

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: P214786

Luminaire Tested: **ARCH-AF24-50-D-U-T3-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214786
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-AF24-50-D-U-T3-7030-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 670mA LIGHT ENGINE 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: 4204 lumens
Efficiency: N/A
Efficacy: 77.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 54
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

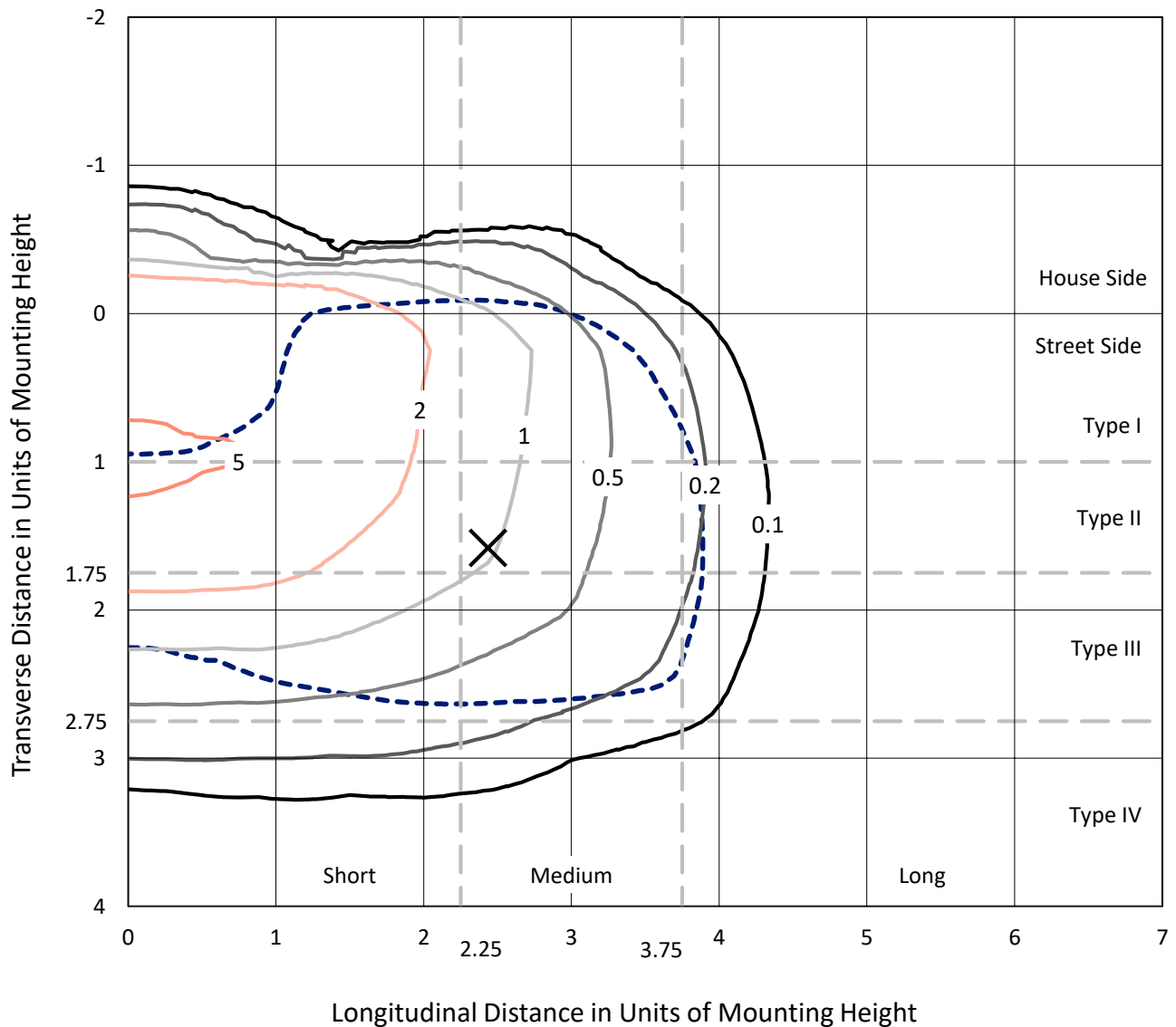


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

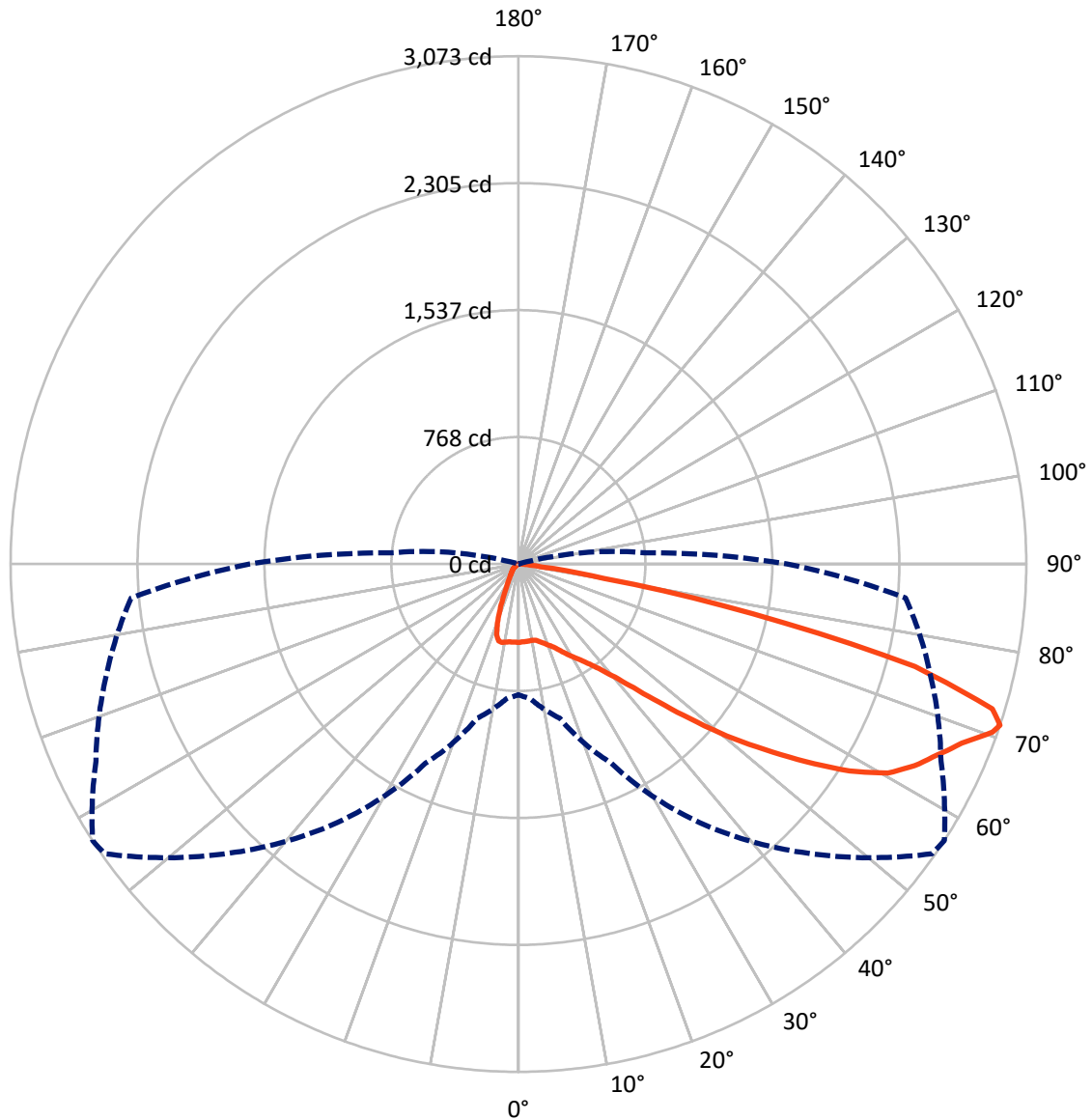


Based on 10 foot mounting height. Maximum calculated value = 5.9 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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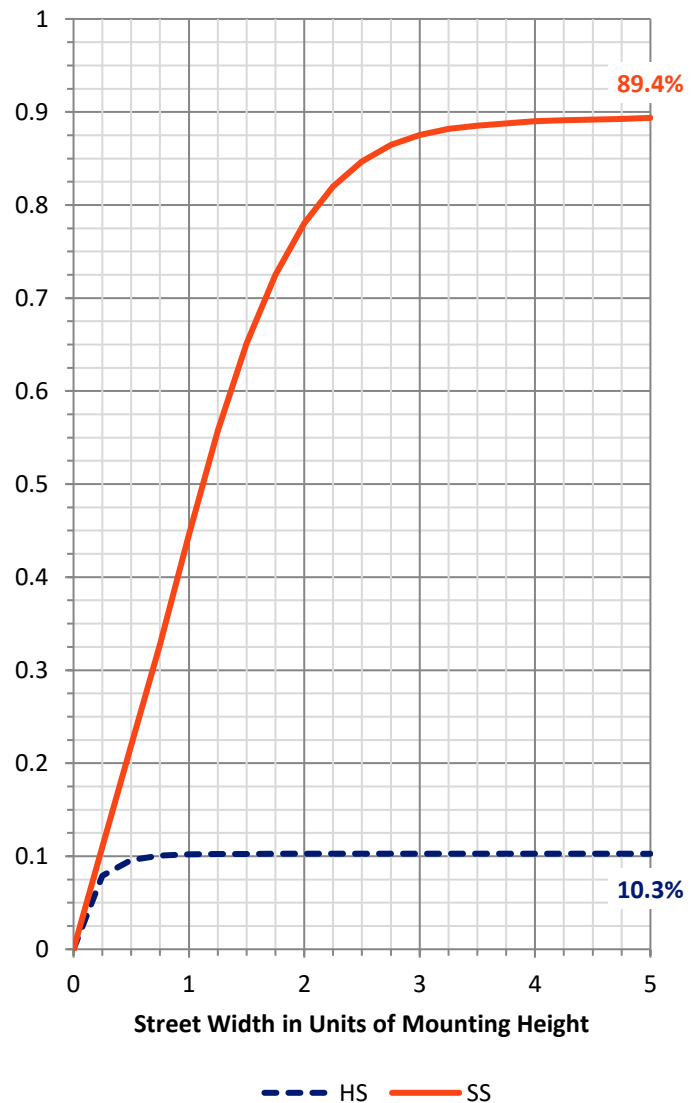
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	435.7	0.0	435.7
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	3768.3	0.0	3768.3
	% Fixture	89.6	0.0	89.6
Total	Lumens	4204.0	0.0	4204.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.6	1.1
10°-20°	119.3	2.8
20°-30°	186.1	4.4
