

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: P234818

Luminaire Tested: **ARCH-M-AF48-40-D-U-T3-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234818
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-M-AF48-40-D-U-T3-8027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 240mA LIGHT ENGINES 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: 3170 lumens
Efficiency: N/A
Efficacy: 83.4 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Medium - Semi-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

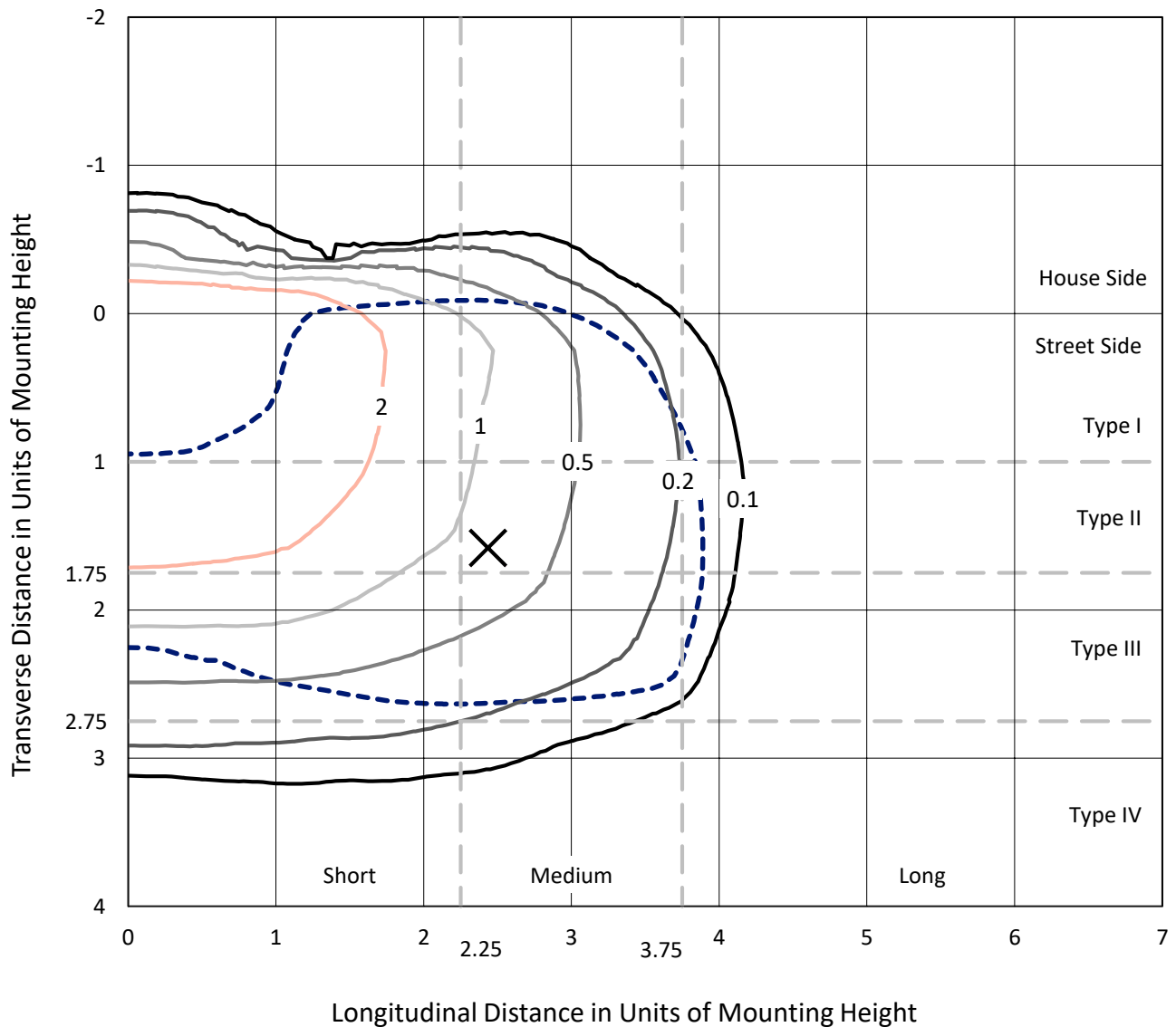


REPORT NUMBER: P234818

CATALOG NUMBER: ARCH-M-AF48-40-D-U-T3-8027-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

