

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: P234736

Luminaire Tested: **ARCH-AF24-90-D-U-T3-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234736
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-AF24-90-D-U-T3-8027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 1180mA 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: 5471 lumens
Efficiency: N/A
Efficacy: 58.2 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 - G2

Input Watts (W): 94
Input Voltage (V): NR
Input Current (A_{in}): 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

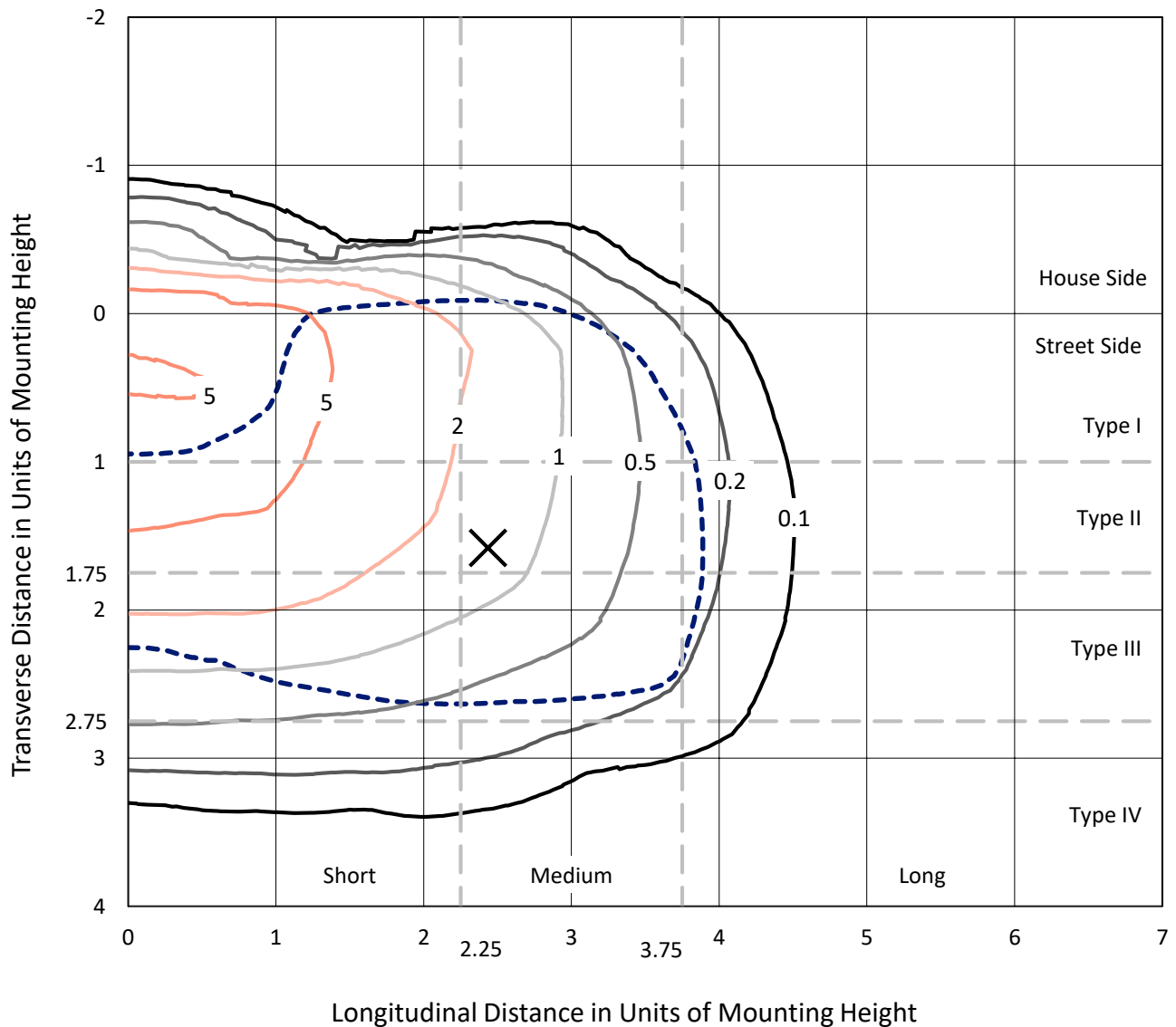


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

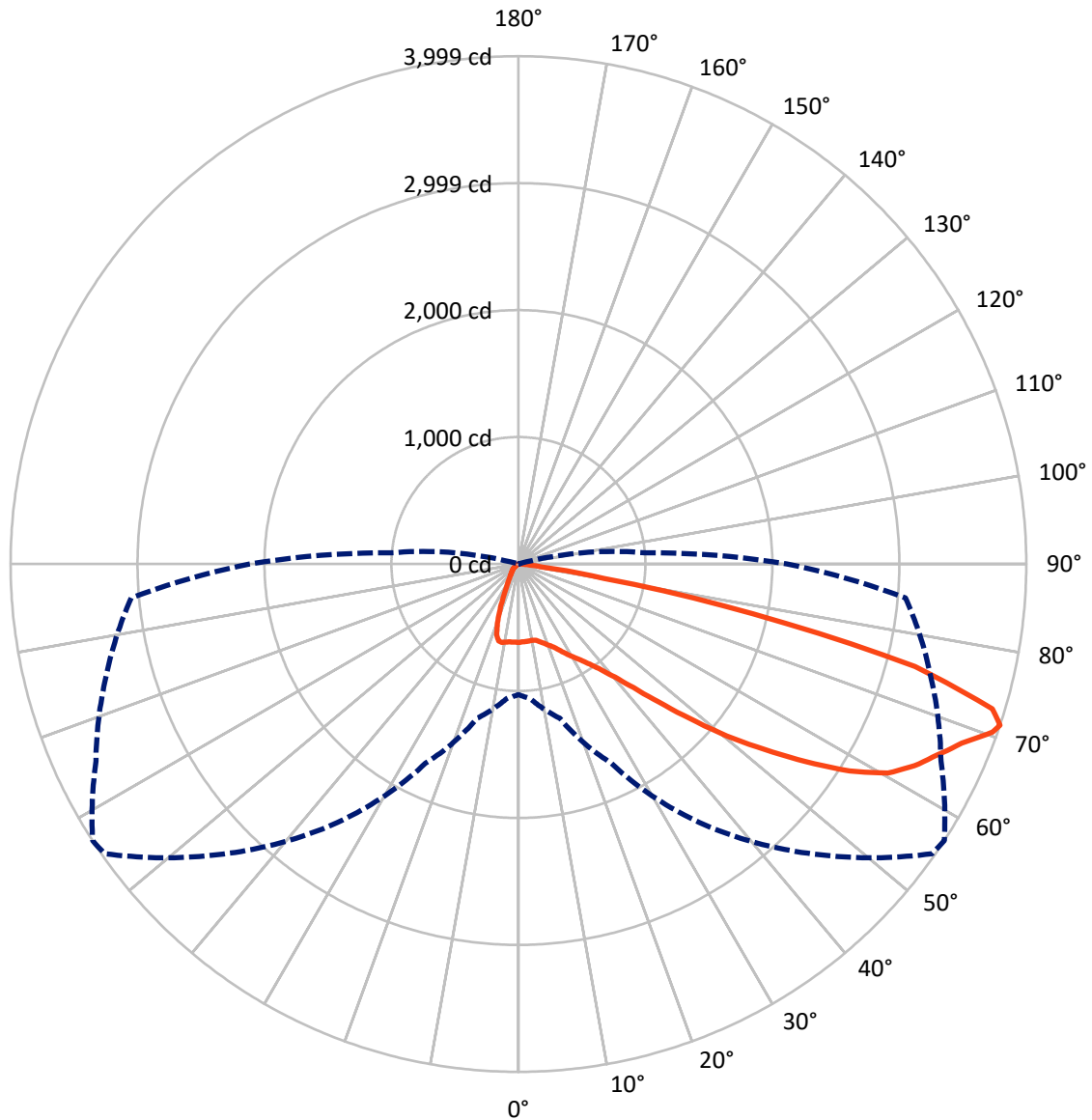


Based on 10 foot mounting height. Maximum calculated value = 7.7 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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



