

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: P234732

Luminaire Tested: **ARCH-AF24-50-D-U-T3-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234732
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-AF24-50-D-U-T3-8027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 670mA 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: 3690 lumens
Efficiency: N/A
Efficacy: 68.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 54
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

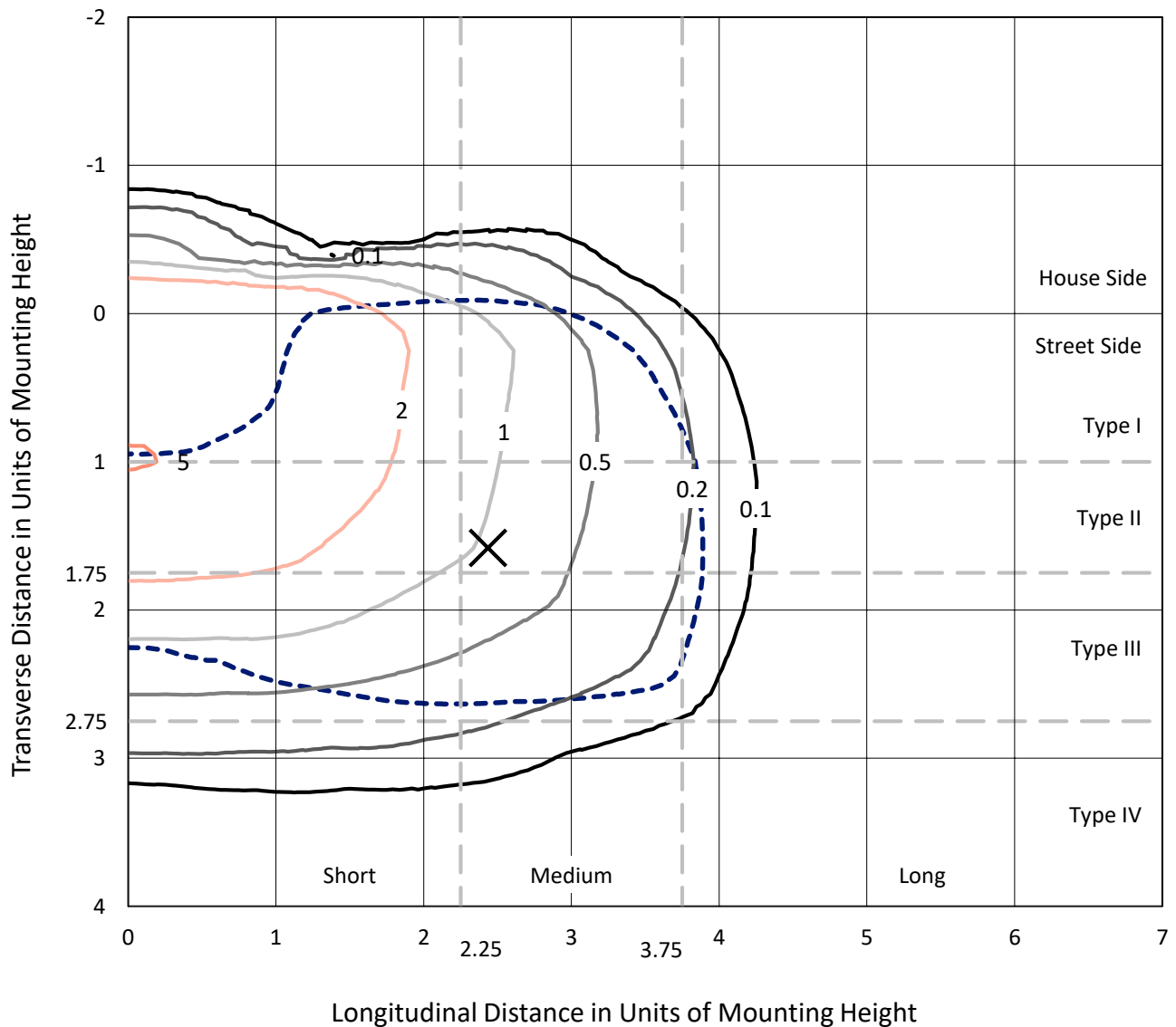


REPORT NUMBER: P234732

CATALOG NUMBER: ARCH-AF24-50-D-U-T3-8027-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

