

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: P234845

Luminaire Tested: **ARCH-M-AF48-50-D-U-T4W-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234845
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-AF48-50-D-U-T4W-8027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 305mA 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: 3891 lumens
Efficiency: N/A
Efficacy: 81.1 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): 48
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

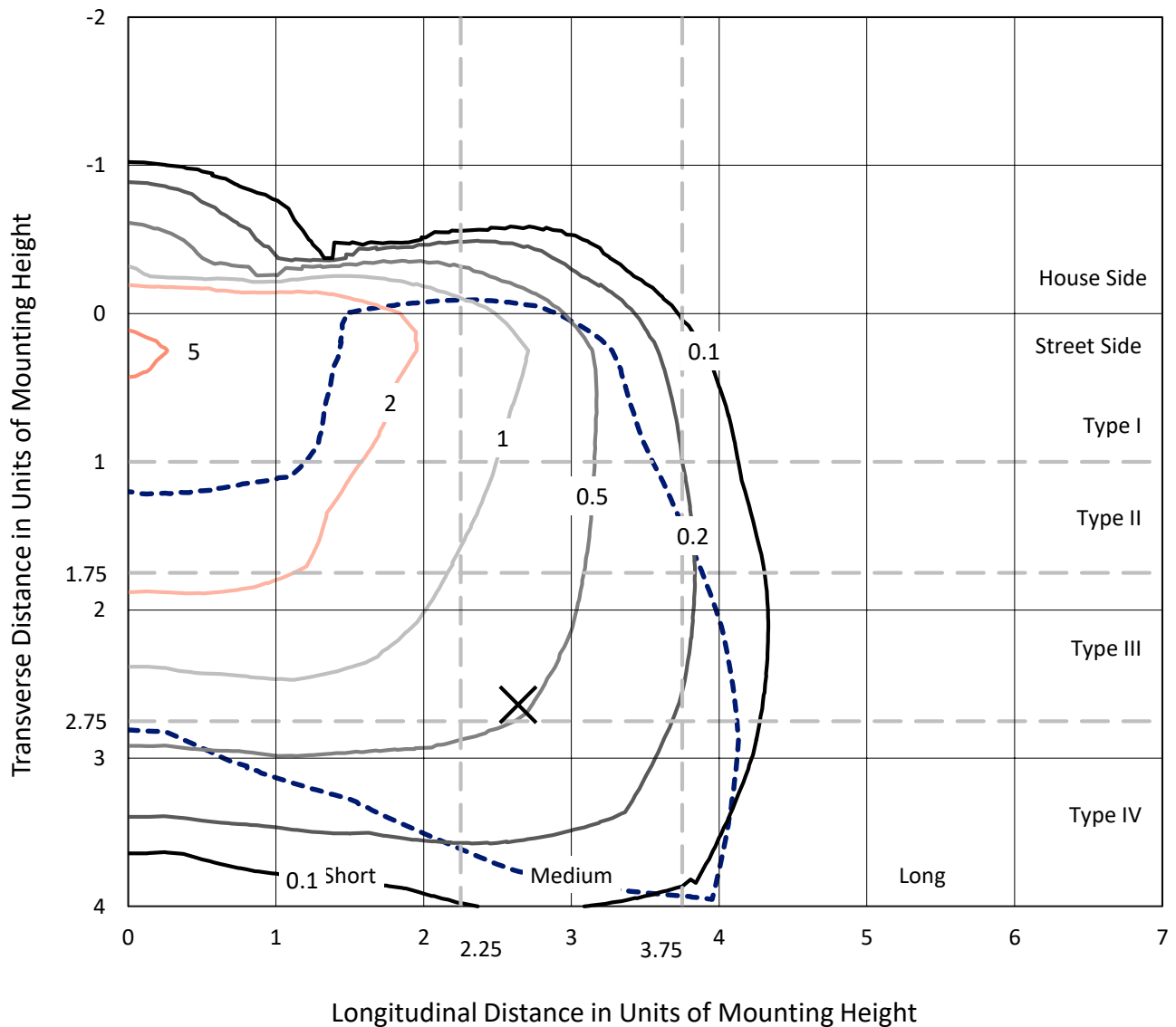


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

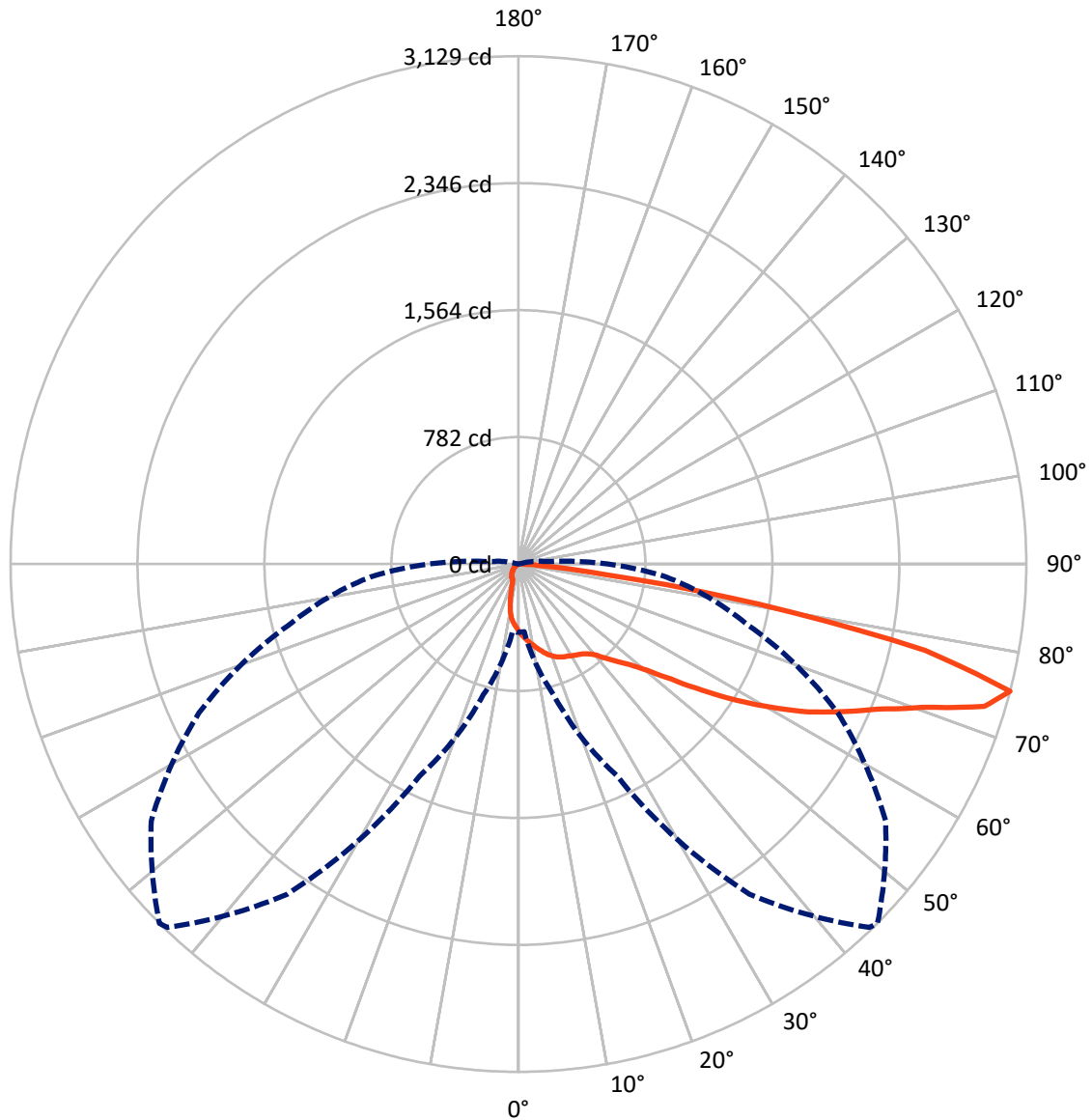


Based on 10 foot mounting height. Maximum calculated value = 5.6 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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

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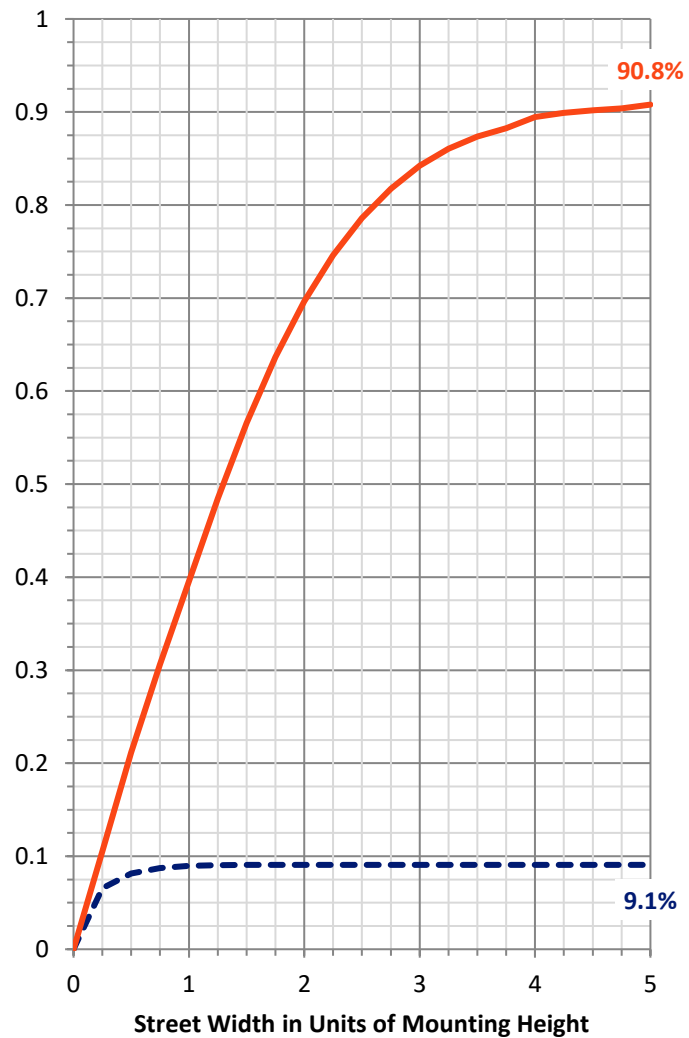
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	355.9	0.0	355.9
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	3535.1	0.0	3535.1
	% Fixture	90.9	0.0	90.9
Total	Lumens	3891.0	0.0	3891.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.3	1.0
