

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: P214808

Luminaire Tested: **ARCH-AF16-40-D-U-T3-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214808
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-AF16-40-D-U-T3-7050-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 740mA 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: 3416 lumens
Efficiency: N/A
Efficacy: 81.3 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): 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

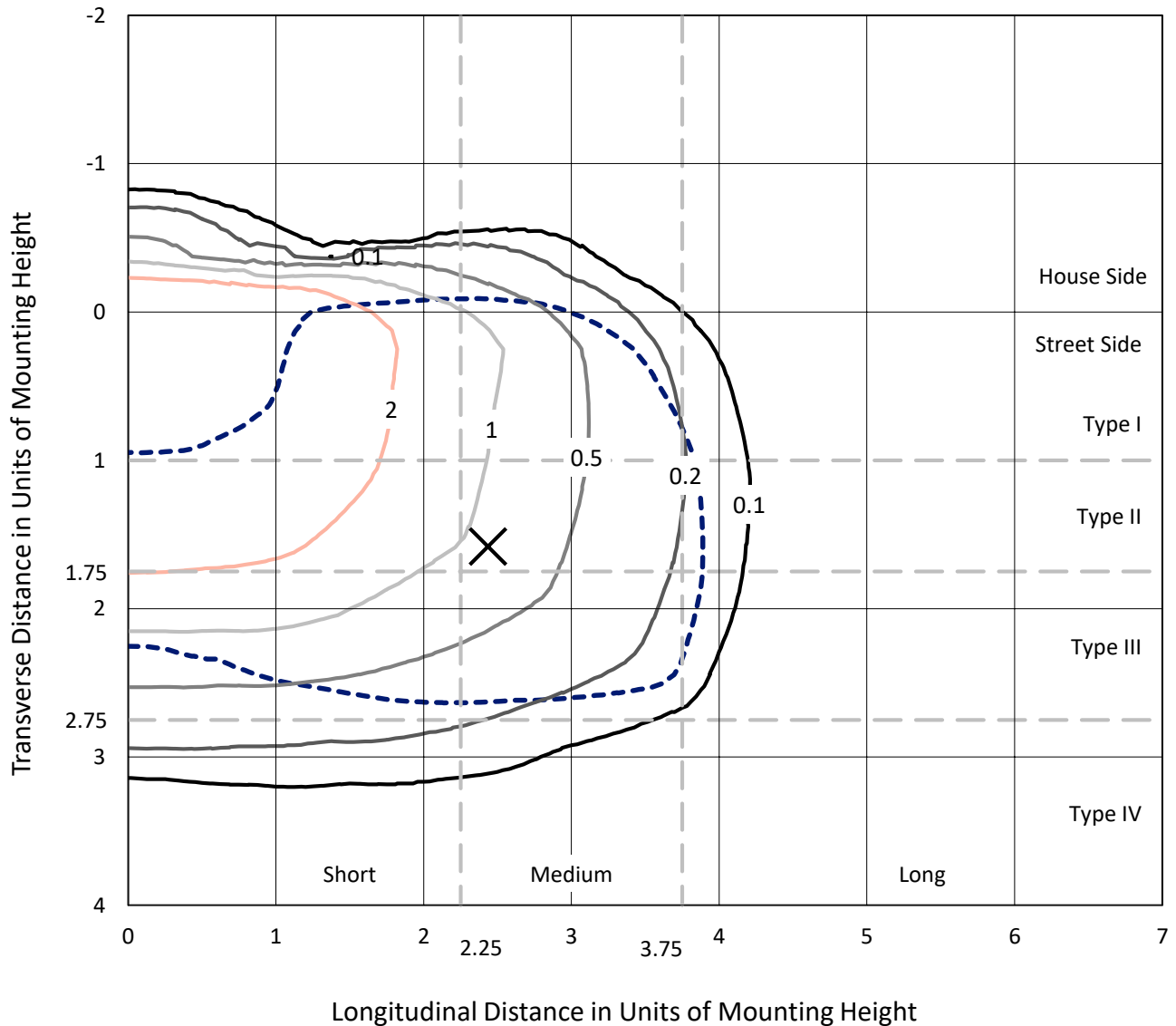


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

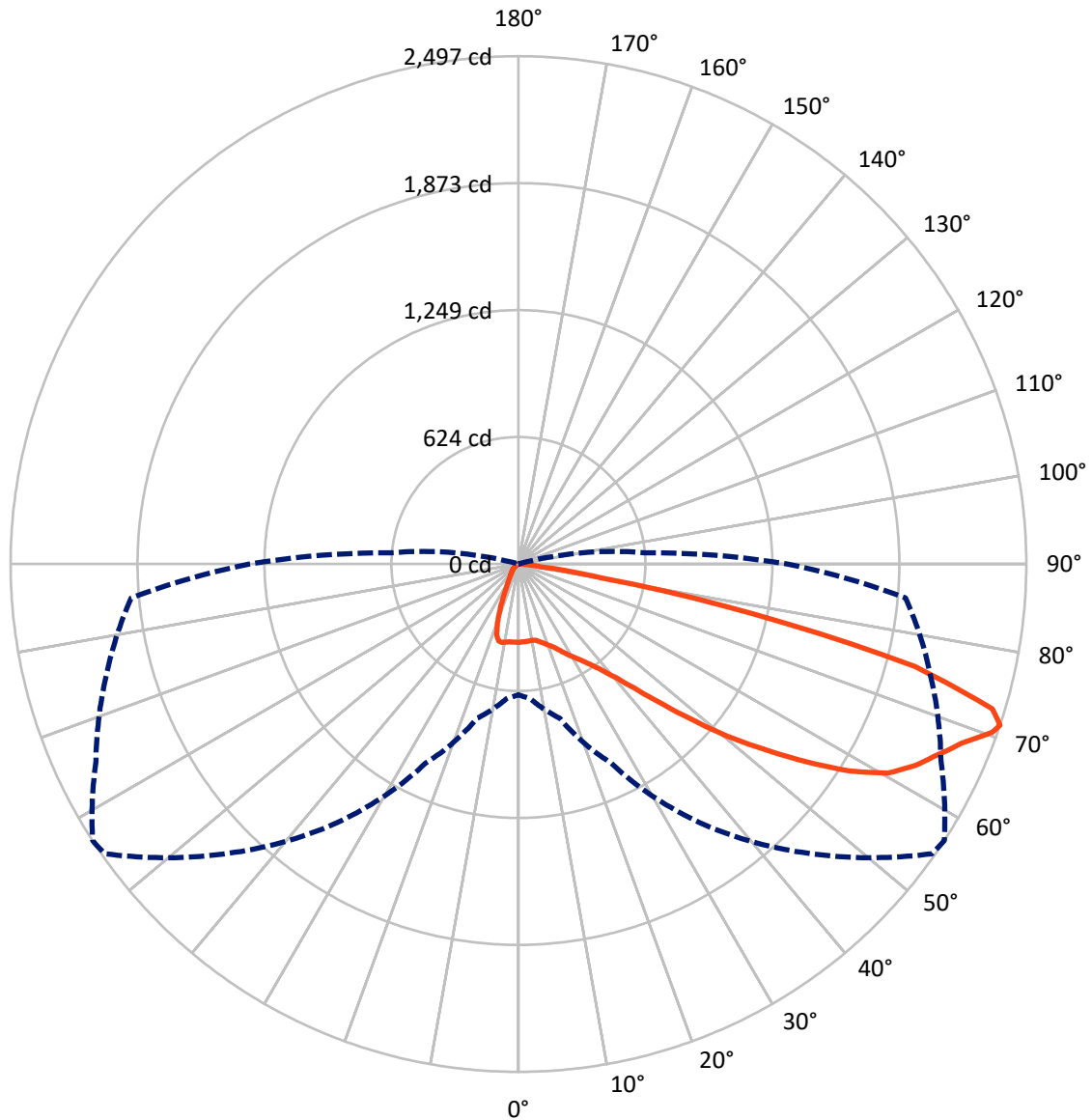


Based on 10 foot mounting height. Maximum calculated value = 4.8 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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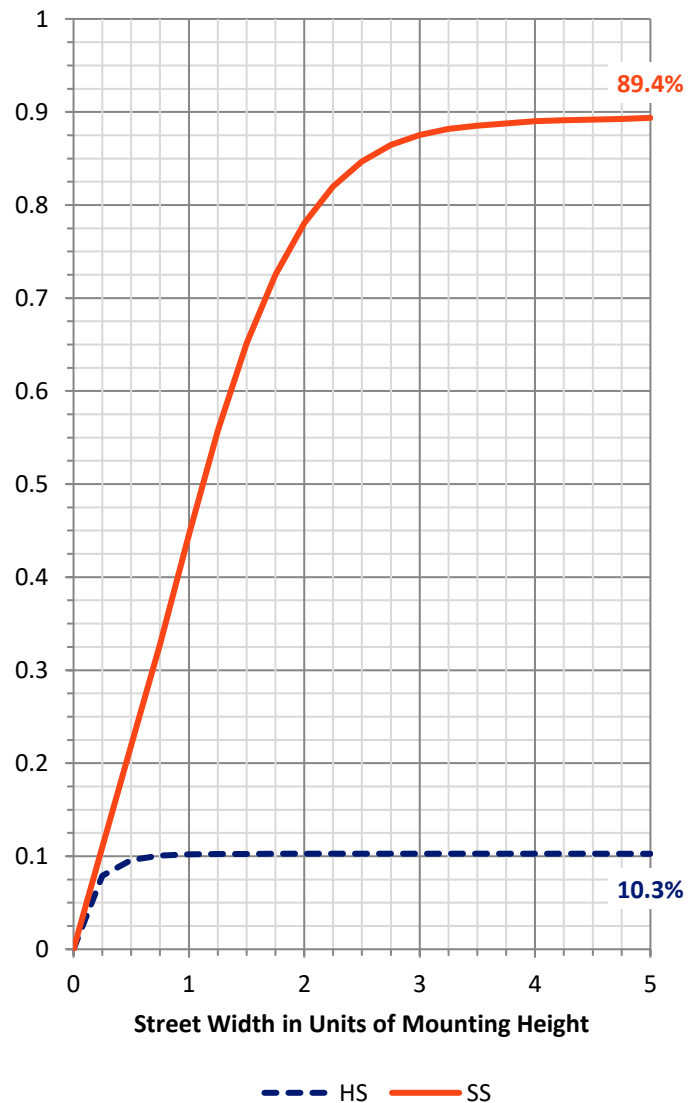
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	354.0	0.0	354.0
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	3062.0	0.0	3062.0
	% Fixture	89.6	0.0	89.6
Total	Lumens	3416.0	0.0	3416.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.3	1.1
10°-20°	96.9	2.8