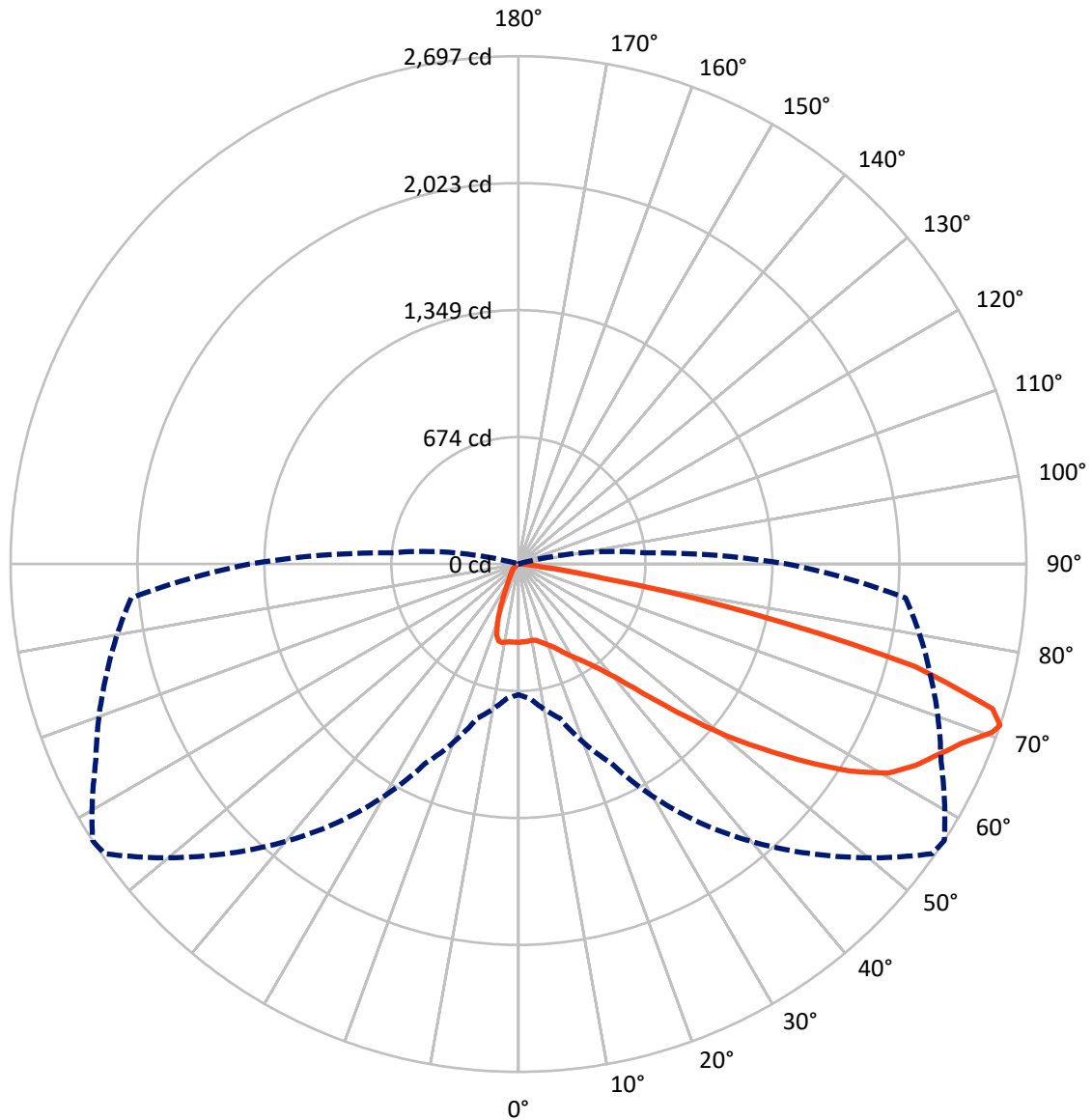


Based on 10 foot mounting height. Maximum calculated value = 5.2 fc
 Type III - Medium - Semi-Cutoff

