

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: P234844

Luminaire Tested: **ARCH-M-AF48-40-D-U-T4W-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234844
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-M-AF48-40-D-U-T4W-8027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 240mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3132 lumens
Efficiency: N/A
Efficacy: 82.4 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B0 - U0 - G1

Input Watts (W): 38
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

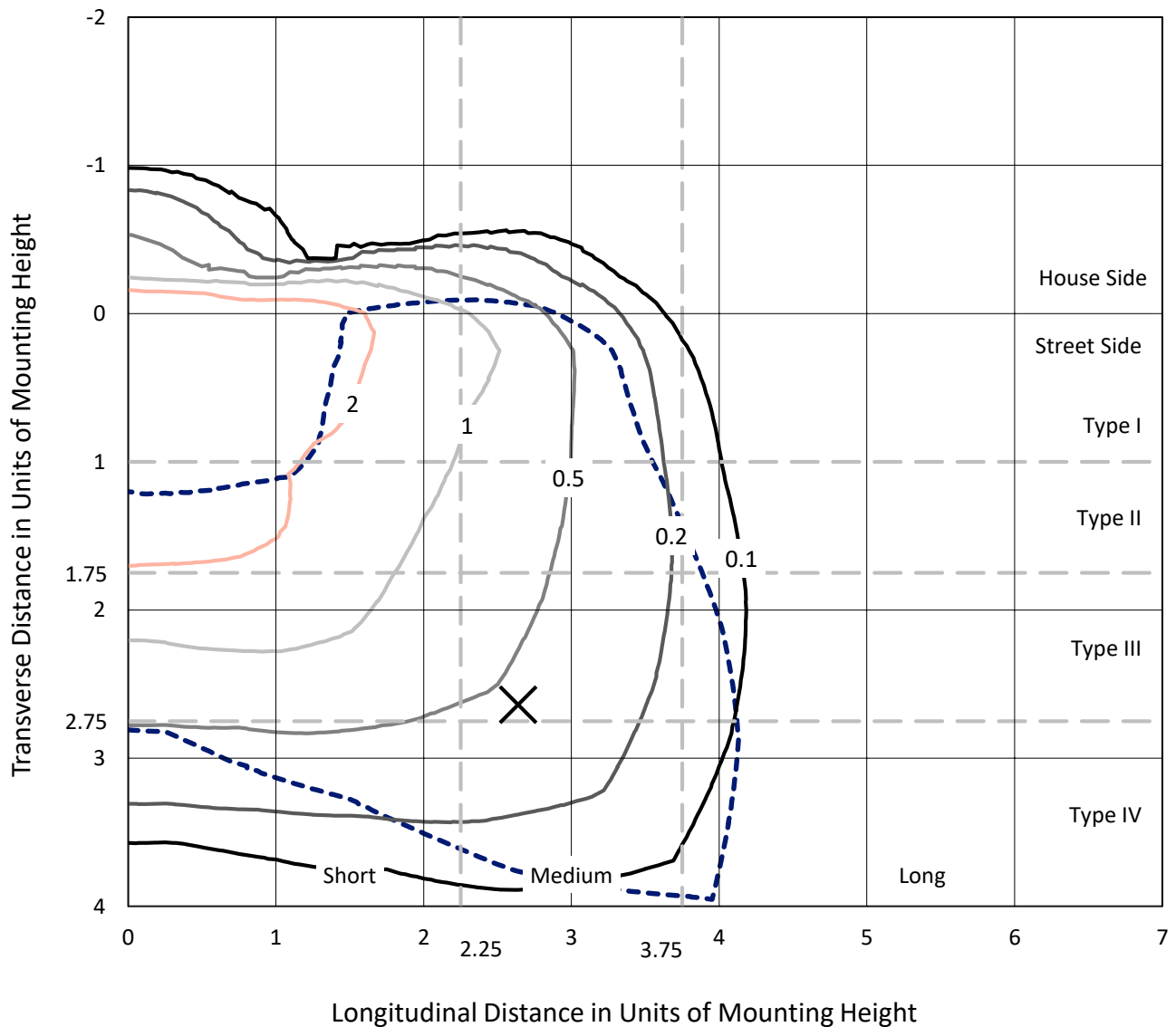


REPORT NUMBER: P234844

CATALOG NUMBER: ARCH-M-AF48-40-D-U-T4W-8027-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