10°-20°	111.3	2.9
20°-30°	184.3	4.7
30°-40°	266.7	6.9
40°-50°	436.7	11.2
50°-60°	778.1	20.0
60°-70°	1143.9	29.4
70°-80°	863.0	22.2
80°-90°	67.7	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°	3891.0	100.0
0°-180°	3891.0	100.0



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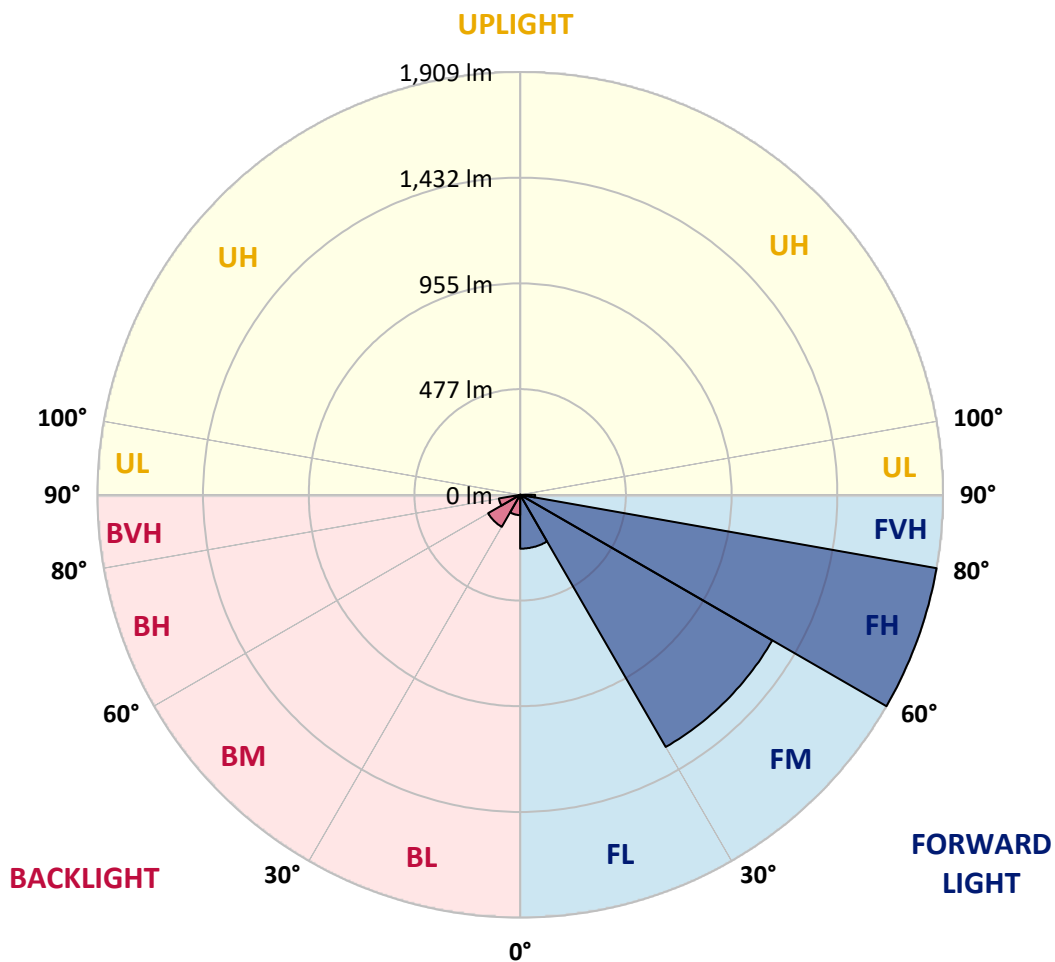
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	243.4	6.3			
FM	(30°-60°)	1314.7	33.8			
FH	(60°-80°)	1909.5	49.1			G2/5000
FVH	(80°-90°)	67.5	1.7			G1/100
BL	(0°-30°)	91.5	2.4	B0/110		
BM	(30°-60°)	166.8	4.3	B0/220		
BH	(60°-80°)	97.5	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-G2

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	416.2	416.2	416.2	416.2	416.2	416.2	416.2	416.2	416.2	416.2	416.2
2.5°	452.1	452.1	451.2	450.2	445.6	441.0	440.1	437.3	429.1	423.5	418.0
5°	489.8	490.7	488.9	484.3	474.2	464.0	463.1	455.8	440.1	429.1	417.1
7.5°	525.7	527.6	523.0	514.7	502.7	488.0	487.1	473.2	453.0	437.3	419.8
10°	556.1	556.1	549.7	539.5	526.6	511.0	509.2	493.5	470.5	451.2	428.1
12.5°	589.3	588.3	579.1	565.3	550.6	535.9	534.9	515.6	493.5	468.6	440.1