REPORT NUMBER: P234732

CATALOG NUMBER: ARCH-AF24-50-D-U-T3-8027-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P234732

CATALOG NUMBER: ARCH-AF24-50-D-U-T3-8027-HSS

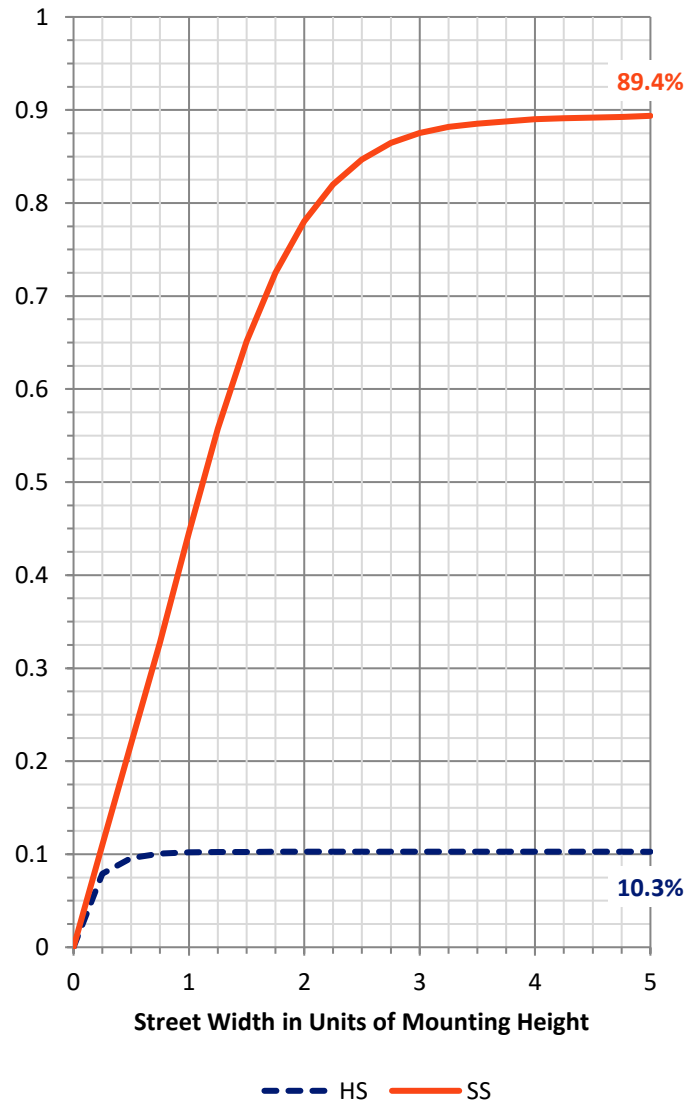
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	382.4	0.0	382.4
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	3307.6	0.0	3307.6
	% Fixture	89.6	0.0	89.6
Total	Lumens	3690.0	0.0	3690.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.2	1.1
10°-20°	104.7	2.8
20°-30°	163.4	4.4
30°-40°	276.1	7.5
40°-50°	536.3	14.5
50°-60°	900.5	24.4
60°-70°	1074.7	29.1
70°-80°	566.4	15.3
80°-90°	28.8	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°	3690.0	100.0
0°-180°	3690.0	100.0



