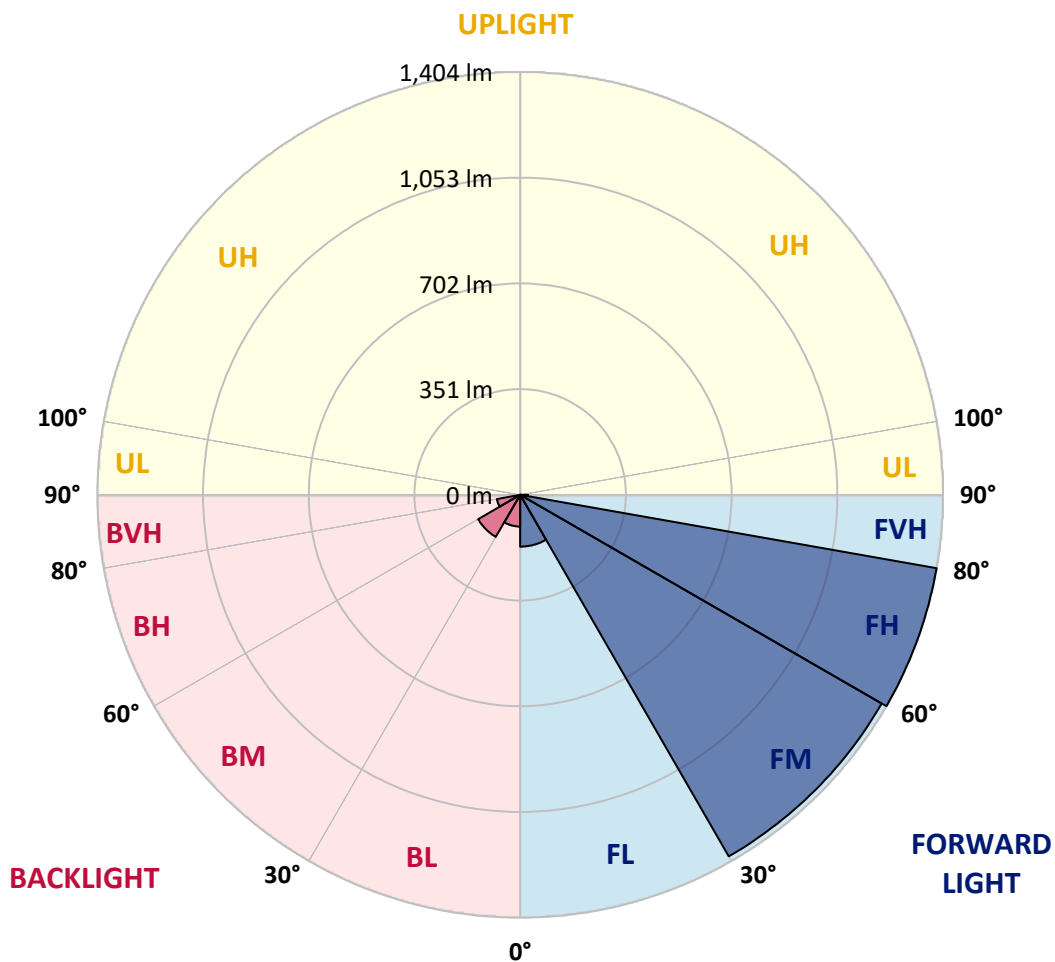
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	172.1	5.2			
FM	(30°-60°)	1386.3	41.6			
FH	(60°-80°)	1404.3	42.1			G1/1800
FVH	(80°-90°)	25.8	0.8			G1/100
BL	(0°-30°)	105.5	3.2	B0/110		
BM	(30°-60°)	161.3	4.8	B0/220		
BH	(60°-80°)	78.5	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°	376.8	376.8	376.8	376.8	376.8	376.8	376.8	376.8	376.8	376.8	376.8
2.5°	371.4	371.4	371.4	372.1	372.9	372.9	374.5	373.7	373.7	373.7	375.2
5°	361.3	362.0	362.8	364.4	367.5	369.8	373.7	373.7	374.5	376.0	376.8
7.5°	347.3	348.0	350.4	353.5	359.7	365.1	371.4	372.9	375.2	379.1	380.7
10°	338.7	340.3	343.4	347.3	354.3	361.3	369.0	371.4	378.3	385.3	389.2
12.5°	336.4	337.2	340.3	346.5	355.0	363.6	373.7	376.0	386.1	397.0	403.2
15°	340.3	341.1	342.6	349.6	359.7	370.6	383.8	386.9	399.3	411.8	419.5
17.5°	347.3	347.3	348.8	355.0	365.9	378.3	395.4	400.1	414.1	428.1	436.6
20°	351.9	351.9	354.3	360.5	372.9	389.2	409.4	415.6	431.2	446.7	454.5
22.5°	356.6	357.4	359.7	366.7	380.7	403.2	426.5	432.7	450.6	466.9	474.7
25°	369.8	369.0	369.8	376.0	392.3	420.3	449.8	457.6	476.2	494.1	498.0
27.5°	406.3	404.8	394.7	390.8	403.2	438.2	479.3	487.1	508.9	526.7	526.7
30°	490.2	487.1	462.3	430.4	420.3	454.5	507.3	518.2	546.2	561.7	557.0
32.5°	596.7	589.7	557.8	503.4	463.0	476.2	536.8	549.3	585.0	598.2	588.1
35°	713.2	712.4	672.8	602.9	545.4	521.3	574.9	589.7	634.7	646.4	630.1
37.5°	836.7	839.8	813.4	717.1	649.5	595.1	625.4	642.5	697.6	711.6	696.1
40°	974.2	973.4	963.3	849.1	774.6	700.0	698.4	714.0	780.8	802.5	780.8
42.5°	1148.2	1146.7	1110.2	1007.6	926.1	836.7	804.9	810.3	884.9	920.6	888.8
45°	1325.4	1314.5	1272.5	1184.0	1111.7	1006.1	945.5	945.5	1009.2	1058.1	1008.4
47.5°	1424.0	1413.2	1396.1	1347.1	1325.4	1207.3	1117.9	1107.1	1156.8	1206.5	1136.6
