

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: P265903

Luminaire Tested: **ARCH-AF16-50-D-U-T4W-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265903
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-AF16-50-D-U-T4W-7027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 980mA LIGHT ENGINE WITH 16 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3671.7 lumens
Efficiency: N/A
Efficacy: 69.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B0 - U0 - G2

Input Watts (W): 53
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

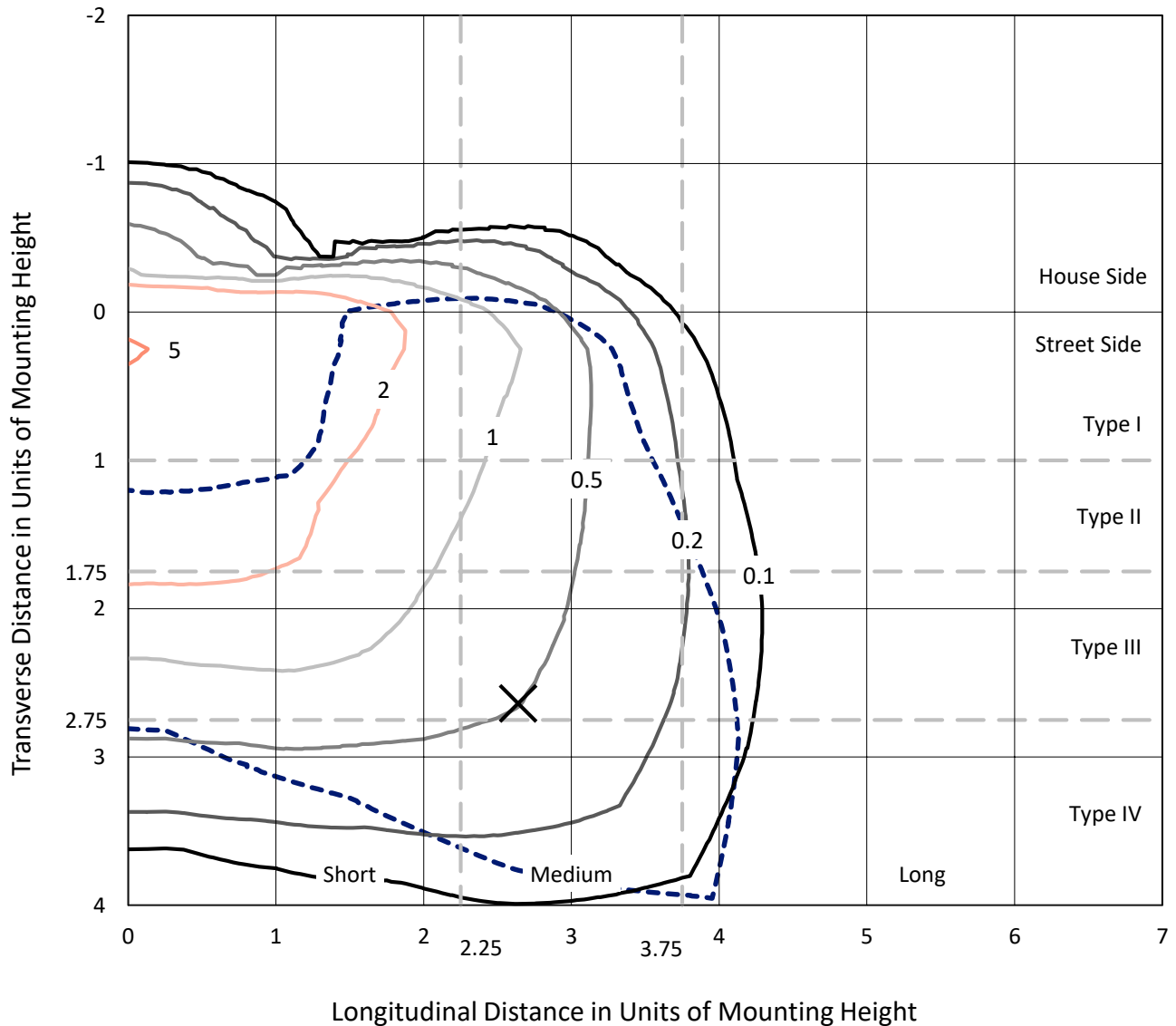


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

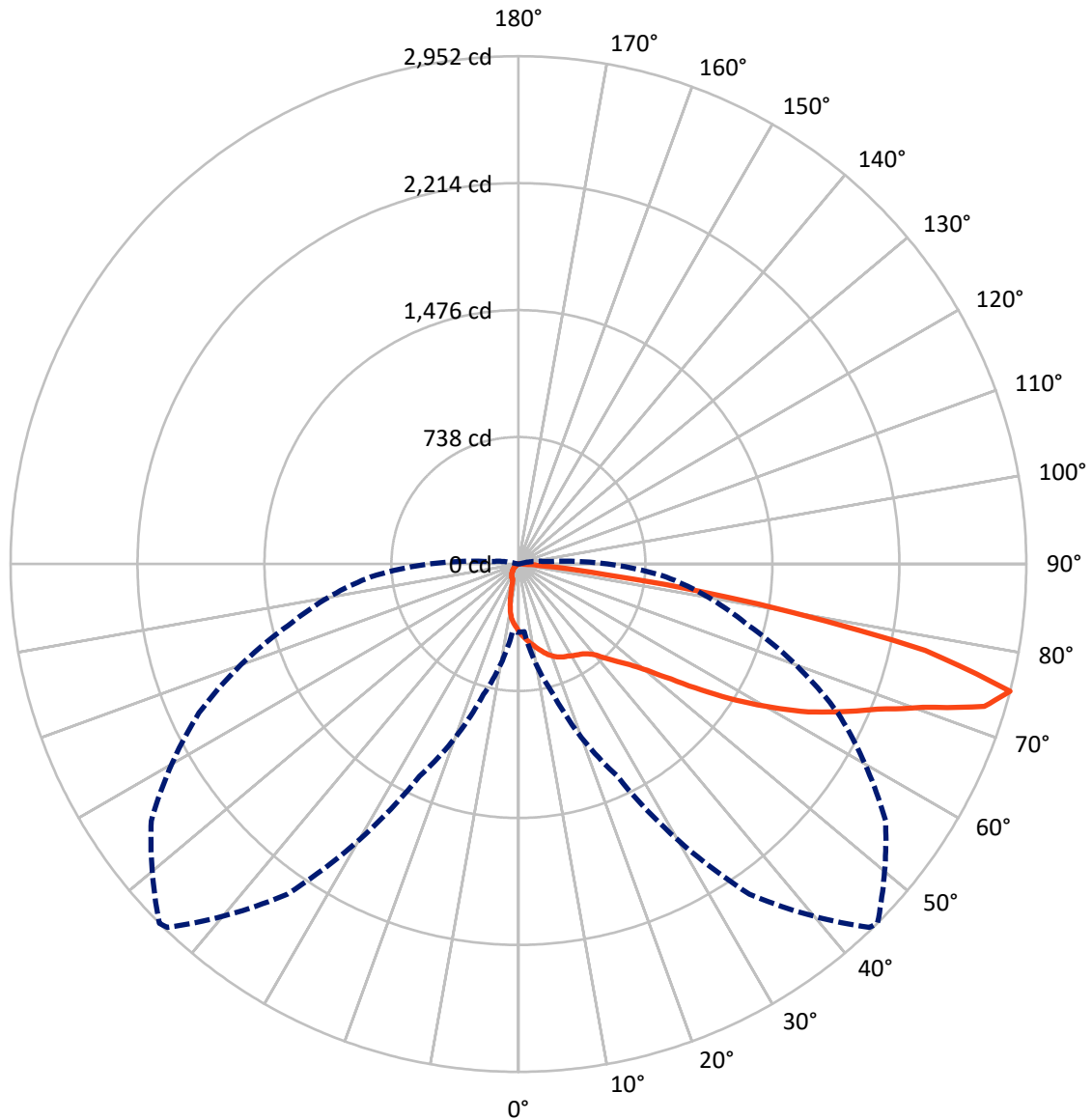


Based on 10 foot mounting height. Maximum calculated value = 5.2 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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



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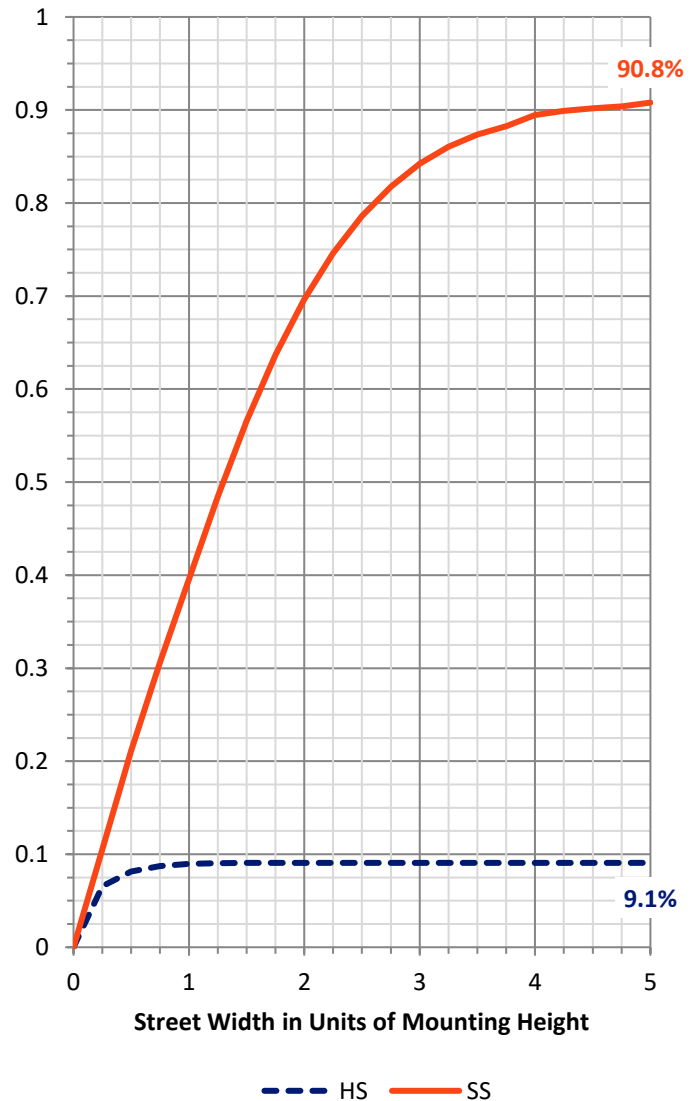
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	335.8	0.0	335.8
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	3335.9	0.0	3335.9
	% Fixture	90.9	0.0	90.9
