

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: P231361

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231361
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-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 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: 4122.5 lumens
Efficiency: N/A
Efficacy: 108.5 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 - G2

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

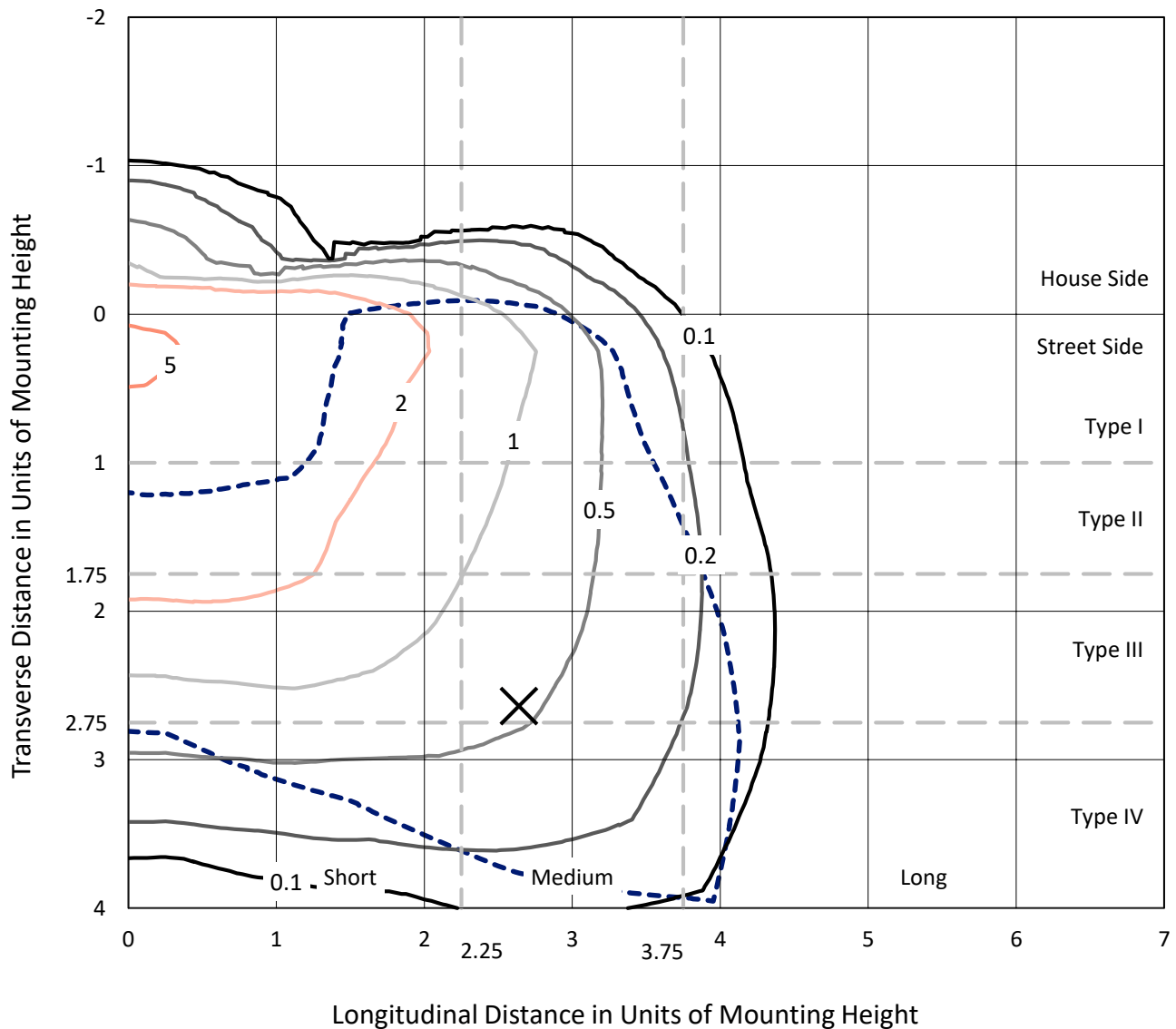


REPORT NUMBER: P231361

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

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

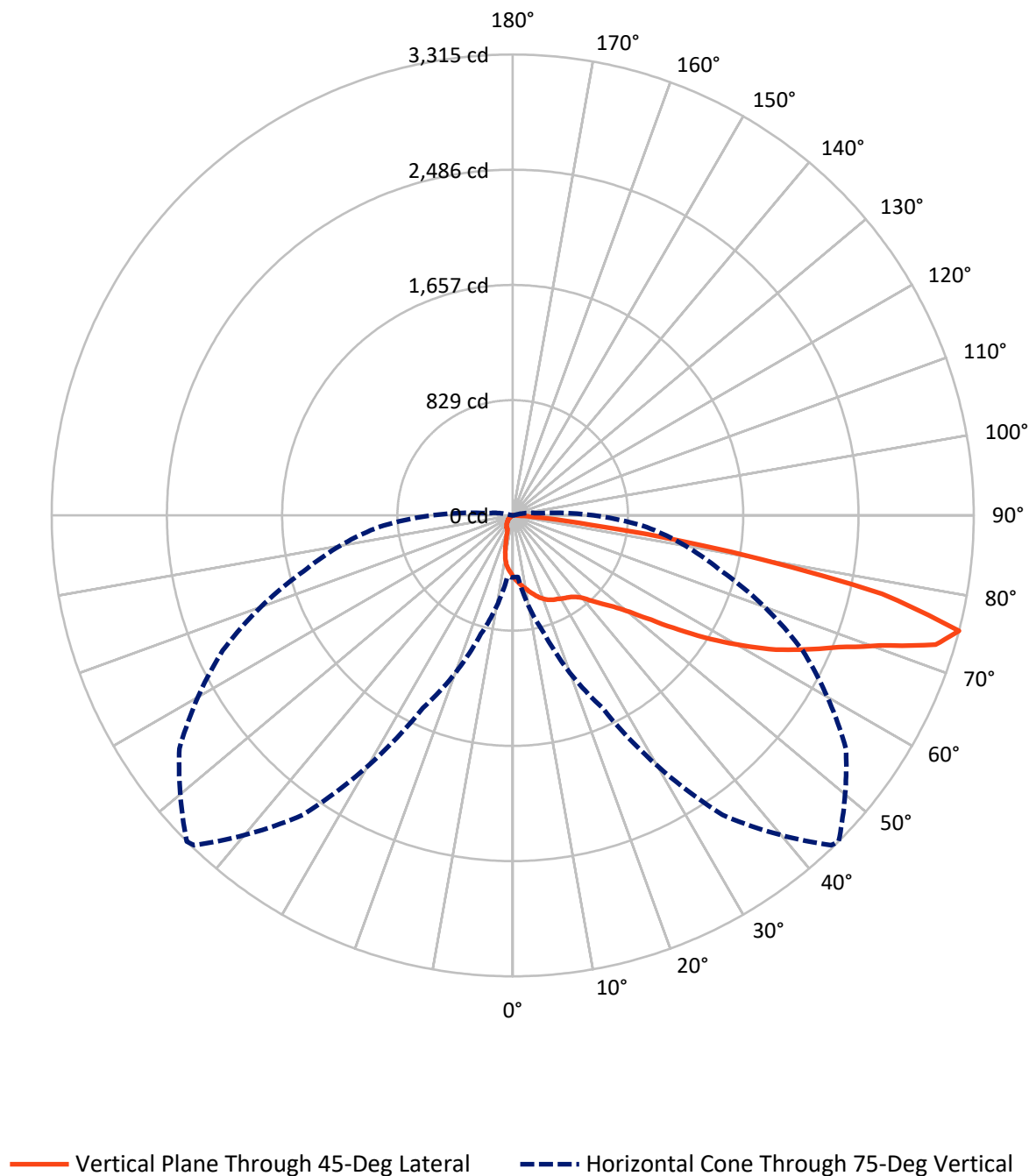


Based on 10 foot mounting height. Maximum calculated value = 5.9 fc
Type IV - Medium - Non-Cutoff