30°-40°	314.6	7.5
40°-50°	610.9	14.5
50°-60°	1026.0	24.4
60°-70°	1224.4	29.1
70°-80°	645.3	15.3
80°-90°	32.8	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°	4204.0	100.0
0°-180°	4204.0	100.0



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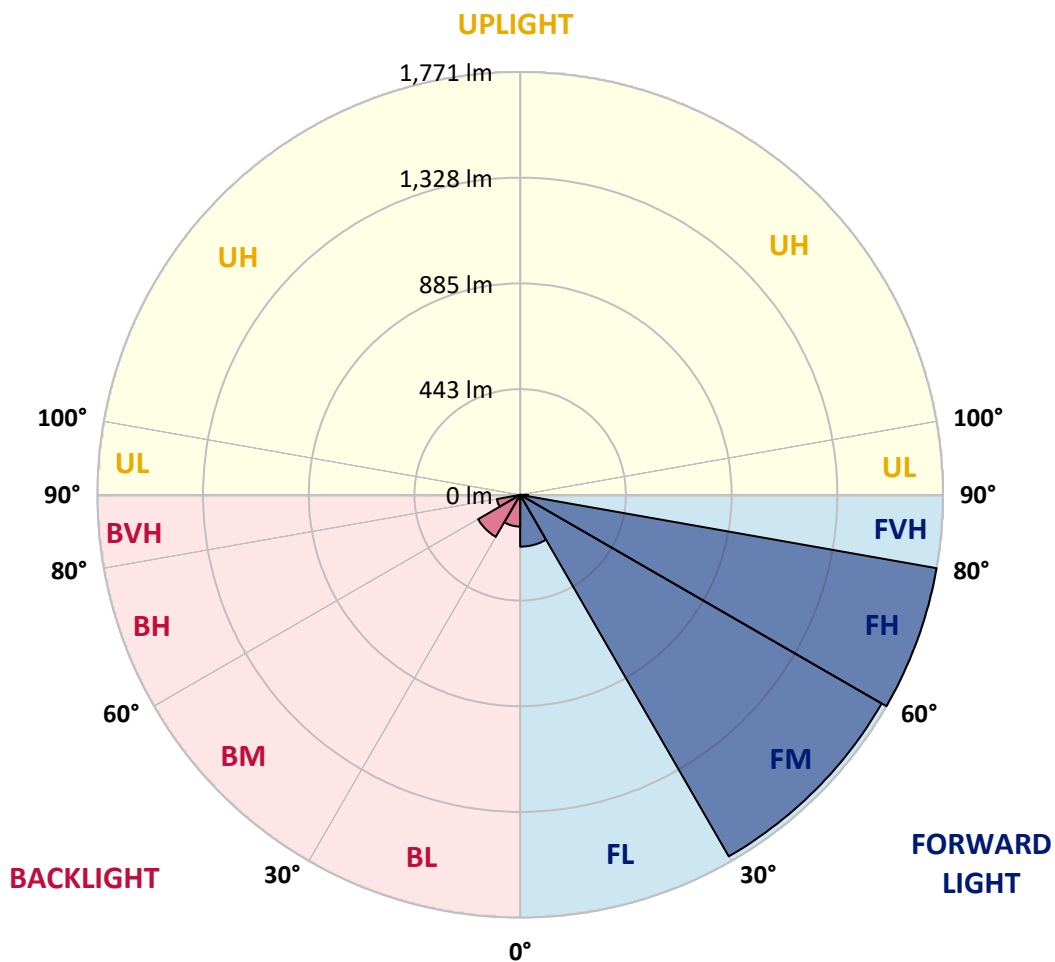
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	217.0	5.2			
FM	(30°-60°)	1748.1	41.6			
FH	(60°-80°)	1770.8	42.1			G1/1800
FVH	(80°-90°)	32.5	0.8			G1/100
BL	(0°-30°)	133.0	3.2	B1/500		
BM	(30°-60°)	203.4	4.8	B0/220		
BH	(60°-80°)	98.9	2.4	B0/110		G0/110
BVH	(80°-90°)	0.3	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	475.1	475.1	475.1	475.1	475.1	475.1	475.1	475.1	475.1	475.1	475.1
2.5°	468.3	468.3	468.3	469.2	470.2	470.2	472.2	471.2	471.2	471.2	473.2
5°	455.5	456.5	457.5	459.4	463.4	466.3	471.2	471.2	472.2	474.1	475.1
7.5°	437.9	438.9	441.8	445.7	453.6	460.4	468.3	470.2	473.2	478.1	480.0
10°	427.1	429.1	433.0	437.9	446.7	455.5	465.3	468.3	477.1	485.9	490.8
12.5°	424.2	425.2	429.1	436.9	447.7	458.5	471.2	474.1	486.9	500.6	508.4
15°	429.1	430.1	432.0	440.8	453.6	467.3	483.9	487.9	503.5	519.2	529.0