15°	619.6	617.8	605.8	592.9	577.3	561.6	560.7	541.4	518.4	488.9	457.6
17.5°	636.2	635.3	624.2	611.4	598.5	586.5	585.6	565.3	540.5	510.1	475.1
20°	639.0	639.9	630.7	619.6	612.3	605.8	605.8	587.4	560.7	528.5	493.5
22.5°	639.9	642.7	636.2	621.5	619.6	620.6	622.4	607.7	580.1	549.7	512.8
25°	646.3	650.0	645.4	627.9	626.1	632.5	634.4	627.9	603.1	572.7	534.9
27.5°	659.2	662.9	659.2	637.1	634.4	640.8	642.7	646.3	627.9	594.8	558.0
30°	685.0	685.9	677.6	650.0	644.5	652.8	655.5	665.7	650.9	616.0	580.1
32.5°	730.1	720.9	696.1	659.2	654.6	663.8	666.6	677.6	672.1	636.2	603.1
35°	822.2	774.3	717.2	672.1	667.5	676.7	680.4	696.1	698.8	664.8	631.6
37.5°	821.3	778.0	767.0	697.0	690.5	697.0	701.6	720.9	732.0	702.5	673.0
40°	879.3	860.9	860.9	743.9	722.8	732.0	736.6	755.9	775.2	752.2	721.8
42.5°	1061.6	1049.6	1036.7	834.2	767.9	793.7	796.4	808.4	831.4	824.0	788.1
45°	1265.1	1254.0	1204.3	987.0	845.2	849.8	856.3	875.6	908.7	922.6	880.2
47.5°	1424.3	1413.3	1370.9	1171.2	965.8	925.3	925.3	963.1	1014.6	1049.6	1009.1
50°	1552.3	1539.4	1513.7	1367.3	1163.8	1034.0	1028.4	1072.6	1149.1	1203.4	1175.8
52.5°	1676.6	1638.9	1623.2	1569.8	1387.5	1191.4	1176.7	1208.0	1313.9	1381.1	1358.1