Total	Lumens	3671.7	0.0	3671.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.1	1.0
10°-20°	105.0	2.9
20°-30°	173.9	4.7
30°-40°	251.7	6.9
40°-50°	412.1	11.2
50°-60°	734.3	20.0
60°-70°	1079.5	29.4
70°-80°	814.4	22.2
80°-90°	63.9	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°	3671.7	100.0
0°-180°	3671.7	100.0



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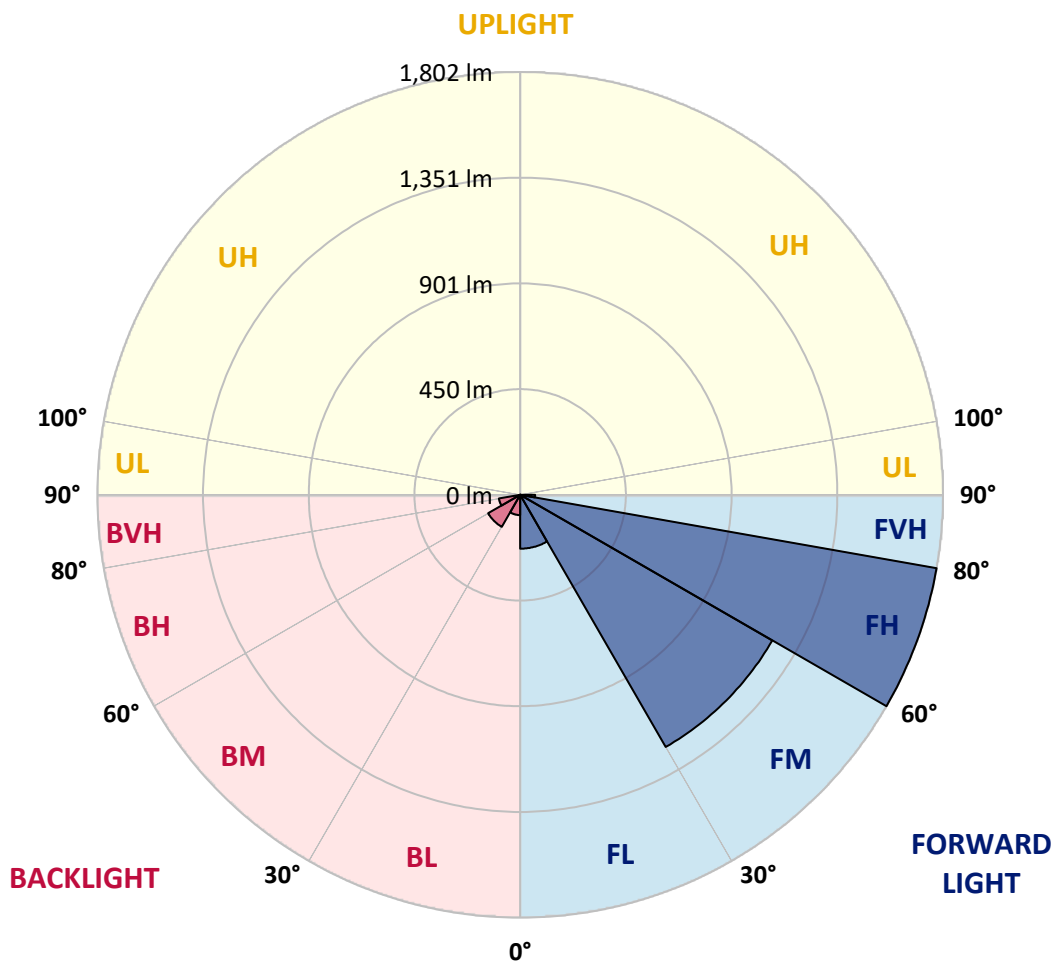
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	229.7	6.3			
FM	(30°-60°)	1240.7	33.8			
FH	(60°-80°)	1801.8	49.1			G2/5000
FVH	(80°-90°)	63.7	1.7			G1/100
BL	(0°-30°)	86.3	2.4	B0/110		
BM	(30°-60°)	157.4	4.3	B0/220		
BH	(60°-80°)	92.0	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°	392.6	392.6	392.6	392.6	392.6	392.6	392.6	392.6	392.6	392.6	392.6
2.5°	426.5	426.5	425.7	424.9	420.4	416.2	415.2	412.7	404.9	399.7	394.4
5°	462.2	463.0	461.4	457.0	447.4	438.0	437.0	430.1	415.2	404.9	393.5
7.5°	496.1	497.8	493.4	485.7	474.3	460.6	459.7	446.5	427.5	412.7	396.2
10°	524.8	524.8	518.7	509.1	496.9	482.2	480.5	465.7	443.9	425.7	404.0
12.5°	556.1	555.2	546.4	533.5	519.6	505.7	504.8	486.5	465.7	442.2	415.2