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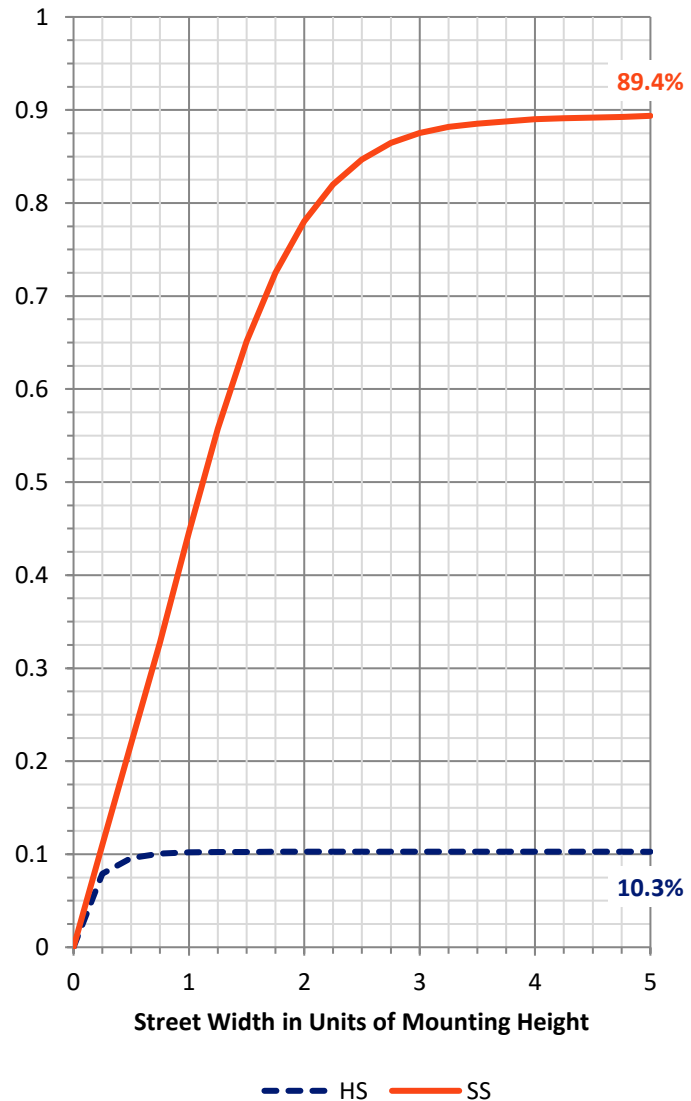
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	567.0	0.0	567.0
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	4904.0	0.0	4904.0
	% Fixture	89.6	0.0	89.6
Total	Lumens	5471.0	0.0	5471.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.1	1.1
10°-20°	155.3	2.8
20°-30°	242.2	4.4
30°-40°	409.4	7.5
40°-50°	795.1	14.5
50°-60°	1335.2	24.4
60°-70°	1593.4	29.1
70°-80°	839.8	15.3
80°-90°	42.7	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°	5471.0	100.0
0°-180°	5471.0	100.0