REPORT NUMBER: P234732

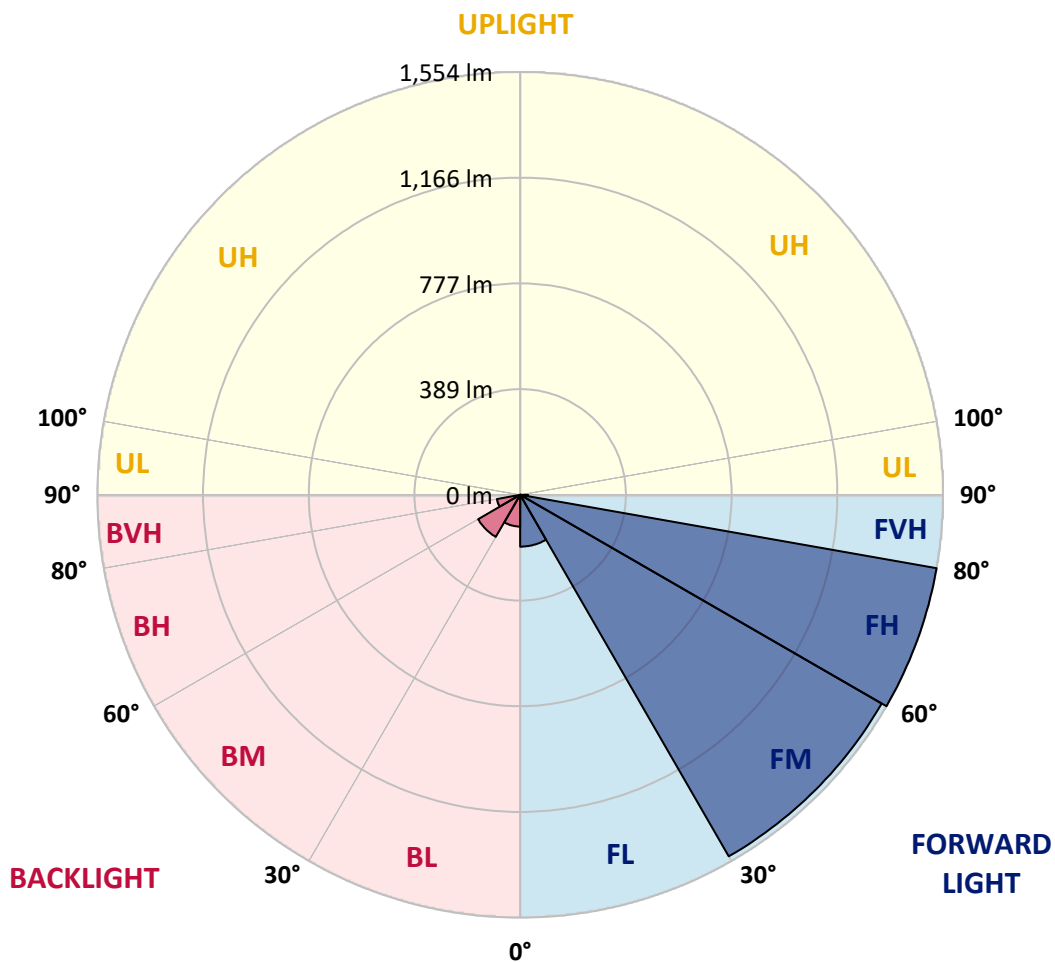
CATALOG NUMBER: ARCH-AF24-50-D-U-T3-8027-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	190.5	5.2			
FM	(30°-60°)	1534.3	41.6			
FH	(60°-80°)	1554.3	42.1			G1/1800
FVH	(80°-90°)	28.5	0.8			G1/100
BL	(0°-30°)	116.7	3.2	B1/500		
BM	(30°-60°)	178.6	4.8	B0/220		
BH	(60°-80°)	86.8	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: B1-U0-G1