REPORT NUMBER: P231361

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

Luminous Intensity Polar Plot



REPORT NUMBER: P231361

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

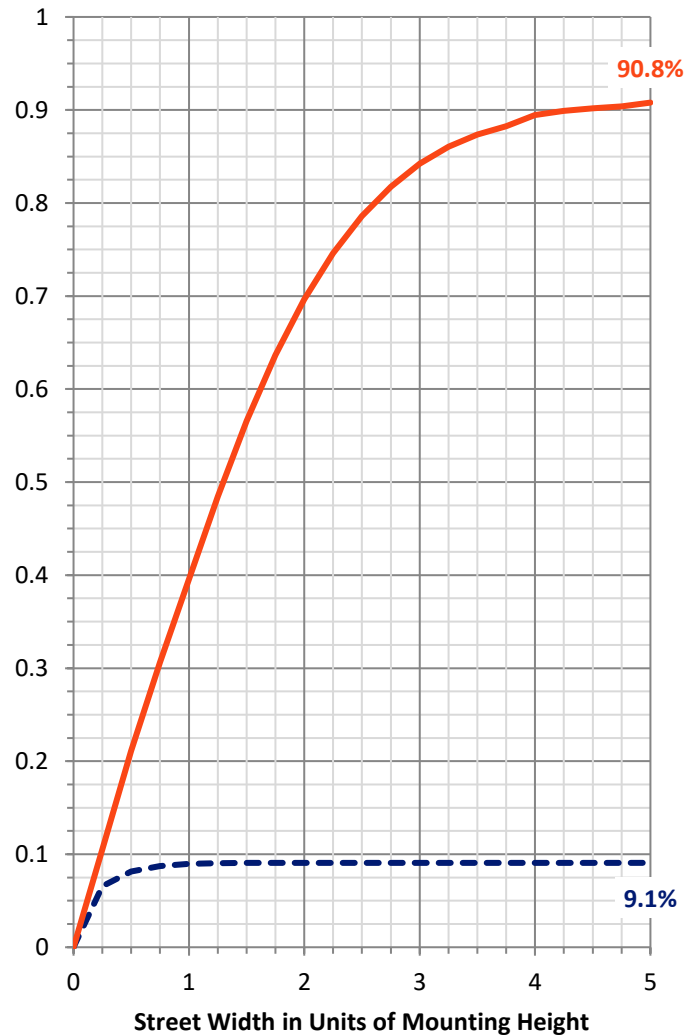
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	377.1	0.0	377.1
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	3745.4	0.0	3745.4
	% Fixture	90.9	0.0	90.9
Total	Lumens	4122.5	0.0	4122.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.6	1.0
10°-20°	117.9	2.9
20°-30°	195.2	4.7
30°-40°	282.6	6.9
40°-50°	462.7	11.2
50°-60°	824.4	20.0
60°-70°	1212.0	29.4
70°-80°	914.3	22.2
80°-90°	71.7	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°	4122.5	100.0
0°-180°	4122.5	100.0