17.5°	437.9	437.9	439.8	447.7	461.4	477.1	498.6	504.5	522.1	539.8	550.5
20°	443.8	443.8	446.7	454.5	470.2	490.8	516.3	524.1	543.7	563.3	573.1
22.5°	449.6	450.6	453.6	462.4	480.0	508.4	537.8	545.6	568.2	588.8	598.5
25°	466.3	465.3	466.3	474.1	494.7	530.0	567.2	577.0	600.5	623.0	627.9
27.5°	512.3	510.4	497.6	492.7	508.4	552.5	604.4	614.2	641.7	664.2	664.2
30°	618.1	614.2	582.9	542.7	530.0	573.1	639.7	653.4	688.7	708.3	702.4
32.5°	752.3	743.5	703.4	634.8	583.9	600.5	676.9	692.6	737.7	754.3	741.6
35°	899.3	898.3	848.4	760.2	687.7	657.3	724.9	743.5	800.3	815.0	794.5
37.5°	1055.1	1059.0	1025.7	904.2	819.0	750.4	788.6	810.1	879.7	897.3	877.7
40°	1228.4	1227.5	1214.7	1070.7	976.7	882.6	880.7	900.3	984.5	1011.9	984.5
42.5°	1447.9	1445.9	1399.9	1270.6	1167.7	1055.1	1014.9	1021.7	1115.8	1160.8	1120.7
45°	1671.2	1657.5	1604.6	1492.9	1401.8	1268.6	1192.2	1192.2	1272.5	1334.2	1271.5
47.5°	1795.6	1781.9	1760.4	1698.7	1671.2	1522.3	1409.7	1396.0	1458.7	1521.3	1433.2
50°	1959.2	1959.2	1905.4	1881.9	1928.9	1824.1	1649.7	1636.0	1666.3	1716.3	1600.7
52.5°	2088.6	2065.0	2026.8	2047.4	2181.6	2133.6	1889.7	1863.2	1886.7	1899.5	1746.7
55°	2142.4	2119.9	2117.0	2192.4	2400.1	2333.5	2135.6	2112.1	2110.1	2047.4	1874.0