Type III Medium





REPORT NUMBER: P234732

CATALOG NUMBER: ARCH-AF24-50-D-U-T3-8027-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	417.0	417.0	417.0	417.0	417.0	417.0	417.0	417.0	417.0	417.0	417.0
2.5°	411.0	411.0	411.0	411.9	412.7	412.7	414.4	413.6	413.6	413.6	415.3
5°	399.8	400.7	401.5	403.3	406.7	409.3	413.6	413.6	414.4	416.2	417.0
7.5°	384.4	385.2	387.8	391.2	398.1	404.1	411.0	412.7	415.3	419.6	421.3
10°	374.9	376.6	380.1	384.4	392.1	399.8	408.4	411.0	418.7	426.5	430.8
12.5°	372.3	373.2	376.6	383.5	393.0	402.4	413.6	416.2	427.3	439.4	446.3
15°	376.6	377.5	379.2	386.9	398.1	410.1	424.8	428.2	442.0	455.7	464.3
17.5°	384.4	384.4	386.1	393.0	405.0	418.7	437.7	442.8	458.3	473.8	483.2
20°	389.5	389.5	392.1	399.0	412.7	430.8	453.1	460.0	477.2	494.4	503.0
22.5°	394.7	395.5	398.1	405.8	421.3	446.3	472.1	478.9	498.7	516.8	525.4
25°	409.3	408.4	409.3	416.2	434.2	465.2	497.9	506.5	527.1	546.9	551.2
27.5°	449.7	448.0	436.8	432.5	446.3	485.0	530.5	539.1	563.2	583.0	583.0
30°	542.6	539.1	511.6	476.4	465.2	503.0	561.5	573.5	604.5	621.7	616.5
32.5°	660.4	652.6	617.4	557.2	512.5	527.1	594.2	607.9	647.5	662.1	650.9
35°	789.3	788.5	744.6	667.2	603.6	577.0	636.3	652.6	702.5	715.4	697.3
37.5°	926.1	929.5	900.3	793.6	718.8	658.6	692.2	711.1	772.1	787.6	770.4
40°	1078.2	1077.4	1066.2	939.8	857.3	774.7	773.0	790.2	864.1	888.2	864.1
42.5°	1270.9	1269.1	1228.7	1115.2	1024.9	926.1	890.8	896.8	979.4	1018.9	983.7
45°	1466.9	1454.9	1408.4	1310.4	1230.4	1113.5	1046.4	1046.4	1116.9	1171.1	1116.1
47.5°	1576.1	1564.1	1545.1	1491.0	1466.9	1336.2	1237.3	1225.3	1280.3	1335.3	1258.0
50°	1719.7	1719.7	1672.4	1651.8	1693.0	1601.0	1448.0	1435.9	1462.6	1506.5	1405.0
52.5°	1833.2	1812.6	1779.0	1797.1	1914.9	1872.7	1658.6	1635.4	1656.1	1667.2	1533.1
55°	1880.5	1860.7	1858.1	1924.3	2106.6	2048.2	1874.5	1853.8	1852.1	1797.1	1644.9
57.5°	1889.9	1872.7	1905.4	2021.5	2293.2	2191.8	2089.4	2074.0	2025.8	1888.2	1759.2
60°	1810.0	1818.6	1897.7	2074.8	2403.3	2316.4	2270.9	2254.5	2143.6	1965.6	1886.5
62.5°	1645.7	1666.4	1814.3	2080.0	2362.9	2367.2	2371.5	2360.3	2234.7	2036.1	2014.6
65°	1451.4	1457.4	1635.4	2008.6	2292.4	2351.7	2445.4	2444.5	2304.4	2115.2	2159.1
67.5°	1196.0	1206.4	1360.3	1767.8	2151.3	2344.8	2542.6	2540.0	2383.5	2205.5	2245.1
70°	889.9	902.8	1027.5	1374.9	1836.6	2258.8	2669.8	2671.5	2466.9	2274.3	2185.7
71°	693.9	717.1	847.8	1167.7	1675.8	2172.0	2681.9	2697.3	2476.4	2264.8	2063.6
72.5°	340.5	368.0	532.2	822.0	1379.2	1977.6	2602.8	2632.9	2417.0	2147.0	1764.4
75°	88.6	93.7	159.1	336.2	739.5	1310.4	2098.9	2175.4	1975.9	1634.6	1078.2
77.5°	55.9	57.6	74.8	130.7	276.9	497.9	1233.0	1270.9	1129.0	828.0	380.1
80°	39.6	40.4	47.3	84.3	161.7	145.3	443.7	460.0	408.4	219.3	67.9
82.5°	24.1	24.1	34.4	54.2	99.7	79.1	116.9	124.7	110.1	61.0	22.4
85°	13.8	14.6	21.5	37.0	47.3	38.7	43.9	46.4	47.3	40.4	9.5
87.5°	11.2	12.0	18.9	31.0	25.8	18.9	18.9	19.8	20.6	24.1	4.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P234732