Coefficient of Utilization



REPORT NUMBER: P231361

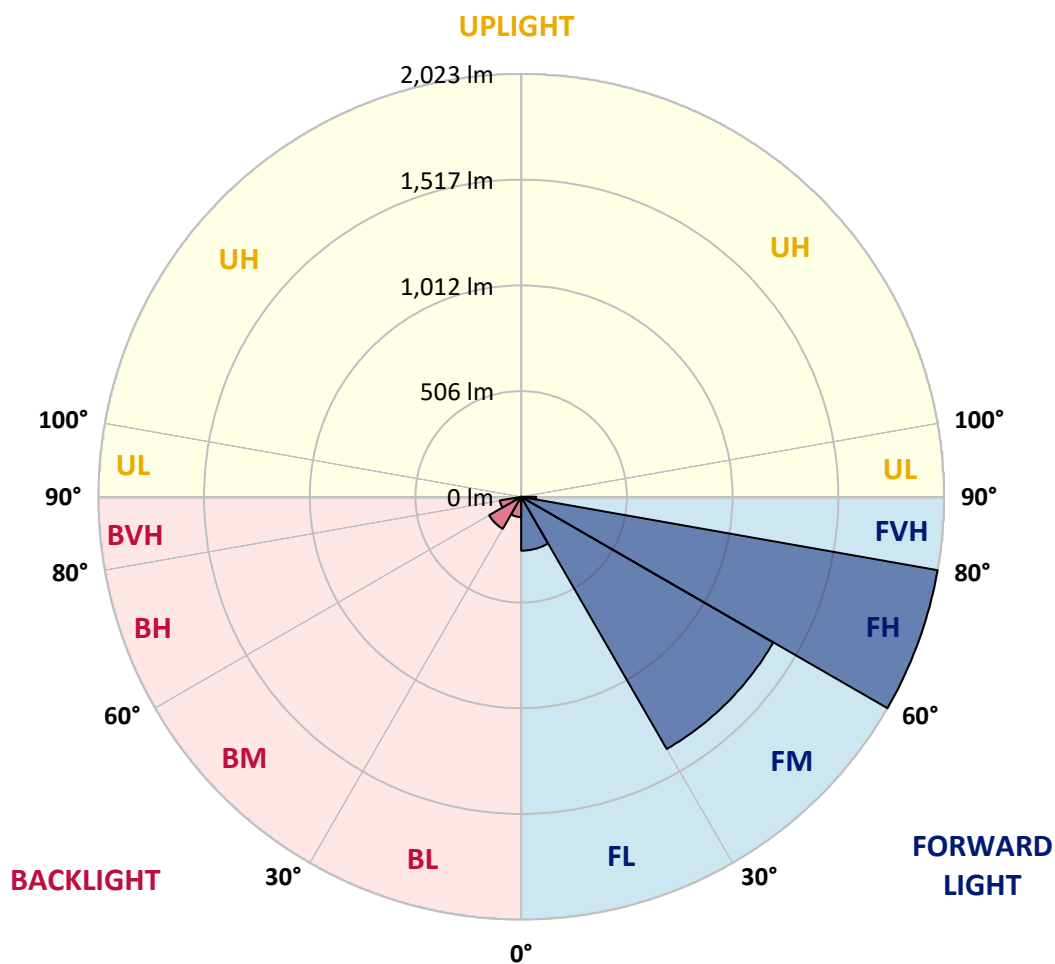
CATALOG NUMBER: ARCH-M-AF48-40-D-U-T4W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	257.8	6.3			
FM	(30°-60°)	1393.0	33.8			
FH	(60°-80°)	2023.1	49.1			G2/5000
FVH	(80°-90°)	71.5	1.7			G1/100
BL	(0°-30°)	96.9	2.4	B0/110		
BM	(30°-60°)	176.7	4.3	B0/220		
BH	(60°-80°)	103.3	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-G2