20°-30°	151.2	4.4
30°-40°	255.6	7.5
40°-50°	496.4	14.5
50°-60°	833.7	24.4
60°-70°	994.9	29.1
70°-80°	524.3	15.3
80°-90°	26.6	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°	3416.0	100.0
0°-180°	3416.0	100.0



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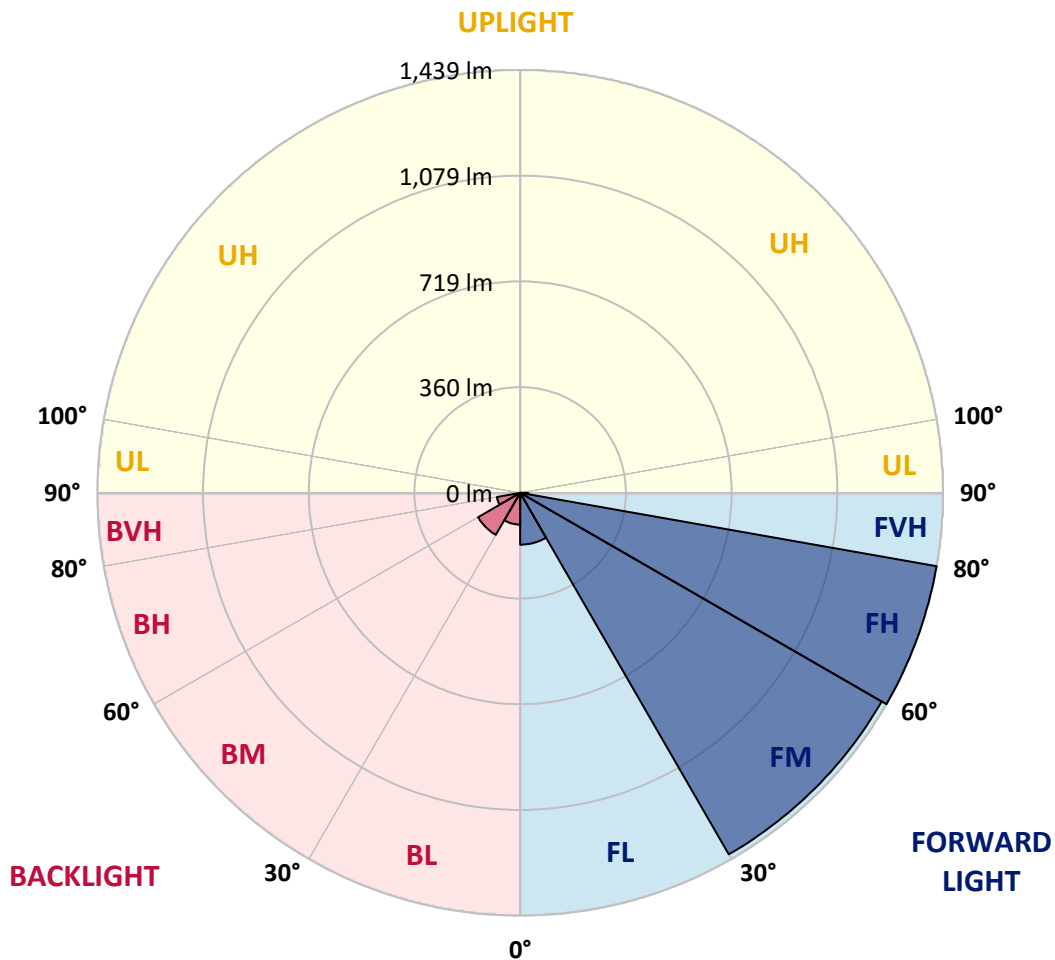
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	176.4	5.2			
FM	(30°-60°)	1420.4	41.6			
FH	(60°-80°)	1438.8	42.1			G1/1800
FVH	(80°-90°)	26.4	0.8			G1/100
BL	(0°-30°)	108.1	3.2	B0/110		
BM	(30°-60°)	165.3	4.8	B0/220		
BH	(60°-80°)	80.4	2.4	B0/110		G0/110
BVH	(80°-90°)	0.3	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°	386.1	386.1	386.1	386.1	386.1	386.1	386.1	386.1	386.1	386.1	386.1
2.5°	380.5	380.5	380.5	381.3	382.1	382.1	383.7	382.9	382.9	382.9	384.5
5°	370.1	370.9	371.7	373.3	376.5	378.9	382.9	382.9	383.7	385.3	386.1
7.5°	355.8	356.6	359.0	362.2	368.5	374.1	380.5	382.1	384.5	388.4	390.0
10°	347.1	348.6	351.8	355.8	363.0	370.1	378.1	380.5	387.7	394.8	398.8
12.5°	344.7	345.5	348.6	355.0	363.8	372.5	382.9	385.3	395.6	406.8	413.1
15°	348.6	349.4	351.0	358.2	368.5	379.7	393.2	396.4	409.1	421.9	429.8