CATALOG NUMBER: ARCH-AF24-50-D-U-T3-8027-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	417.0	417.0	417.0	417.0	417.0	417.0	417.0	417.0	417.0	417.0	417.0
2.5°	415.3	415.3	416.2	415.3	415.3	415.3	416.2	416.2	416.2	417.9	418.7
5°	417.0	417.0	417.0	416.2	415.3	415.3	417.0	417.9	417.9	420.5	420.5
7.5°	421.3	421.3	419.6	417.9	416.2	413.6	414.4	415.3	414.4	415.3	415.3
10°	430.8	430.8	428.2	424.8	419.6	411.9	401.5	388.7	376.6	372.3	370.6
12.5°	446.3	445.4	440.2	434.2	423.0	396.4	357.7	312.1	274.3	264.0	260.5
15°	463.5	461.7	455.7	445.4	415.3	344.8	264.0	205.5	169.4	160.8	159.1
17.5°	481.5	478.9	470.3	449.7	380.1	256.2	170.2	129.0	109.2	107.5	108.3
20°	500.4	497.0	485.0	441.1	307.0	171.1	110.1	99.7	98.0	98.0	98.9
22.5°	521.9	517.6	501.3	410.1	223.6	113.5	94.6	93.7	92.9	92.0	92.0
25°	546.9	541.7	516.8	354.3	153.9	92.9	90.3	87.7	86.0	84.3	83.4
27.5°	577.0	570.1	528.8	285.5	105.8	86.8	85.1	80.8	77.4	73.9	73.9
30°	607.1	598.5	525.4	215.0	86.0	80.8	77.4	72.2	67.1	63.6	62.8
32.5°	638.9	630.3	503.0	144.5	78.2	73.9	69.6	61.9	55.9	51.6	50.7
35°	686.2	679.3	459.2	95.4	70.5	65.3	59.3	51.6	43.9	39.6	38.7
37.5°	756.7	748.1	405.0	73.1	61.9	54.2	49.0	40.4	32.7	28.4	27.5
40°	851.2	825.5	340.5	64.5	54.2	44.7	37.8	29.2	23.2	20.6	20.6
42.5°	961.3	900.3	270.9	58.5	48.2	37.0	27.5	19.8	16.3	15.5	15.5
45°	1078.2	969.9	201.2	54.2	42.1	29.2	19.8	13.8	12.0	11.2	11.2
47.5°	1198.6	1026.7	140.2	49.0	35.3	22.4	13.8	10.3	8.6	7.7	7.7
50°	1311.3	1063.6	98.9	43.9	30.1	16.3	10.3	7.7	6.0	6.0	6.0
52.5°	1389.5	1060.2	71.4	37.8	23.2	11.2	6.9	5.2	5.2	5.2	5.2
55°	1458.3	1047.3	55.9	32.7	18.1	7.7	5.2	4.3	4.3	3.4	3.4
57.5°	1516.8	1026.7	47.3	26.7	12.9	6.0	3.4	3.4	2.6	2.6	2.6
60°	1566.6	1000.9	39.6	22.4	8.6	4.3	2.6	1.7	1.7	0.9	1.7
62.5°	1634.6	984.5	34.4	17.2	6.0	2.6	1.7	0.9	0.9	0.0	0.0
65°	1684.4	953.6	29.2	12.0	3.4	1.7	0.9	0.9	0.0	0.0	0.0
67.5°	1686.2	897.7	21.5	6.9	2.6	1.7	0.9	0.0	0.0	0.0	0.0
70°	1550.3	765.3	13.8	3.4	1.7	0.9	0.9	0.0	0.0	0.0	0.0
71°	1425.6	677.6	11.2	2.6	1.7	0.9	0.0	0.0	0.0	0.0	0.0
72.5°	1174.6	497.9	8.6	2.6	0.9	0.9	0.0	0.0	0.0	0.0	0.0
75°	647.5	180.6	4.3	1.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	207.2	55.0	2.6	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	35.3	8.6	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	12.0	3.4	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.4	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.7	0.9	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)