15°	584.7	583.0	571.7	559.6	544.7	530.0	529.1	510.9	489.1	461.4	431.8
17.5°	600.3	599.4	589.1	576.9	564.8	553.4	552.5	533.5	510.0	481.3	448.3
20°	602.9	603.8	595.1	584.7	577.8	571.7	571.7	554.3	529.1	498.6	465.7
22.5°	603.8	606.4	600.3	586.5	584.7	585.5	587.3	573.4	547.3	518.7	483.9
25°	609.9	613.5	609.1	592.5	590.8	596.8	598.6	592.5	569.0	540.4	504.8
27.5°	622.0	625.6	622.0	601.2	598.6	604.6	606.4	609.9	592.5	561.4	526.4
30°	646.4	647.3	639.5	613.5	608.2	616.0	618.7	628.2	614.4	581.3	547.3
32.5°	689.0	680.2	656.8	622.0	617.8	626.4	629.1	639.5	634.3	600.3	569.0
35°	775.9	730.7	676.9	634.3	629.9	638.5	642.1	656.8	659.4	627.2	596.0
37.5°	775.0	734.2	723.8	657.6	651.6	657.6	662.1	680.2	690.7	662.9	635.1
40°	829.8	812.3	812.3	702.0	682.1	690.7	695.1	713.3	731.6	709.8	681.2
42.5°	1001.8	990.6	978.3	787.2	724.7	748.9	751.5	762.8	784.6	777.7	743.6
45°	1193.8	1183.3	1136.4	931.5	797.5	801.9	808.0	826.3	857.5	870.5	830.7
47.5°	1344.0	1333.7	1293.6	1105.2	911.4	873.2	873.2	908.7	957.5	990.6	952.3
50°	1464.9	1452.6	1428.3	1290.2	1098.2	975.6	970.4	1012.2	1084.3	1135.5	1109.4