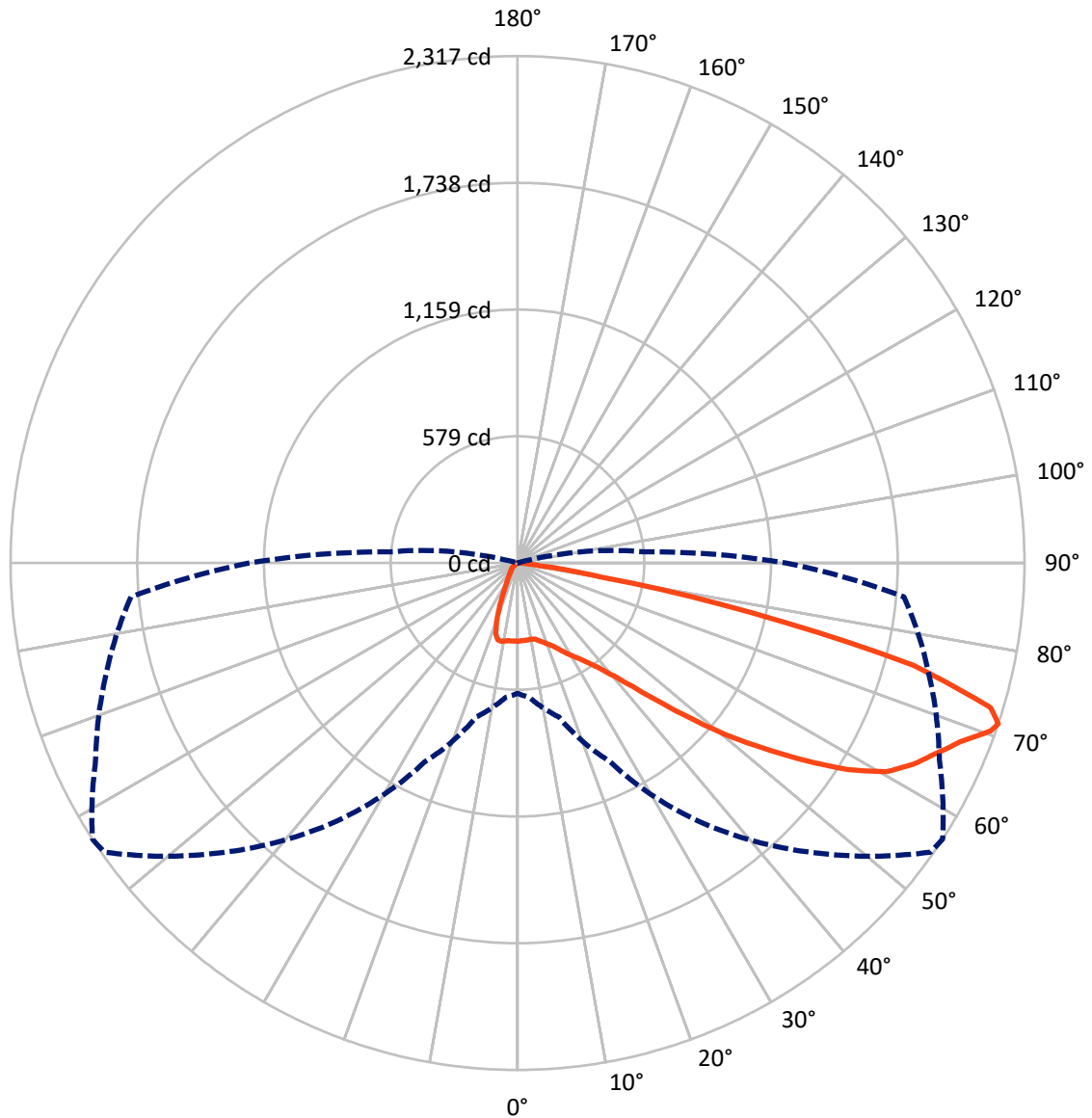


Based on 10 foot mounting height. Maximum calculated value = 4.5 fc
 Type III - Medium - Semi-Cutoff