55°	1759.5	1754.0	1737.4	1755.8	1622.3	1382.9	1370.0	1376.5	1509.1	1554.2	1525.6
57.5°	1836.8	1835.9	1872.7	1958.4	1878.3	1602.0	1581.8	1571.7	1697.8	1686.8	1711.6
60°	1932.6	1916.0	2001.6	2124.1	2113.0	1815.7	1792.6	1772.4	1842.4	1811.0	1934.4
62.5°	1937.2	1932.6	2106.6	2282.5	2346.0	2032.9	2006.2	1933.5	1968.5	1932.6	2147.1
65°	1761.3	1784.3	2150.8	2366.2	2541.2	2223.5	2191.3	2078.1	2080.8	2056.9	2397.5
67.5°	1721.7	1733.7	2029.3	2456.5	2682.0	2416.0	2385.6	2244.7	2211.6	2213.4	2545.8
70°	1623.2	1641.6	1878.3	2450.0	2793.5	2672.8	2642.5	2489.6	2409.5	2320.2	2431.6
72.5°	1240.2	1271.5	1582.7	2148.0	2763.1	3008.9	3000.6	2799.9	2488.7	2130.5	1839.6
75°	419.8	418.9	831.4	1442.8	2482.2	3112.0	3128.6	2761.2	2171.0	1469.5	913.4
77.5°	90.2	91.2	171.3	584.7	1649.0	2498.8	2562.4	2082.7	1400.4	654.6	209.0
80°	44.2	45.1	70.9	154.7	659.2	1401.3	1500.8	1070.8	517.4	130.7	35.0
82.5°	22.1	23.0	36.8	81.9	244.0	498.1	532.2	394.1	148.2	73.7	17.5
85°	8.3	8.3	18.4	48.8	111.4	116.9	143.6	114.2	89.3	59.8	4.6
87.5°	1.8	1.8	10.1	23.9	49.7	36.8	36.8	35.0	54.3	40.5	1.8