17.5°	355.8	355.8	357.4	363.8	374.9	387.7	405.2	409.9	424.3	438.6	447.4
20°	360.6	360.6	363.0	369.3	382.1	398.8	419.5	425.9	441.8	457.7	465.7
22.5°	365.4	366.2	368.5	375.7	390.0	413.1	437.0	443.4	461.7	478.4	486.4
25°	378.9	378.1	378.9	385.3	402.0	430.6	460.9	468.8	487.9	506.3	510.2
27.5°	416.3	414.7	404.4	400.4	413.1	448.9	491.1	499.1	521.4	539.7	539.7
30°	502.3	499.1	473.6	441.0	430.6	465.7	519.8	530.9	559.6	575.5	570.7
32.5°	611.3	604.2	571.5	515.8	474.4	487.9	550.0	562.8	599.4	612.9	602.6
35°	730.7	729.9	689.3	617.7	558.8	534.1	589.0	604.2	650.3	662.3	645.6
37.5°	857.3	860.5	833.4	734.7	665.5	609.7	640.8	658.3	714.8	729.1	713.2
40°	998.2	997.4	987.0	870.0	793.6	717.2	715.6	731.5	800.0	822.3	800.0
42.5°	1176.5	1174.9	1137.5	1032.4	948.8	857.3	824.7	830.2	906.6	943.3	910.6
45°	1358.0	1346.8	1303.8	1213.1	1139.1	1030.8	968.7	968.7	1034.0	1084.2	1033.2
47.5°	1459.1	1447.9	1430.4	1380.3	1358.0	1237.0	1145.4	1134.3	1185.2	1236.2	1164.5
50°	1592.0	1592.0	1548.2	1529.1	1567.3	1482.2	1340.5	1329.3	1354.0	1394.6	1300.7
52.5°	1697.1	1678.0	1646.9	1663.6	1772.7	1733.7	1535.5	1514.0	1533.1	1543.4	1419.3