REPORT NUMBER: P234818

CATALOG NUMBER: ARCH-M-AF48-40-D-U-T3-8027-HSS

Luminous Intensity Polar Plot



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



REPORT NUMBER: P234818

CATALOG NUMBER: ARCH-M-AF48-40-D-U-T3-8027-HSS

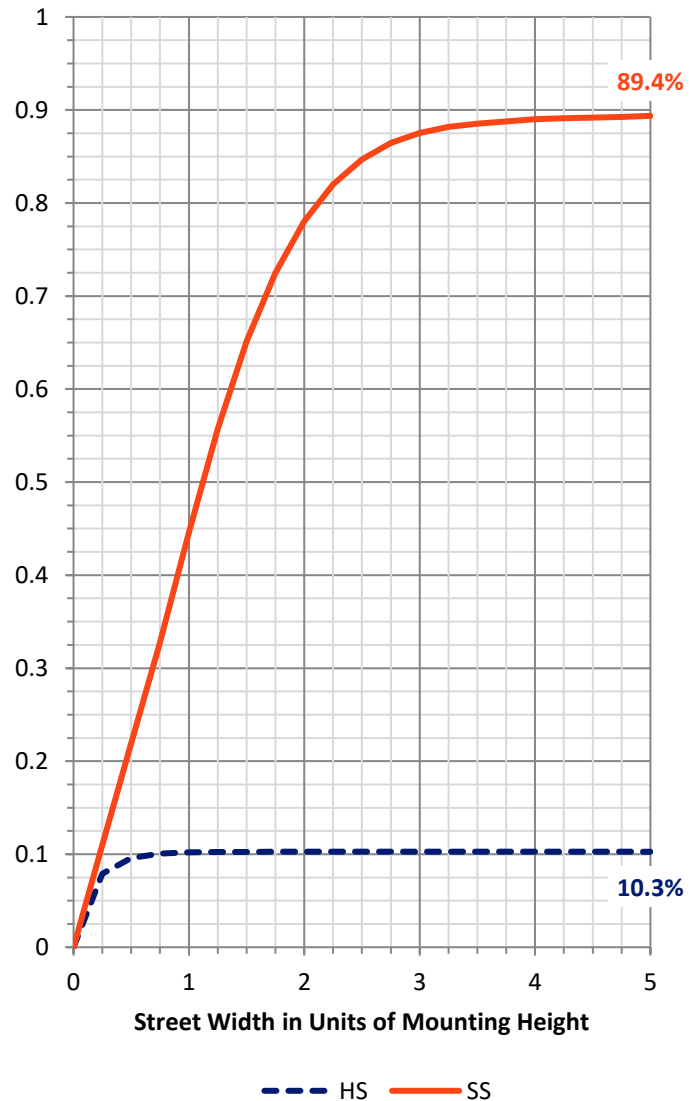
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	328.5	0.0	328.5
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	2841.5	0.0	2841.5
	% Fixture	89.6	0.0	89.6
Total	Lumens	3170.0	0.0	3170.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.6	1.1
10°-20°	90.0	2.8
20°-30°	140.3	4.4
30°-40°	237.2	7.5
40°-50°	460.7	14.5
50°-60°	773.6	24.4
60°-70°	923.3	29.1
70°-80°	486.6	15.3
80°-90°	24.7	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°	3170.0	100.0
0°-180°	3170.0	100.0