Coefficient of Utilization



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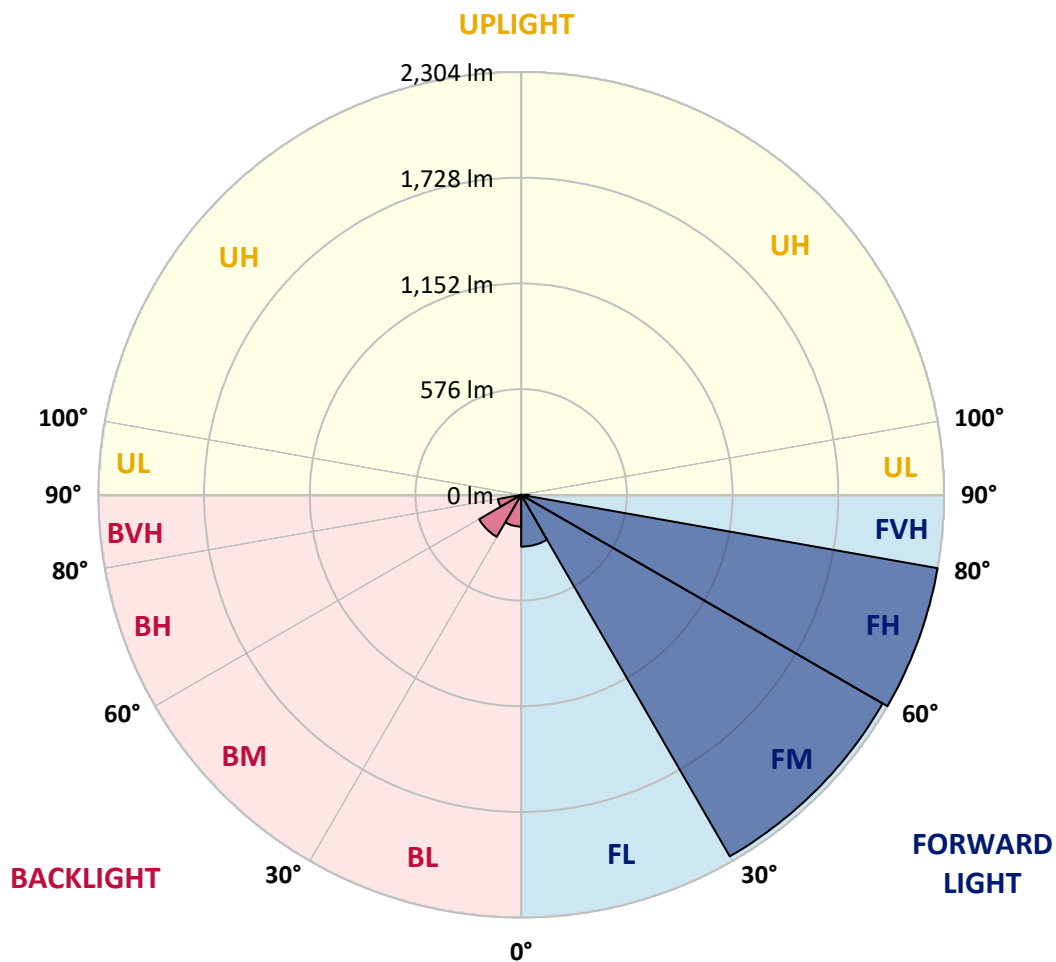
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	282.5	5.2			
FM	(30°-60°)	2274.9	41.6			
FH	(60°-80°)	2304.4	42.1			G2/5000
FVH	(80°-90°)	42.3	0.8			G1/100
BL	(0°-30°)	173.1	3.2	B1/500		
BM	(30°-60°)	264.7	4.8	B1/1000		
BH	(60°-80°)	128.7	2.4	B1/500		G1/500
BVH	(80°-90°)	0.4	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-G2