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°	416.2	416.2	416.2	416.2	416.2	416.2	416.2	416.2	416.2	416.2	416.2
2.5°	415.2	411.6	405.1	398.7	394.1	388.5	385.8	383.0	382.1	381.2	383.0
5°	410.6	405.1	393.1	383.0	373.8	366.4	360.9	355.4	352.6	350.8	351.7
7.5°	410.6	402.4	384.9	369.2	354.5	338.8	323.2	311.2	302.0	296.5	297.4
10°	415.2	404.2	381.2	360.0	332.4	299.2	265.2	239.4	221.9	211.8	211.8
12.5°	425.4	410.6	382.1	349.0	302.0	244.0	192.4	161.1	148.2	140.9	141.8
15°	439.2	421.7	386.7	334.2	259.6	181.4	134.4	114.2	114.2	116.0	116.9
17.5°	454.8	435.5	390.4	312.1	205.3	129.8	105.9	104.0	106.8	111.4	111.4
20°	470.5	449.3	392.2	277.1	153.8	103.1	100.4	100.4	102.2	106.8	107.7
22.5°	489.8	466.8	390.4	233.9	115.1	97.6	96.7	96.7	96.7	102.2	102.2
25°	510.1	487.1	383.0	187.8	97.6	93.9	93.0	92.1	92.1	96.7	97.6
27.5°	533.1	508.2	365.5	143.6	92.1	90.2	89.3	87.5	87.5	91.2	91.2
30°	556.1	532.2	338.8	108.6	87.5	86.5	84.7	82.9	81.0	84.7	84.7
32.5°	581.0	557.0	303.8	86.5	81.0	81.0	80.1	77.3	75.5	77.3	78.3
35°	614.1	585.6	264.2	75.5	72.7	72.7	72.7	71.8	68.1	70.0	70.0
37.5°	658.3	625.2	218.2	70.0	66.3	64.5	64.5	64.5	61.7	62.6	62.6
40°	714.5	671.2	174.0	65.4	61.7	57.1	55.2	56.2	54.3	54.3	53.4