55°	1740.9	1722.5	1720.2	1781.4	1950.2	1896.1	1735.3	1716.2	1714.6	1663.6	1522.7
57.5°	1749.6	1733.7	1763.9	1871.4	2122.9	2029.0	1934.3	1920.0	1875.4	1748.0	1628.6
60°	1675.6	1683.5	1756.8	1920.7	2224.8	2144.4	2102.2	2087.1	1984.4	1819.7	1746.4
62.5°	1523.5	1542.6	1679.6	1925.5	2187.4	2191.4	2195.4	2185.0	2068.8	1884.9	1865.0
65°	1343.6	1349.2	1514.0	1859.5	2122.1	2177.1	2263.8	2263.0	2133.3	1958.2	1998.8
67.5°	1107.2	1116.8	1259.3	1636.6	1991.6	2170.7	2353.8	2351.4	2206.5	2041.7	2078.4
70°	823.9	835.8	951.2	1272.8	1700.3	2091.1	2471.6	2473.2	2283.7	2105.4	2023.4
71°	642.4	663.9	784.9	1081.0	1551.4	2010.7	2482.7	2497.1	2292.5	2096.7	1910.4
72.5°	315.2	340.7	492.7	761.0	1276.8	1830.8	2409.5	2437.4	2237.6	1987.6	1633.4
75°	82.0	86.8	147.3	311.2	684.6	1213.1	1943.0	2013.9	1829.2	1513.2	998.2
77.5°	51.7	53.3	69.3	121.0	256.3	460.9	1141.5	1176.5	1045.1	766.5	351.8
80°	36.6	37.4	43.8	78.0	149.6	134.5	410.7	425.9	378.1	203.0	62.9
82.5°	22.3	22.3	31.8	50.1	92.3	73.2	108.3	115.4	101.9	56.5	20.7
85°	12.7	13.5	19.9	34.2	43.8	35.8	40.6	43.0	43.8	37.4	8.8
87.5°	10.3	11.1	17.5	28.7	23.9	17.5	17.5	18.3	19.1	22.3	4.0