57.5°	2153.2	2133.6	2170.8	2303.1	2612.6	2497.1	2380.5	2362.8	2308.0	2151.2	2004.3
60°	2062.1	2071.9	2162.0	2363.8	2738.0	2639.1	2587.2	2568.6	2442.2	2239.4	2149.3
62.5°	1875.0	1898.5	2067.0	2369.7	2692.0	2696.9	2701.8	2689.1	2546.0	2319.7	2295.2
65°	1653.6	1660.5	1863.2	2288.4	2611.7	2679.3	2786.0	2785.1	2625.4	2409.9	2459.8
67.5°	1362.7	1374.4	1549.8	2014.1	2451.0	2671.4	2896.7	2893.8	2715.5	2512.7	2557.8
70°	1013.9	1028.6	1170.6	1566.4	2092.5	2573.5	3041.7	3043.7	2810.5	2591.1	2490.2
71°	790.6	817.0	965.9	1330.3	1909.3	2474.5	3055.4	3073.1	2821.3	2580.3	2351.1
72.5°	387.9	419.3	606.4	936.5	1571.3	2253.1	2965.3	2999.6	2753.7	2446.1	2010.2
75°	100.9	106.8	181.2	383.0	842.5	1492.9	2391.3	2478.4	2251.2	1862.3	1228.4
77.5°	63.7	65.6	85.2	148.9	315.4	567.2	1404.8	1447.9	1286.2	943.4	433.0
80°	45.1	46.0	53.9	96.0	184.2	165.6	505.5	524.1	465.3	249.8	77.4
82.5°	27.4	27.4	39.2	61.7	113.6	90.1	133.2	142.0	125.4	69.6	25.5
85°	15.7	16.7	24.5	42.1	53.9	44.1	50.0	52.9	53.9	46.0	10.8
87.5°	12.7	13.7	21.6	35.3	29.4	21.6	21.6	22.5	23.5	27.4	4.9
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°	475.1	475.1	475.1	475.1	475.1	475.1	475.1	475.1	475.1	475.1	475.1