42.5°	790.9	720.9	130.7	61.7	58.0	51.6	47.9	47.0	45.1	44.2	44.2
45°	900.5	781.7	93.9	58.0	55.2	45.1	41.4	38.7	34.1	31.3	31.3
47.5°	1042.3	850.7	70.0	54.3	52.5	39.6	35.0	29.5	23.0	21.2	21.2
50°	1215.3	928.1	58.9	48.8	47.9	35.0	27.6	19.3	12.9	11.0	12.0
52.5°	1383.8	1000.8	52.5	43.3	42.4	30.4	20.3	10.1	5.5	5.5	5.5
55°	1525.6	1052.4	47.9	38.7	36.8	23.9	11.0	4.6	2.8	2.8	2.8
57.5°	1653.6	1081.8	43.3	34.1	29.5	16.6	4.6	1.8	1.8	0.9	0.9
60°	1770.5	1099.3	37.7	29.5	23.0	9.2	1.8	0.9	0.9	0.0	0.0
62.5°	1885.6	1112.2	32.2	23.9	17.5	3.7	0.9	0.9	0.0	0.0	0.0
65°	1973.1	1107.6	25.8	19.3	11.0	1.8	0.9	0.0	0.0	0.0	0.0
67.5°	1970.3	1045.0	19.3	14.7	5.5	0.9	0.0	0.0	0.0	0.0	0.0
70°	1762.3	880.2	12.9	9.2	1.8	0.9	0.0	0.0	0.0	0.0	0.0
72.5°	1250.3	564.4	8.3	5.5	0.9	0.0	0.0	0.0	0.0	0.0	0.0
75°	550.6	171.3	4.6	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	107.7	39.6	2.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	25.8	4.6	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	11.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.8	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.8	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)