Coefficient of Utilization



REPORT NUMBER: P234818

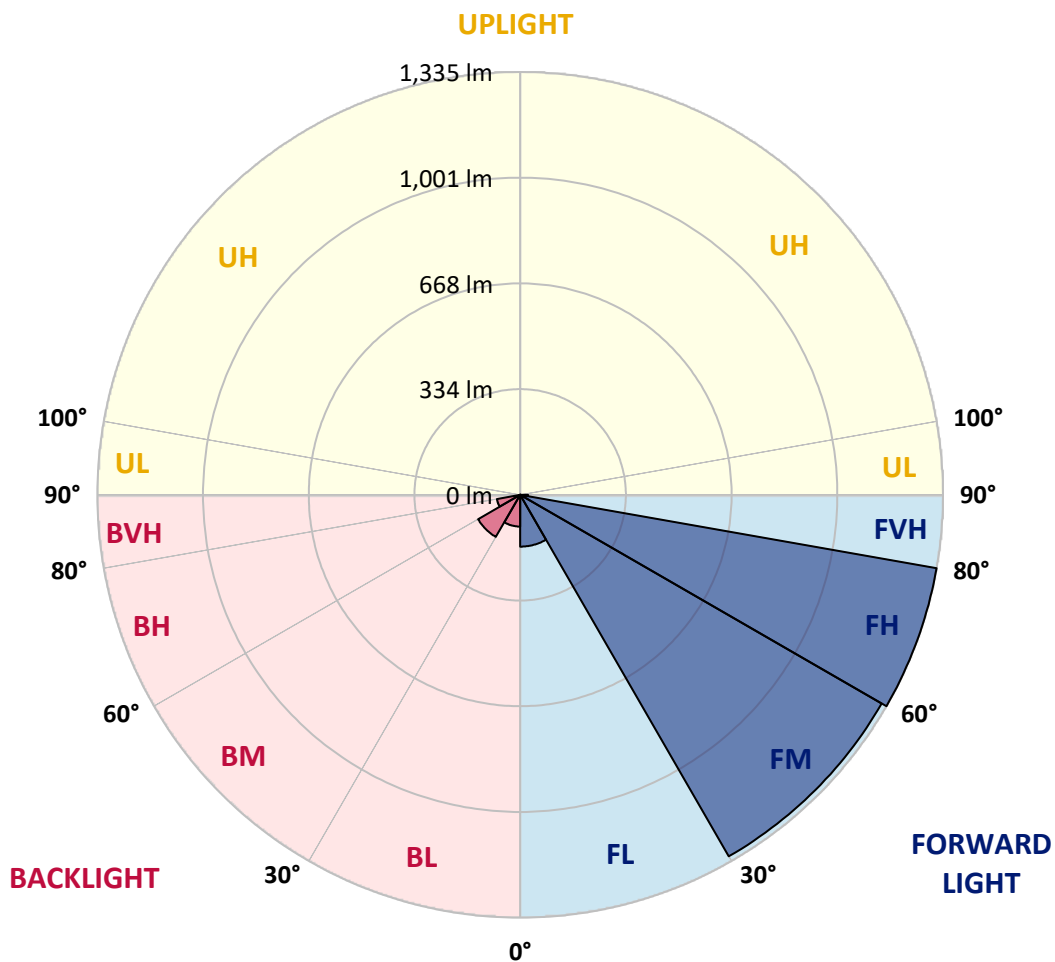
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	163.7	5.2			
FM	(30°-60°)	1318.1	41.6			
FH	(60°-80°)	1335.2	42.1			G1/1800
FVH	(80°-90°)	24.5	0.8			G1/100
BL	(0°-30°)	100.3	3.2	B0/110		
BM	(30°-60°)	153.4	4.8	B0/220		
BH	(60°-80°)	74.6	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