Type IV Medium





REPORT NUMBER: P231361

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

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	440.9	440.9	440.9	440.9	440.9	440.9	440.9	440.9	440.9	440.9	440.9
2.5°	478.9	478.9	478.0	477.0	472.1	467.3	466.3	463.4	454.6	448.8	442.8
5°	518.9	520.0	518.0	513.1	502.4	491.6	490.7	482.8	466.3	454.6	441.9
7.5°	557.0	558.9	554.0	545.3	532.7	517.0	516.1	501.5	480.0	463.4	444.8
10°	589.2	589.2	582.4	571.6	558.0	541.4	539.4	522.8	498.5	478.0	453.6
12.5°	624.3	623.4	613.6	598.9	583.4	567.7	566.7	546.3	522.8	496.5	466.3
15°	656.5	654.6	641.9	628.2	611.6	595.1	594.0	573.6	549.2	518.0	484.8
17.5°	674.0	673.1	661.3	647.7	634.0	621.3	620.4	598.9	572.6	540.4	503.4
20°	677.0	678.0	668.2	656.5	648.7	641.9	641.9	622.4	594.0	560.0	522.8
22.5°	678.0	680.9	674.0	658.5	656.5	657.5	659.4	643.8	614.6	582.4	543.4
25°	684.8	688.7	683.8	665.3	663.4	670.1	672.1	665.3	638.9	606.7	566.7
27.5°	698.5	702.4	698.5	675.0	672.1	678.9	680.9	684.8	665.3	630.1	591.2
30°	725.8	726.7	718.0	688.7	682.8	691.6	694.6	705.3	689.7	652.6	614.6
32.5°	773.6	763.8	737.4	698.5	693.6	703.4	706.2	718.0	712.1	674.0	638.9
35°	871.1	820.4	760.0	712.1	707.3	717.0	720.9	737.4	740.4	704.3	669.2
37.5°	870.1	824.3	812.6	738.5	731.6	738.5	743.3	763.8	775.5	744.3	713.1
40°	931.6	912.1	912.1	788.2	765.8	775.5	780.4	800.9	821.3	797.0	764.8
42.5°	1124.7	1112.0	1098.4	883.8	813.6	840.9	843.8	856.5	880.9	873.1	835.0
45°	1340.4	1328.6	1275.9	1045.8	895.5	900.4	907.3	927.7	962.8	977.4	932.5
47.5°	1509.1	1497.4	1452.5	1240.8	1023.3	980.4	980.4	1020.4	1075.0	1112.0	1069.2
50°	1644.7	1631.0	1603.7	1448.6	1233.1	1095.5	1089.6	1136.5	1217.4	1275.0	1245.7
52.5°	1776.4	1736.4	1719.8	1663.2	1470.1	1262.3	1246.7	1279.8	1392.0	1463.2	1438.9
55°	1864.1	1858.3	1840.8	1860.2	1718.9	1465.2	1451.6	1458.3	1598.9	1646.6	1616.4
57.5°	1946.1	1945.1	1984.1	2074.9	1990.0	1697.4	1675.9	1665.2	1798.9	1787.1	1813.5
60°	2047.5	2030.0	2120.7	2250.5	2238.7	1923.7	1899.3	1877.8	1952.0	1918.7	2049.5
62.5°	2052.4	2047.5	2232.0	2418.3	2485.6	2153.9	2125.6	2048.6	2085.6	2047.5	2274.8
65°	1866.2	1890.5	2278.7	2507.0	2692.4	2355.9	2321.7	2201.7	2204.7	2179.3	2540.2
67.5°	1824.1	1836.8	2149.9	2602.6	2841.7	2559.7	2527.5	2378.3	2343.2	2345.1	2697.2
70°	1719.8	1739.3	1990.0	2595.7	2959.6	2831.8	2799.7	2637.8	2552.9	2458.3	2576.3
72.5°	1314.0	1347.1	1676.9	2275.9	2927.5	3187.9	3179.1	2966.5	2636.8	2257.2	1949.0
75°	444.8	443.9	880.9	1528.6	2629.9	3297.2	3314.8	2925.5	2300.2	1556.9	967.7
77.5°	95.6	96.6	181.5	619.4	1747.1	2647.5	2714.8	2206.6	1483.7	693.6	221.5
80°	46.9	47.8	75.1	163.9	698.5	1484.7	1590.1	1134.5	548.2	138.5	37.0
82.5°	23.4	24.3	39.0	86.8	258.5	527.7	563.9	417.5	157.0	78.1	18.5
85°	8.8	8.8	19.5	51.7	118.0	123.9	152.2	120.9	94.6	63.4	4.9
87.5°	1.9	1.9	10.7	25.4	52.7	39.0	39.0	37.0	57.6	43.0	1.9
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: P231361