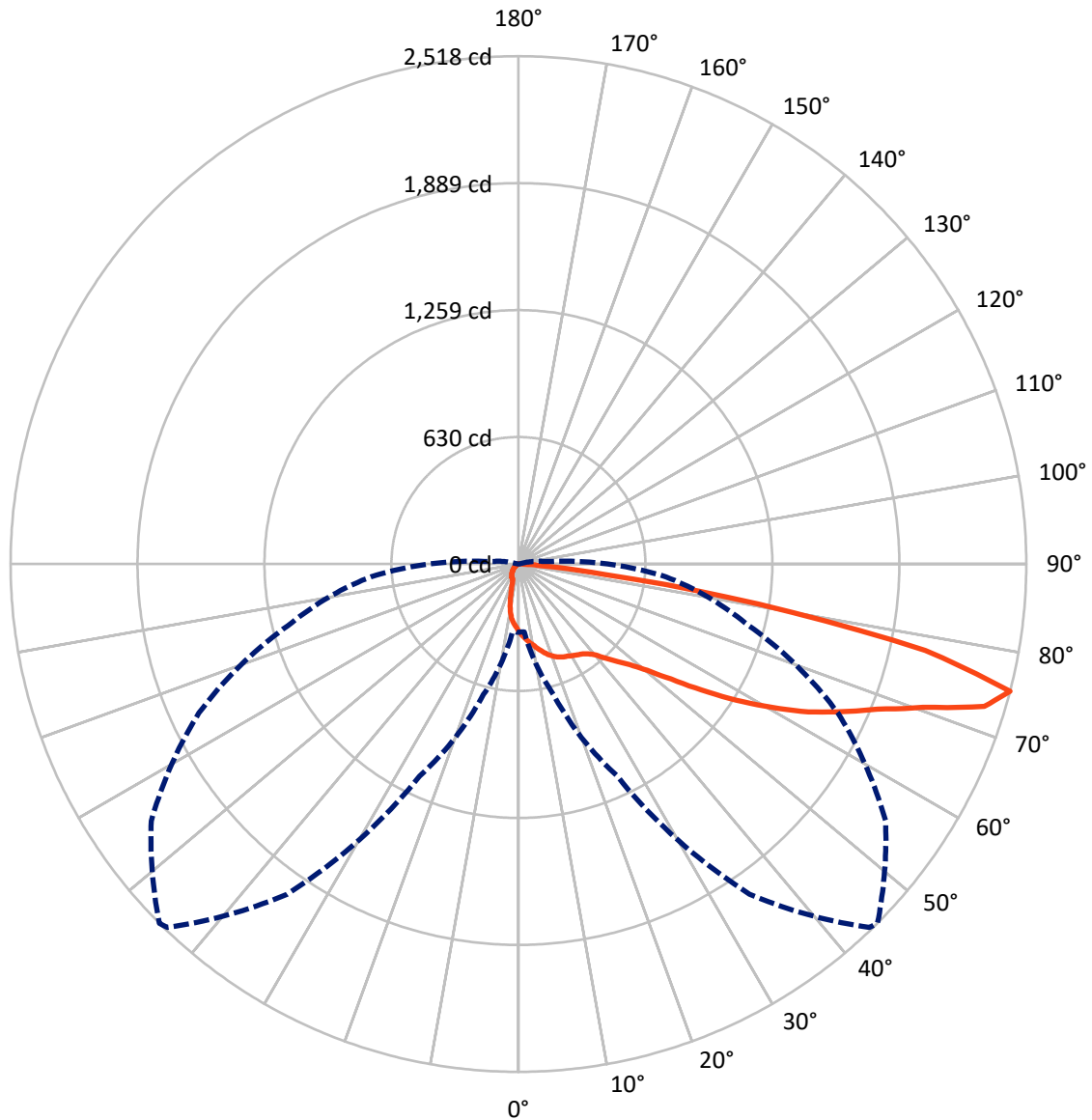


Based on 10 foot mounting height. Maximum calculated value = 4.5 fc
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P234844