52.5°	1582.2	1546.5	1531.7	1481.3	1309.3	1124.3	1110.3	1139.9	1239.8	1303.3	1281.5
55°	1660.3	1655.0	1639.4	1656.8	1530.9	1305.0	1292.8	1298.9	1424.1	1466.7	1439.7
57.5°	1733.3	1732.4	1767.1	1848.1	1772.4	1511.8	1492.7	1483.1	1602.0	1591.6	1615.2
60°	1823.6	1808.0	1888.9	2004.4	1994.0	1713.3	1691.6	1672.6	1738.5	1708.9	1825.4
62.5°	1828.1	1823.6	1987.9	2153.9	2213.8	1918.4	1893.2	1824.5	1857.5	1823.6	2026.0
65°	1662.0	1683.9	2029.6	2232.8	2397.9	2098.3	2067.8	1960.9	1963.5	1941.0	2262.4
67.5°	1624.8	1636.1	1914.8	2318.0	2531.0	2279.8	2251.2	2118.3	2086.9	2088.6	2402.2
70°	1531.7	1549.1	1772.4	2312.0	2636.0	2522.3	2493.5	2349.2	2273.7	2189.4	2294.6
72.5°	1170.3	1199.9	1493.5	2026.9	2607.4	2839.4	2831.5	2642.2	2348.4	2010.4	1736.0
75°	396.2	395.3	784.6	1361.4	2342.4	2936.6	2952.3	2605.7	2048.8	1386.7	861.8
77.5°	85.2	86.0	161.7	551.6	1556.0	2358.1	2418.0	1965.3	1321.4	617.8	197.2
80°	41.7	42.6	67.0	146.0	622.0	1322.3	1416.2	1010.5	488.3	123.3	33.0
82.5°	20.8	21.6	34.8	77.3	230.2	470.1	502.2	371.9	139.9	69.4	16.4
85°	7.8	7.8	17.3	46.1	105.1	110.3	135.6	107.7	84.4	56.5	4.3
87.5°	1.7	1.7	9.5	22.5	46.9	34.8	34.8	33.0	51.3	38.2	1.7