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	618.3	618.3	618.3	618.3	618.3	618.3	618.3	618.3	618.3	618.3	618.3
2.5°	609.4	609.4	609.4	610.7	611.9	611.9	614.5	613.2	613.2	613.2	615.8
5°	592.8	594.1	595.4	597.9	603.0	606.8	613.2	613.2	614.5	617.0	618.3
7.5°	569.9	571.1	575.0	580.1	590.3	599.2	609.4	611.9	615.8	622.1	624.7
10°	555.8	558.4	563.5	569.9	581.3	592.8	605.6	609.4	620.9	632.3	638.7
12.5°	552.0	553.3	558.4	568.6	582.6	596.6	613.2	617.0	633.6	651.5	661.7
15°	558.4	559.7	562.2	573.7	590.3	608.1	629.8	634.9	655.3	675.7	688.4
17.5°	569.9	569.9	572.4	582.6	600.5	620.9	648.9	656.6	679.5	702.4	716.5
20°	577.5	577.5	581.3	591.5	611.9	638.7	671.8	682.0	707.5	733.0	745.8
22.5°	585.2	586.4	590.3	601.7	624.7	661.7	699.9	710.1	739.4	766.2	778.9
25°	606.8	605.6	606.8	617.0	643.8	689.7	738.1	750.9	781.5	810.8	817.2
27.5°	666.8	664.2	647.6	641.3	661.7	719.0	786.6	799.3	835.0	864.4	864.4
30°	804.4	799.3	758.5	706.3	689.7	745.8	832.5	850.3	896.2	921.7	914.1
32.5°	979.1	967.6	915.3	826.1	759.8	781.5	880.9	901.3	960.0	981.6	965.1
35°	1170.3	1169.0	1104.0	989.3	895.0	855.4	943.4	967.6	1041.6	1060.7	1033.9
37.5°	1373.0	1378.1	1334.8	1176.7	1065.8	976.5	1026.3	1054.3	1144.8	1167.8	1142.3
40°	1598.7	1597.4	1580.8	1393.4	1271.0	1148.6	1146.1	1171.6	1281.2	1316.9	1281.2
42.5°	1884.2	1881.7	1821.8	1653.5	1519.6	1373.0	1320.8	1329.7	1452.1	1510.7	1458.4
45°	2174.9	2157.1	2088.2	1942.9	1824.3	1650.9	1551.5	1551.5	1656.0	1736.4	1654.8
47.5°	2336.8	2319.0	2290.9	2210.6	2174.9	1981.1	1834.5	1816.7	1898.3	1979.9	1865.1
50°	2549.7	2549.7	2479.6	2449.0	2510.2	2373.8	2146.9	2129.0	2168.5	2233.6	2083.1
52.5°	2718.0	2687.4	2637.7	2664.5	2839.1	2776.6	2459.2	2424.8	2455.4	2471.9	2273.1
55°	2788.1	2758.8	2755.0	2853.1	3123.4	3036.7	2779.2	2748.6	2746.0	2664.5	2438.8
57.5°	2802.1	2776.6	2825.1	2997.2	3400.0	3249.6	3097.9	3075.0	3003.6	2799.6	2608.4
60°	2683.6	2696.3	2813.6	3076.2	3563.2	3434.5	3366.9	3342.7	3178.2	2914.3	2797.0
62.5°	2440.1	2470.7	2689.9	3083.9	3503.3	3509.7	3516.1	3499.5	3313.4	3018.9	2987.0
65°	2152.0	2160.9	2424.8	2978.1	3398.8	3486.7	3625.7	3624.4	3416.6	3136.1	3201.2
67.5°	1773.3	1788.6	2016.8	2621.1	3189.7	3476.5	3769.8	3765.9	3533.9	3270.0	3328.7
70°	1319.5	1338.6	1523.5	2038.5	2723.1	3349.1	3958.4	3961.0	3657.6	3372.0	3240.7
71°	1028.8	1063.2	1257.0	1731.3	2484.7	3220.3	3976.3	3999.2	3671.6	3358.0	3059.7
72.5°	504.8	545.6	789.1	1218.8	2044.9	2932.2	3859.0	3903.6	3583.6	3183.3	2616.0
75°	131.3	139.0	235.8	498.5	1096.4	1942.9	3111.9	3225.4	2929.6	2423.5	1598.7
77.5°	82.9	85.4	110.9	193.8	410.5	738.1	1828.1	1884.2	1673.9	1227.7	563.5
80°	58.6	59.9	70.1	124.9	239.7	215.5	657.8	682.0	605.6	325.1	100.7