2.5°	473.2	473.2	474.1	473.2	473.2	473.2	474.1	474.1	474.1	476.1	477.1
5°	475.1	475.1	475.1	474.1	473.2	473.2	475.1	476.1	476.1	479.0	479.0
7.5°	480.0	480.0	478.1	476.1	474.1	471.2	472.2	473.2	472.2	473.2	473.2
10°	490.8	490.8	487.9	483.9	478.1	469.2	457.5	442.8	429.1	424.2	422.2
12.5°	508.4	507.4	501.6	494.7	482.0	451.6	407.5	355.6	312.5	300.7	296.8
15°	528.0	526.1	519.2	507.4	473.2	392.8	300.7	234.1	193.0	183.2	181.2
17.5°	548.6	545.6	535.9	512.3	433.0	291.9	194.0	146.9	124.4	122.5	123.4
20°	570.1	566.2	552.5	502.5	349.7	194.9	125.4	113.6	111.7	111.7	112.7
22.5°	594.6	589.7	571.1	467.3	254.7	129.3	107.8	106.8	105.8	104.8	104.8
25°	623.0	617.2	588.8	403.6	175.4	105.8	102.9	99.9	98.0	96.0	95.0
27.5°	657.3	649.5	602.5	325.2	120.5	98.9	97.0	92.1	88.2	84.2	84.2
30°	691.6	681.8	598.5	244.9	98.0	92.1	88.2	82.3	76.4	72.5	71.5
32.5°	727.9	718.1	573.1	164.6	89.1	84.2	79.3	70.5	63.7	58.8	57.8
35°	781.7	773.9	523.1	108.7	80.3	74.5	67.6	58.8	50.0	45.1	44.1
37.5°	862.1	852.3	461.4	83.3	70.5	61.7	55.8	46.0	37.2	32.3	31.3
40°	969.8	940.4	387.9	73.5	61.7	50.9	43.1	33.3	26.4	23.5	23.5
42.5°	1095.2	1025.7	308.6	66.6	54.9	42.1	31.3	22.5	18.6	17.6	17.6