50°	1553.8	1553.8	1511.1	1492.4	1529.7	1446.6	1308.3	1297.4	1321.5	1361.1	1269.4
52.5°	1656.3	1637.7	1607.4	1623.7	1730.1	1692.1	1498.6	1477.6	1496.3	1506.4	1385.2
55°	1699.1	1681.2	1678.9	1738.7	1903.4	1850.6	1693.6	1675.0	1673.4	1623.7	1486.2
57.5°	1707.6	1692.1	1721.6	1826.5	2072.0	1980.3	1887.8	1873.9	1830.4	1706.1	1589.5
60°	1635.4	1643.1	1714.6	1874.6	2171.4	2092.9	2051.8	2037.0	1936.8	1776.0	1704.5
62.5°	1487.0	1505.6	1639.2	1879.3	2134.9	2138.8	2142.7	2132.6	2019.1	1839.7	1820.3
65°	1311.4	1316.8	1477.6	1814.8	2071.2	2124.8	2209.5	2208.7	2082.1	1911.2	1950.8
67.5°	1080.7	1090.0	1229.0	1597.3	1943.8	2118.6	2297.3	2294.9	2153.5	1992.7	2028.5
70°	804.1	815.7	928.4	1242.3	1659.4	2040.9	2412.2	2413.8	2228.9	2054.9	1974.9
71°	627.0	647.9	766.0	1055.0	1514.2	1962.4	2423.1	2437.1	2237.4	2046.3	1864.5
72.5°	307.6	332.5	480.9	742.7	1246.1	1786.9	2351.7	2378.8	2183.8	1939.9	1594.2
75°	80.0	84.7	143.7	303.8	668.1	1184.0	1896.4	1965.5	1785.3	1476.9	974.2
77.5°	50.5	52.1	67.6	118.1	250.2	449.8	1114.1	1148.2	1020.1	748.1	343.4
80°	35.7	36.5	42.7	76.1	146.1	131.3	400.9	415.6	369.0	198.1	61.4
82.5°	21.8	21.8	31.1	48.9	90.1	71.5	105.7	112.6	99.4	55.2	20.2
85°	12.4	13.2	19.4	33.4	42.7	35.0	39.6	42.0	42.7	36.5	8.5
87.5°	10.1	10.9	17.1	28.0	23.3	17.1	17.1	17.9	18.6	21.8	3.9
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°	376.8	376.8	376.8	376.8	376.8	376.8	376.8	376.8	376.8	376.8	376.8
2.5°	375.2	375.2	376.0	375.2	375.2	375.2	376.0	376.0	376.0	377.6	378.3
5°	376.8	376.8	376.8	376.0	375.2	375.2	376.8	377.6	377.6	379.9	379.9
7.5°	380.7	380.7	379.1	377.6	376.0	373.7	374.5	375.2	374.5	375.2	375.2
10°	389.2	389.2	386.9	383.8	379.1	372.1	362.8	351.2	340.3	336.4	334.8
12.5°	403.2	402.4	397.8	392.3	382.2	358.1	323.2	282.0	247.8	238.5	235.4
15°	418.7	417.2	411.8	402.4	375.2	311.5	238.5	185.7	153.0	145.3	143.7