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°	392.6	392.6	392.6	392.6	392.6	392.6	392.6	392.6	392.6	392.6	392.6
2.5°	391.8	388.3	382.3	376.2	371.9	366.7	364.1	361.5	360.6	359.7	361.5
5°	387.4	382.3	371.0	361.5	352.8	345.8	340.5	335.3	332.7	331.0	332.0
7.5°	387.4	379.7	363.2	348.5	334.4	319.7	305.0	293.7	285.0	279.7	280.6
10°	391.8	381.4	359.7	339.6	313.7	282.3	250.2	226.0	209.3	199.9	199.9
12.5°	401.5	387.4	360.6	329.3	285.0	230.2	181.5	152.1	139.9	132.9	133.8
15°	414.5	397.9	364.9	315.3	245.0	171.1	126.8	107.7	107.7	109.5	110.3
17.5°	429.2	411.0	368.3	294.6	193.8	122.4	99.9	98.2	100.8	105.1	105.1
20°	443.9	424.0	370.1	261.5	145.0	97.2	94.7	94.7	96.5	100.8	101.7
22.5°	462.2	440.4	368.3	220.7	108.7	92.0	91.2	91.2	91.2	96.5	96.5
25°	481.3	459.7	361.5	177.2	92.0	88.7	87.8	86.9	86.9	91.2	92.0
27.5°	503.1	479.5	344.9	135.6	86.9	85.2	84.4	82.6	82.6	86.0	86.0
30°	524.8	502.2	319.7	102.5	82.6	81.7	79.9	78.2	76.4	79.9	79.9
32.5°	548.2	525.7	286.6	81.7	76.4	76.4	75.5	73.0	71.2	73.0	73.8
35°	579.4	552.5	249.4	71.2	68.6	68.6	68.6	67.7	64.3	66.0	66.0
37.5°	621.2	589.9	205.9	66.0	62.5	60.8	60.8	60.8	58.2	59.1	59.1