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

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	440.9	440.9	440.9	440.9	440.9	440.9	440.9	440.9	440.9	440.9	440.9
2.5°	440.0	436.1	429.2	422.4	417.5	411.6	408.8	405.8	404.8	403.9	405.8
5°	435.1	429.2	416.5	405.8	396.1	388.2	382.4	376.5	373.6	371.6	372.7
7.5°	435.1	426.3	407.7	391.2	375.5	359.0	342.4	329.7	320.0	314.1	315.1
10°	440.0	428.2	403.9	381.5	352.2	317.0	280.9	253.6	235.1	224.3	224.3
12.5°	450.7	435.1	404.8	369.7	320.0	258.5	203.9	170.7	157.0	149.2	150.3
15°	465.3	446.8	409.7	354.1	275.1	192.2	142.4	120.9	120.9	123.0	123.9
17.5°	481.9	461.5	413.6	330.7	217.6	137.6	112.2	110.3	113.1	118.0	118.0
20°	498.5	476.1	415.5	293.6	163.0	109.3	106.3	106.3	108.3	113.1	114.2
22.5°	518.9	494.6	413.6	247.8	121.9	103.4	102.4	102.4	102.4	108.3	108.3
25°	540.4	516.1	405.8	199.0	103.4	99.5	98.5	97.6	97.6	102.4	103.4
27.5°	564.8	538.5	387.3	152.2	97.6	95.6	94.6	92.7	92.7	96.6	96.6
30°	589.2	563.9	359.0	115.1	92.7	91.7	89.7	87.8	85.8	89.7	89.7
32.5°	615.5	590.1	321.9	91.7	85.8	85.8	84.9	81.9	80.0	81.9	83.0
35°	650.7	620.4	280.0	80.0	77.0	77.0	77.0	76.1	72.2	74.2	74.2
37.5°	697.4	662.4	231.2	74.2	70.3	68.3	68.3	68.3	65.4	66.3	66.3
40°	757.0	711.2	184.3	69.3	65.4	60.5	58.5	59.5	57.6	57.6	56.6
42.5°	837.9	763.8	138.5	65.4	61.5	54.6	50.7	49.7	47.8	46.9	46.9
45°	954.0	828.2	99.5	61.5	58.5	47.8	43.9	41.0	36.1	33.1	33.1
47.5°	1104.3	901.3	74.2	57.6	55.6	41.9	37.0	31.2	24.3	22.4	22.4
50°	1287.7	983.3	62.4	51.7	50.7	37.0	29.3	20.5	13.7	11.7	12.7
52.5°	1466.2	1060.4	55.6	45.8	44.9	32.2	21.5	10.7	5.8	5.8	5.8
55°	1616.4	1115.0	50.7	41.0	39.0	25.4	11.7	4.9	3.0	3.0	3.0
57.5°	1752.0	1146.2	45.8	36.1	31.2	17.6	4.9	1.9	1.9	1.0	1.0
60°	1875.9	1164.7	40.0	31.2	24.3	9.7	1.9	1.0	1.0	0.0	0.0
62.5°	1997.8	1178.4	34.2	25.4	18.5	3.9	1.0	1.0	0.0	0.0	0.0
65°	2090.5	1173.5	27.3	20.5	11.7	1.9	1.0	0.0	0.0	0.0	0.0
67.5°	2087.5	1107.1	20.5	15.7	5.8	1.0	0.0	0.0	0.0	0.0	0.0
70°	1867.1	932.5	13.7	9.7	1.9	1.0	0.0	0.0	0.0	0.0	0.0
72.5°	1324.7	598.0	8.8	5.8	1.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	583.4	181.5	4.9	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	114.2	41.9	3.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	27.3	4.9	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	11.7	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.9	1.0	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)