45°	1228.4	1105.0	229.2	61.7	48.0	33.3	22.5	15.7	13.7	12.7	12.7
47.5°	1365.6	1169.7	159.7	55.8	40.2	25.5	15.7	11.8	9.8	8.8	8.8
50°	1493.9	1211.8	112.7	50.0	34.3	18.6	11.8	8.8	6.9	6.9	6.9
52.5°	1583.1	1207.9	81.3	43.1	26.4	12.7	7.8	5.9	5.9	5.9	5.9
55°	1661.4	1193.2	63.7	37.2	20.6	8.8	5.9	4.9	4.9	3.9	3.9
57.5°	1728.0	1169.7	53.9	30.4	14.7	6.9	3.9	3.9	2.9	2.9	2.9
60°	1784.9	1140.3	45.1	25.5	9.8	4.9	2.9	2.0	2.0	1.0	2.0
62.5°	1862.3	1121.7	39.2	19.6	6.9	2.9	2.0	1.0	1.0	0.0	0.0
65°	1919.1	1086.4	33.3	13.7	3.9	2.0	1.0	1.0	0.0	0.0	0.0
67.5°	1921.0	1022.7	24.5	7.8	2.9	2.0	1.0	0.0	0.0	0.0	0.0
70°	1766.3	871.9	15.7	3.9	2.0	1.0	1.0	0.0	0.0	0.0	0.0
71°	1624.2	771.9	12.7	2.9	2.0	1.0	0.0	0.0	0.0	0.0	0.0
72.5°	1338.2	567.2	9.8	2.9	1.0	1.0	0.0	0.0	0.0	0.0	0.0
75°	737.7	205.7	4.9	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	236.1	62.7	2.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	40.2	9.8	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	13.7	3.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.9	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.0	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)