CATALOG NUMBER: ARCH-M-AF48-40-D-U-T4W-8027-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P234844

CATALOG NUMBER: ARCH-M-AF48-40-D-U-T4W-8027-HSS

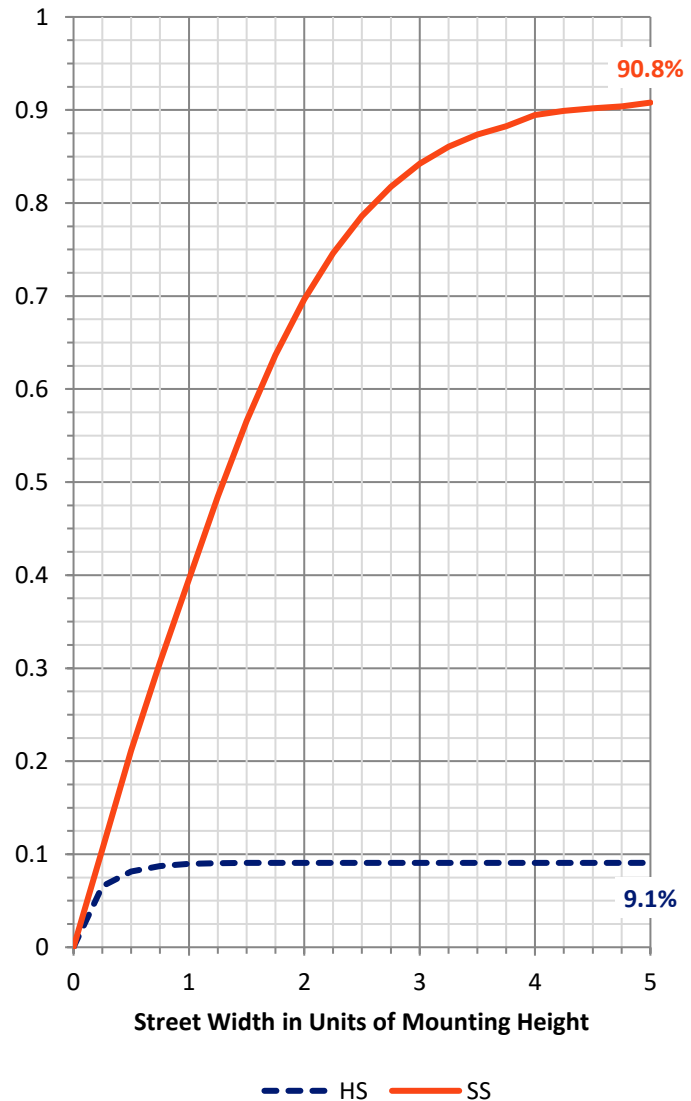
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	286.5	0.0	286.5
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	2845.5	0.0	2845.5
	% Fixture	90.9	0.0	90.9
Total	Lumens	3132.0	0.0	3132.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.6	1.0
10°-20°	89.6	2.9
20°-30°	148.3	4.7
30°-40°	214.7	6.9
40°-50°	351.5	11.2
50°-60°	626.3	20.0
60°-70°	920.8	29.4
70°-80°	694.6	22.2
80°-90°	54.5	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°	3132.0	100.0
0°-180°	3132.0	100.0