17.5°	435.1	432.7	425.0	406.3	343.4	231.5	153.8	116.5	98.7	97.1	97.9
20°	452.2	449.0	438.2	398.5	277.4	154.6	99.4	90.1	88.6	88.6	89.3
22.5°	471.6	467.7	452.9	370.6	202.0	102.5	85.5	84.7	83.9	83.1	83.1
25°	494.1	489.4	466.9	320.1	139.1	83.9	81.6	79.2	77.7	76.1	75.4
27.5°	521.3	515.1	477.8	257.9	95.6	78.5	76.9	73.0	69.9	66.8	66.8
30°	548.5	540.7	474.7	194.2	77.7	73.0	69.9	65.3	60.6	57.5	56.7
32.5°	577.2	569.5	454.5	130.5	70.7	66.8	62.9	55.9	50.5	46.6	45.8
35°	620.0	613.7	414.9	86.2	63.7	59.0	53.6	46.6	39.6	35.7	35.0
37.5°	683.7	675.9	365.9	66.0	55.9	48.9	44.3	36.5	29.5	25.6	24.9
40°	769.1	745.8	307.6	58.3	48.9	40.4	34.2	26.4	21.0	18.6	18.6
42.5°	868.6	813.4	244.7	52.8	43.5	33.4	24.9	17.9	14.8	14.0	14.0
45°	974.2	876.3	181.8	48.9	38.1	26.4	17.9	12.4	10.9	10.1	10.1
47.5°	1083.0	927.6	126.6	44.3	31.9	20.2	12.4	9.3	7.8	7.0	7.0
50°	1184.8	961.0	89.3	39.6	27.2	14.8	9.3	7.0	5.4	5.4	5.4
52.5°	1255.5	957.9	64.5	34.2	21.0	10.1	6.2	4.7	4.7	4.7	4.7
55°	1317.6	946.3	50.5	29.5	16.3	7.0	4.7	3.9	3.9	3.1	3.1
57.5°	1370.4	927.6	42.7	24.1	11.7	5.4	3.1	3.1	2.3	2.3	2.3
60°	1415.5	904.3	35.7	20.2	7.8	3.9	2.3	1.6	1.6	0.8	1.6
62.5°	1476.9	889.5	31.1	15.5	5.4	2.3	1.6	0.8	0.8	0.0	0.0
65°	1521.9	861.6	26.4	10.9	3.1	1.6	0.8	0.8	0.0	0.0	0.0
67.5°	1523.5	811.1	19.4	6.2	2.3	1.6	0.8	0.0	0.0	0.0	0.0
70°	1400.7	691.4	12.4	3.1	1.6	0.8	0.8	0.0	0.0	0.0	0.0
71°	1288.1	612.2	10.1	2.3	1.6	0.8	0.0	0.0	0.0	0.0	0.0
72.5°	1061.2	449.8	7.8	2.3	0.8	0.8	0.0	0.0	0.0	0.0	0.0
75°	585.0	163.1	3.9	1.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	187.2	49.7	2.3	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	31.9	7.8	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	10.9	3.1	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.1	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.6	0.8	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)