82.5°	35.7	35.7	51.0	80.3	147.9	117.3	173.4	184.9	163.2	90.5	33.1
85°	20.4	21.7	31.9	54.8	70.1	57.4	65.0	68.8	70.1	59.9	14.0
87.5°	16.6	17.8	28.0	45.9	38.2	28.0	28.0	29.3	30.6	35.7	6.4
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°	618.3	618.3	618.3	618.3	618.3	618.3	618.3	618.3	618.3	618.3	618.3
2.5°	615.8	615.8	617.0	615.8	615.8	615.8	617.0	617.0	617.0	619.6	620.9
5°	618.3	618.3	618.3	617.0	615.8	615.8	618.3	619.6	619.6	623.4	623.4
7.5°	624.7	624.7	622.1	619.6	617.0	613.2	614.5	615.8	614.5	615.8	615.8
10°	638.7	638.7	634.9	629.8	622.1	610.7	595.4	576.2	558.4	552.0	549.5
12.5°	661.7	660.4	652.7	643.8	627.2	587.7	530.3	462.8	406.7	391.4	386.3
15°	687.1	684.6	675.7	660.4	615.8	511.2	391.4	304.7	251.1	238.4	235.8
17.5°	713.9	710.1	697.3	666.8	563.5	379.9	252.4	191.2	161.9	159.4	160.6
20°	742.0	736.9	719.0	654.0	455.1	253.7	163.2	147.9	145.3	145.3	146.6
22.5°	773.8	767.5	743.2	608.1	331.5	168.3	140.2	139.0	137.7	136.4	136.4
25°	810.8	803.2	766.2	525.2	228.2	137.7	133.9	130.0	127.5	124.9	123.7
27.5°	855.4	845.2	784.0	423.3	156.8	128.8	126.2	119.8	114.7	109.6	109.6
30°	900.0	887.3	778.9	318.7	127.5	119.8	114.7	107.1	99.4	94.3	93.1
32.5°	947.2	934.5	745.8	214.2	116.0	109.6	103.3	91.8	82.9	76.5	75.2
35°	1017.3	1007.1	680.8	141.5	104.5	96.9	88.0	76.5	65.0	58.6	57.4
37.5°	1121.9	1109.1	600.5	108.4	91.8	80.3	72.7	59.9	48.4	42.1	40.8
40°	1262.1	1223.9	504.8	95.6	80.3	66.3	56.1	43.3	34.4	30.6	30.6
42.5°	1425.3	1334.8	401.6	86.7	71.4	54.8	40.8	29.3	24.2	22.9	22.9
45°	1598.7	1438.0	298.3	80.3	62.5	43.3	29.3	20.4	17.8	16.6	16.6
47.5°	1777.2	1522.2	207.8	72.7	52.3	33.1	20.4	15.3	12.7	11.5	11.5
50°	1944.2	1577.0	146.6	65.0	44.6	24.2	15.3	11.5	8.9	8.9	8.9
52.5°	2060.2	1571.9	105.8	56.1	34.4	16.6	10.2	7.6	7.6	7.6	7.6
55°	2162.2	1552.8	82.9	48.4	26.8	11.5	7.6	6.4	6.4	5.1	5.1
57.5°	2248.8	1522.2	70.1	39.5	19.1	8.9	5.1	5.1	3.8	3.8	3.8
60°	2322.8	1483.9	58.6	33.1	12.7	6.4	3.8	2.5	2.5	1.3	2.5
62.5°	2423.5	1459.7	51.0	25.5	8.9	3.8	2.5	1.3	1.3	0.0	0.0
65°	2497.4	1413.8	43.3	17.8	5.1	2.5	1.3	1.3	0.0	0.0	0.0
67.5°	2500.0	1331.0	31.9	10.2	3.8	2.5	1.3	0.0	0.0	0.0	0.0
70°	2298.6	1134.6	20.4	5.1	2.5	1.3	1.3	0.0	0.0	0.0	0.0
71°	2113.7	1004.6	16.6	3.8	2.5	1.3	0.0	0.0	0.0	0.0	0.0
72.5°	1741.5	738.1	12.7	3.8	1.3	1.3	0.0	0.0	0.0	0.0	0.0
75°	960.0	267.7	6.4	2.5	1.3	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	307.2	81.6	3.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	52.3	12.7	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	17.8	5.1	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.1	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.5	1.3	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)