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°	386.1	386.1	386.1	386.1	386.1	386.1	386.1	386.1	386.1	386.1	386.1
2.5°	384.5	384.5	385.3	384.5	384.5	384.5	385.3	385.3	385.3	386.9	387.7
5°	386.1	386.1	386.1	385.3	384.5	384.5	386.1	386.9	386.9	389.2	389.2
7.5°	390.0	390.0	388.4	386.9	385.3	382.9	383.7	384.5	383.7	384.5	384.5
10°	398.8	398.8	396.4	393.2	388.4	381.3	371.7	359.8	348.6	344.7	343.1
12.5°	413.1	412.3	407.6	402.0	391.6	367.0	331.1	288.9	253.9	244.4	241.2
15°	429.0	427.5	421.9	412.3	384.5	319.2	244.4	190.2	156.8	148.9	147.3
17.5°	445.8	443.4	435.4	416.3	351.8	237.2	157.6	119.4	101.1	99.5	100.3
20°	463.3	460.1	448.9	408.3	284.2	158.4	101.9	92.3	90.7	90.7	91.5
22.5°	483.2	479.2	464.1	379.7	207.0	105.1	87.6	86.8	86.0	85.2	85.2
25°	506.3	501.5	478.4	328.0	142.5	86.0	83.6	81.2	79.6	78.0	77.2
27.5°	534.1	527.7	489.5	264.3	97.9	80.4	78.8	74.8	71.6	68.5	68.5
30°	562.0	554.0	486.4	199.0	79.6	74.8	71.6	66.9	62.1	58.9	58.1
32.5°	591.4	583.5	465.7	133.7	72.4	68.5	64.5	57.3	51.7	47.8	47.0
35°	635.2	628.8	425.1	88.4	65.3	60.5	54.9	47.8	40.6	36.6	35.8
37.5°	700.5	692.5	374.9	67.7	57.3	50.1	45.4	37.4	30.2	26.3	25.5
40°	788.0	764.2	315.2	59.7	50.1	41.4	35.0	27.1	21.5	19.1	19.1