REPORT NUMBER: P234818

CATALOG NUMBER: ARCH-M-AF48-40-D-U-T3-8027-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3
2.5°	353.1	353.1	353.1	353.8	354.6	354.6	356.0	355.3	355.3	355.3	356.8
5°	343.5	344.2	345.0	346.4	349.4	351.6	355.3	355.3	356.0	357.5	358.3
7.5°	330.2	330.9	333.1	336.1	342.0	347.2	353.1	354.6	356.8	360.5	362.0
10°	322.1	323.5	326.5	330.2	336.8	343.5	350.9	353.1	359.7	366.4	370.1
12.5°	319.8	320.6	323.5	329.4	337.6	345.7	355.3	357.5	367.1	377.5	383.4
15°	323.5	324.3	325.8	332.4	342.0	352.3	364.9	367.9	379.7	391.5	398.9
17.5°	330.2	330.2	331.7	337.6	347.9	359.7	376.0	380.4	393.7	407.0	415.1
20°	334.6	334.6	336.8	342.7	354.6	370.1	389.3	395.2	410.0	424.7	432.1
22.5°	339.1	339.8	342.0	348.7	362.0	383.4	405.5	411.4	428.4	443.9	451.3
25°	351.6	350.9	351.6	357.5	373.0	399.6	427.7	435.1	452.8	469.8	473.5
27.5°	386.3	384.9	375.2	371.6	383.4	416.6	455.8	463.2	483.8	500.8	500.8
30°	466.1	463.2	439.5	409.2	399.6	432.1	482.4	492.7	519.3	534.1	529.6
32.5°	567.3	560.7	530.4	478.7	440.3	452.8	510.4	522.2	556.2	568.8	559.2
35°	678.1	677.4	639.7	573.2	518.6	495.7	546.6	560.7	603.5	614.6	599.1
37.5°	795.6	798.5	773.4	681.8	617.5	565.8	594.6	610.9	663.3	676.6	661.9
40°	926.3	925.6	916.0	807.4	736.5	665.5	664.1	678.8	742.4	763.1	742.4
42.5°	1091.8	1090.3	1055.6	958.1	880.5	795.6	765.3	770.4	841.4	875.3	845.0
45°	1260.2	1249.8	1210.0	1125.7	1057.0	956.6	899.0	899.0	959.5	1006.1	958.8
47.5°	1354.0	1343.7	1327.4	1280.9	1260.2	1147.9	1063.0	1052.6	1099.9	1147.2	1080.7
50°	1477.4	1477.4	1436.7	1419.0	1454.5	1375.4	1243.9	1233.6	1256.5	1294.2	1207.0
52.5°	1574.9	1557.1	1528.3	1543.8	1645.0	1608.8	1424.9	1405.0	1422.7	1432.3	1317.1
55°	1615.5	1598.5	1596.3	1653.2	1809.8	1759.5	1610.3	1592.6	1591.1	1543.8	1413.1
57.5°	1623.6	1608.8	1636.9	1736.6	1970.1	1882.9	1795.0	1781.7	1740.3	1622.1	1511.3
60°	1554.9	1562.3	1630.3	1782.4	2064.6	1990.0	1950.8	1936.8	1841.5	1688.6	1620.7
62.5°	1413.8	1431.6	1558.6	1786.9	2029.9	2033.6	2037.3	2027.7	1919.8	1749.2	1730.7
65°	1246.9	1252.1	1405.0	1725.5	1969.3	2020.3	2100.8	2100.1	1979.7	1817.1	1854.8
67.5°	1027.5	1036.4	1168.6	1518.7	1848.2	2014.4	2184.3	2182.1	2047.6	1894.7	1928.7
70°	764.5	775.6	882.7	1181.1	1577.8	1940.5	2293.6	2295.1	2119.3	1953.8	1877.7
71°	596.1	616.1	728.3	1003.1	1439.7	1865.9	2303.9	2317.2	2127.4	1945.7	1772.8
72.5°	292.5	316.2	457.2	706.2	1184.8	1699.0	2236.0	2261.8	2076.4	1844.5	1515.8
75°	76.1	80.5	136.7	288.8	635.3	1125.7	1803.1	1868.9	1697.5	1404.2	926.3
77.5°	48.0	49.5	64.3	112.3	237.9	427.7	1059.3	1091.8	969.9	711.3	326.5
80°	34.0	34.7	40.6	72.4	138.9	124.8	381.2	395.2	350.9	188.4	58.4
82.5°	20.7	20.7	29.5	46.5	85.7	68.0	100.5	107.1	94.6	52.4	19.2
85°	11.8	12.6	18.5	31.8	40.6	33.2	37.7	39.9	40.6	34.7	8.1
87.5°	9.6	10.3	16.3	26.6	22.2	16.3	16.3	17.0	17.7	20.7	3.7
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: P234818