REPORT NUMBER: P234844

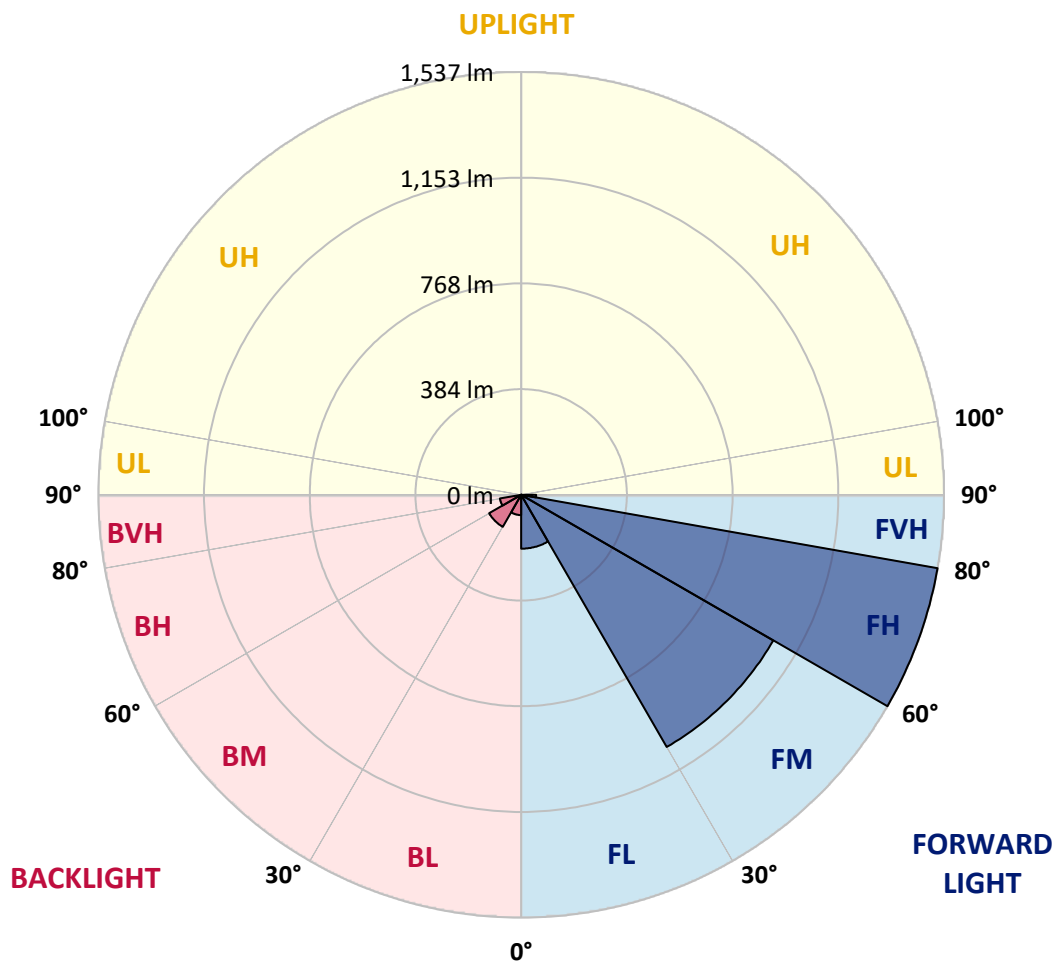
CATALOG NUMBER: ARCH-M-AF48-40-D-U-T4W-8027-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	195.9	6.3			
FM	(30°-60°)	1058.3	33.8			
FH	(60°-80°)	1537.0	49.1			G1/1800
FVH	(80°-90°)	54.3	1.7			G1/100
BL	(0°-30°)	73.6	2.4	B0/110		
BM	(30°-60°)	134.2	4.3	B0/220		
BH	(60°-80°)	78.5	2.5	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 IV Medium