42.5°	889.9	833.4	250.7	54.1	44.6	34.2	25.5	18.3	15.1	14.3	14.3
45°	998.2	897.9	186.3	50.1	39.0	27.1	18.3	12.7	11.1	10.3	10.3
47.5°	1109.6	950.4	129.7	45.4	32.6	20.7	12.7	9.6	8.0	7.2	7.2
50°	1213.9	984.7	91.5	40.6	27.9	15.1	9.6	7.2	5.6	5.6	5.6
52.5°	1286.3	981.5	66.1	35.0	21.5	10.3	6.4	4.8	4.8	4.8	4.8
55°	1350.0	969.5	51.7	30.2	16.7	7.2	4.8	4.0	4.0	3.2	3.2
57.5°	1404.1	950.4	43.8	24.7	11.9	5.6	3.2	3.2	2.4	2.4	2.4
60°	1450.3	926.5	36.6	20.7	8.0	4.0	2.4	1.6	1.6	0.8	1.6
62.5°	1513.2	911.4	31.8	15.9	5.6	2.4	1.6	0.8	0.8	0.0	0.0
65°	1559.4	882.8	27.1	11.1	3.2	1.6	0.8	0.8	0.0	0.0	0.0
67.5°	1561.0	831.0	19.9	6.4	2.4	1.6	0.8	0.0	0.0	0.0	0.0
70°	1435.2	708.4	12.7	3.2	1.6	0.8	0.8	0.0	0.0	0.0	0.0
71°	1319.8	627.2	10.3	2.4	1.6	0.8	0.0	0.0	0.0	0.0	0.0
72.5°	1087.3	460.9	8.0	2.4	0.8	0.8	0.0	0.0	0.0	0.0	0.0
75°	599.4	167.2	4.0	1.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	191.8	50.9	2.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	32.6	8.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	11.1	3.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.2	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)