40°	674.2	633.3	164.2	61.8	58.2	53.9	52.1	53.0	51.3	51.3	50.3
42.5°	746.3	680.2	123.3	58.2	54.7	48.7	45.2	44.2	42.6	41.7	41.7
45°	849.6	737.7	88.7	54.7	52.1	42.6	39.0	36.6	32.2	29.6	29.6
47.5°	983.6	802.7	66.0	51.3	49.5	37.4	33.0	27.8	21.6	20.0	20.0
50°	1146.9	875.8	55.7	46.1	45.2	33.0	26.1	18.2	12.1	10.4	11.3
52.5°	1305.9	944.4	49.5	40.9	40.0	28.7	19.1	9.5	5.2	5.2	5.2
55°	1439.7	993.0	45.2	36.6	34.8	22.5	10.4	4.3	2.6	2.6	2.6
57.5°	1560.4	1020.8	40.9	32.2	27.8	15.6	4.3	1.7	1.7	0.9	0.9
60°	1670.8	1037.5	35.7	27.8	21.6	8.8	1.7	0.9	0.9	0.0	0.0
62.5°	1779.4	1049.5	30.5	22.5	16.4	3.5	0.9	0.9	0.0	0.0	0.0
65°	1861.8	1045.2	24.3	18.2	10.4	1.7	0.9	0.0	0.0	0.0	0.0
67.5°	1859.3	986.1	18.2	14.0	5.2	0.9	0.0	0.0	0.0	0.0	0.0
70°	1662.9	830.7	12.1	8.8	1.7	0.9	0.0	0.0	0.0	0.0	0.0
72.5°	1179.8	532.5	7.8	5.2	0.9	0.0	0.0	0.0	0.0	0.0	0.0
75°	519.6	161.7	4.3	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	101.7	37.4	2.6	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	24.3	4.3	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	10.4	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.6	0.9	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)