REPORT NUMBER: P234844

CATALOG NUMBER: ARCH-M-AF48-40-D-U-T4W-8027-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	335.0	335.0	335.0	335.0	335.0	335.0	335.0	335.0	335.0	335.0	335.0
2.5°	363.9	363.9	363.1	362.4	358.7	355.0	354.3	352.0	345.4	340.9	336.5
5°	394.3	395.0	393.5	389.8	381.7	373.5	372.8	366.9	354.3	345.4	335.7
7.5°	423.2	424.7	421.0	414.3	404.6	392.8	392.1	380.9	364.6	352.0	337.9
10°	447.6	447.6	442.4	434.3	423.9	411.3	409.8	397.2	378.7	363.1	344.6
12.5°	474.3	473.6	466.2	455.0	443.2	431.3	430.6	415.0	397.2	377.2	354.3
15°	498.8	497.3	487.7	477.3	464.7	452.1	451.3	435.8	417.2	393.5	368.3
17.5°	512.1	511.4	502.5	492.1	481.7	472.1	471.3	455.0	435.0	410.6	382.4
20°	514.3	515.1	507.7	498.8	492.8	487.7	487.7	472.8	451.3	425.4	397.2
22.5°	515.1	517.3	512.1	500.3	498.8	499.5	501.0	489.1	466.9	442.4	412.8
25°	520.3	523.2	519.5	505.4	504.0	509.1	510.6	505.4	485.4	461.0	430.6
27.5°	530.6	533.6	530.6	512.9	510.6	515.8	517.3	520.3	505.4	478.8	449.1
30°	551.4	552.1	545.5	523.2	518.8	525.5	527.7	535.8	524.0	495.8	466.9
32.5°	587.7	580.3	560.3	530.6	526.9	534.3	536.6	545.5	541.0	512.1	485.4
35°	661.8	623.3	577.3	541.0	537.3	544.7	547.7	560.3	562.5	535.1	508.4
37.5°	661.1	626.2	617.3	561.0	555.8	561.0	564.7	580.3	589.2	565.5	541.8
40°	707.8	692.9	692.9	598.8	581.8	589.2	592.9	608.5	624.0	605.5	581.0
42.5°	854.5	844.9	834.5	671.5	618.1	638.8	641.1	650.7	669.2	663.3	634.4
45°	1018.3	1009.4	969.4	794.5	680.3	684.0	689.2	704.8	731.5	742.6	708.5
47.5°	1146.5	1137.6	1103.5	942.7	777.4	744.8	744.8	775.2	816.7	844.9	812.3
50°	1249.5	1239.1	1218.4	1100.6	936.8	832.3	827.8	863.4	924.9	968.6	946.4
52.5°	1349.6	1319.2	1306.6	1263.6	1116.9	959.0	947.1	972.3	1057.6	1111.7	1093.1
55°	1416.3	1411.8	1398.5	1413.3	1305.8	1113.2	1102.8	1108.0	1214.7	1251.0	1228.0
57.5°	1478.5	1477.8	1507.4	1576.4	1511.9	1289.5	1273.2	1265.1	1366.6	1357.7	1377.7
60°	1555.6	1542.3	1611.2	1709.8	1700.9	1461.5	1443.0	1426.6	1483.0	1457.8	1557.1
62.5°	1559.3	1555.6	1695.7	1837.2	1888.4	1636.4	1614.9	1556.3	1584.5	1555.6	1728.3
65°	1417.8	1436.3	1731.2	1904.7	2045.5	1789.8	1763.9	1672.7	1674.9	1655.7	1929.9
67.5°	1385.9	1395.5	1633.4	1977.3	2158.9	1944.7	1920.2	1806.8	1780.2	1781.6	2049.2
70°	1306.6	1321.4	1511.9	1972.1	2248.5	2151.5	2127.0	2004.0	1939.5	1867.6	1957.3
72.5°	998.3	1023.5	1274.0	1729.0	2224.1	2422.0	2415.3	2253.7	2003.2	1714.9	1480.7
75°	337.9	337.2	669.2	1161.3	1998.0	2505.0	2518.3	2222.6	1747.6	1182.8	735.2
77.5°	72.6	73.4	137.8	470.6	1327.3	2011.4	2062.5	1676.4	1127.2	526.9	168.2
80°	35.6	36.3	57.1	124.5	530.6	1128.0	1208.0	861.9	416.5	105.2	28.2
82.5°	17.8	18.5	29.6	66.0	196.4	400.9	428.4	317.2	119.3	59.3	14.1
85°	6.7	6.7	14.8	39.3	89.7	94.1	115.6	91.9	71.9	48.2	3.7
87.5°	1.5	1.5	8.2	19.3	40.0	29.6	29.6	28.2	43.7	32.6	1.5
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: P234844