CATALOG NUMBER: ARCH-M-AF48-40-D-U-T3-8027-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3
2.5°	356.8	356.8	357.5	356.8	356.8	356.8	357.5	357.5	357.5	359.0	359.7
5°	358.3	358.3	358.3	357.5	356.8	356.8	358.3	359.0	359.0	361.2	361.2
7.5°	362.0	362.0	360.5	359.0	357.5	355.3	356.0	356.8	356.0	356.8	356.8
10°	370.1	370.1	367.9	364.9	360.5	353.8	345.0	333.9	323.5	319.8	318.4
12.5°	383.4	382.6	378.2	373.0	363.4	340.5	307.3	268.1	235.6	226.8	223.8
15°	398.1	396.7	391.5	382.6	356.8	296.2	226.8	176.5	145.5	138.1	136.7
17.5°	413.7	411.4	404.1	386.3	326.5	220.1	146.3	110.8	93.8	92.3	93.1
20°	429.9	427.0	416.6	378.9	263.7	147.0	94.6	85.7	84.2	84.2	84.9
22.5°	448.4	444.7	430.6	352.3	192.1	97.5	81.3	80.5	79.8	79.0	79.0
25°	469.8	465.4	443.9	304.3	132.2	79.8	77.6	75.3	73.9	72.4	71.7
27.5°	495.7	489.7	454.3	245.2	90.9	74.6	73.1	69.4	66.5	63.5	63.5
30°	521.5	514.1	451.3	184.7	73.9	69.4	66.5	62.0	57.6	54.7	53.9
32.5°	548.8	541.4	432.1	124.1	67.2	63.5	59.8	53.2	48.0	44.3	43.6
35°	589.5	583.6	394.5	82.0	60.6	56.1	51.0	44.3	37.7	34.0	33.2
37.5°	650.0	642.6	347.9	62.8	53.2	46.5	42.1	34.7	28.1	24.4	23.6
40°	731.3	709.1	292.5	55.4	46.5	38.4	32.5	25.1	19.9	17.7	17.7
42.5°	825.8	773.4	232.7	50.2	41.4	31.8	23.6	17.0	14.0	13.3	13.3
45°	926.3	833.2	172.9	46.5	36.2	25.1	17.0	11.8	10.3	9.6	9.6
47.5°	1029.7	882.0	120.4	42.1	30.3	19.2	11.8	8.9	7.4	6.6	6.6
50°	1126.5	913.7	84.9	37.7	25.9	14.0	8.9	6.6	5.2	5.2	5.2
52.5°	1193.7	910.8	61.3	32.5	19.9	9.6	5.9	4.4	4.4	4.4	4.4
55°	1252.8	899.7	48.0	28.1	15.5	6.6	4.4	3.7	3.7	3.0	3.0
57.5°	1303.0	882.0	40.6	22.9	11.1	5.2	3.0	3.0	2.2	2.2	2.2
60°	1345.9	859.8	34.0	19.2	7.4	3.7	2.2	1.5	1.5	0.7	1.5
62.5°	1404.2	845.8	29.5	14.8	5.2	2.2	1.5	0.7	0.7	0.0	0.0
65°	1447.1	819.2	25.1	10.3	3.0	1.5	0.7	0.7	0.0	0.0	0.0
67.5°	1448.5	771.2	18.5	5.9	2.2	1.5	0.7	0.0	0.0	0.0	0.0
70°	1331.8	657.4	11.8	3.0	1.5	0.7	0.7	0.0	0.0	0.0	0.0
71°	1224.7	582.1	9.6	2.2	1.5	0.7	0.0	0.0	0.0	0.0	0.0
72.5°	1009.0	427.7	7.4	2.2	0.7	0.7	0.0	0.0	0.0	0.0	0.0
75°	556.2	155.1	3.7	1.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	178.0	47.3	2.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	30.3	7.4	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	10.3	3.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.0	1.5	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)