CATALOG NUMBER: ARCH-M-AF48-40-D-U-T4W-8027-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	335.0	335.0	335.0	335.0	335.0	335.0	335.0	335.0	335.0	335.0	335.0
2.5°	334.2	331.3	326.1	320.9	317.2	312.8	310.5	308.3	307.6	306.8	308.3
5°	330.5	326.1	316.5	308.3	300.9	295.0	290.5	286.1	283.8	282.4	283.1
7.5°	330.5	323.9	309.8	297.2	285.3	272.7	260.1	250.5	243.1	238.6	239.4
10°	334.2	325.3	306.8	289.8	267.5	240.9	213.4	192.7	178.6	170.5	170.5
12.5°	342.4	330.5	307.6	280.9	243.1	196.4	154.9	129.7	119.3	113.4	114.1
15°	353.5	339.4	311.3	269.0	209.0	146.0	108.2	91.9	91.9	93.4	94.1
17.5°	366.1	350.5	314.2	251.2	165.3	104.5	85.2	83.7	86.0	89.7	89.7
20°	378.7	361.7	315.7	223.1	123.8	83.0	80.8	80.8	82.3	86.0	86.7
22.5°	394.3	375.7	314.2	188.2	92.6	78.6	77.8	77.8	77.8	82.3	82.3
25°	410.6	392.1	308.3	151.2	78.6	75.6	74.9	74.1	74.1	77.8	78.6
27.5°	429.1	409.1	294.2	115.6	74.1	72.6	71.9	70.4	70.4	73.4	73.4
30°	447.6	428.4	272.7	87.5	70.4	69.7	68.2	66.7	65.2	68.2	68.2
32.5°	467.6	448.4	244.6	69.7	65.2	65.2	64.5	62.3	60.8	62.3	63.0
35°	494.3	471.3	212.7	60.8	58.5	58.5	58.5	57.8	54.8	56.3	56.3
37.5°	529.9	503.2	175.6	56.3	53.4	51.9	51.9	51.9	49.7	50.4	50.4
40°	575.1	540.3	140.1	52.6	49.7	45.9	44.5	45.2	43.7	43.7	43.0
42.5°	636.6	580.3	105.2	49.7	46.7	41.5	38.5	37.8	36.3	35.6	35.6
45°	724.8	629.2	75.6	46.7	44.5	36.3	33.4	31.1	27.4	25.2	25.2
47.5°	838.9	684.8	56.3	43.7	42.2	31.9	28.2	23.7	18.5	17.0	17.0
50°	978.3	747.0	47.4	39.3	38.5	28.2	22.2	15.6	10.4	8.9	9.6
52.5°	1113.9	805.6	42.2	34.8	34.1	24.5	16.3	8.2	4.4	4.4	4.4
55°	1228.0	847.1	38.5	31.1	29.6	19.3	8.9	3.7	2.2	2.2	2.2
57.5°	1331.0	870.8	34.8	27.4	23.7	13.3	3.7	1.5	1.5	0.7	0.7
60°	1425.2	884.9	30.4	23.7	18.5	7.4	1.5	0.7	0.7	0.0	0.0
62.5°	1517.8	895.3	25.9	19.3	14.1	3.0	0.7	0.7	0.0	0.0	0.0
65°	1588.2	891.6	20.8	15.6	8.9	1.5	0.7	0.0	0.0	0.0	0.0
67.5°	1586.0	841.2	15.6	11.9	4.4	0.7	0.0	0.0	0.0	0.0	0.0
70°	1418.5	708.5	10.4	7.4	1.5	0.7	0.0	0.0	0.0	0.0	0.0
72.5°	1006.4	454.3	6.7	4.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0
75°	443.2	137.8	3.7	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	86.7	31.9	2.2	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	20.8	3.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	8.9	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.5	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)