

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: P265969

Luminaire Tested: **ARCH-AF24-80-D-U-T2R-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265969
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF24-80-D-U-T2R-7027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 1050mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6166.6 lumens
Efficiency: N/A
Efficacy: 74.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B0 - U0 - G1

Input Watts (W): 83
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

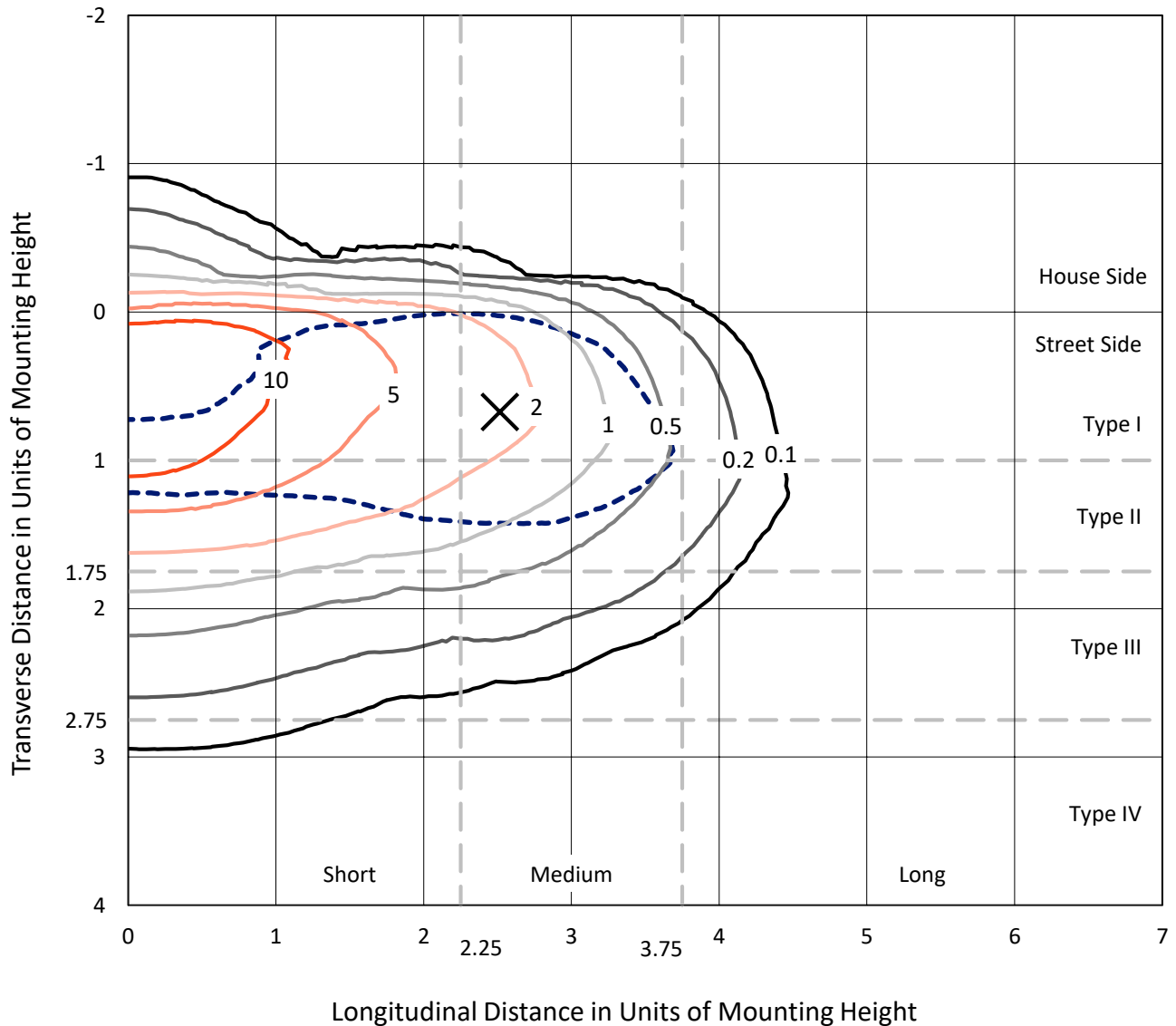


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

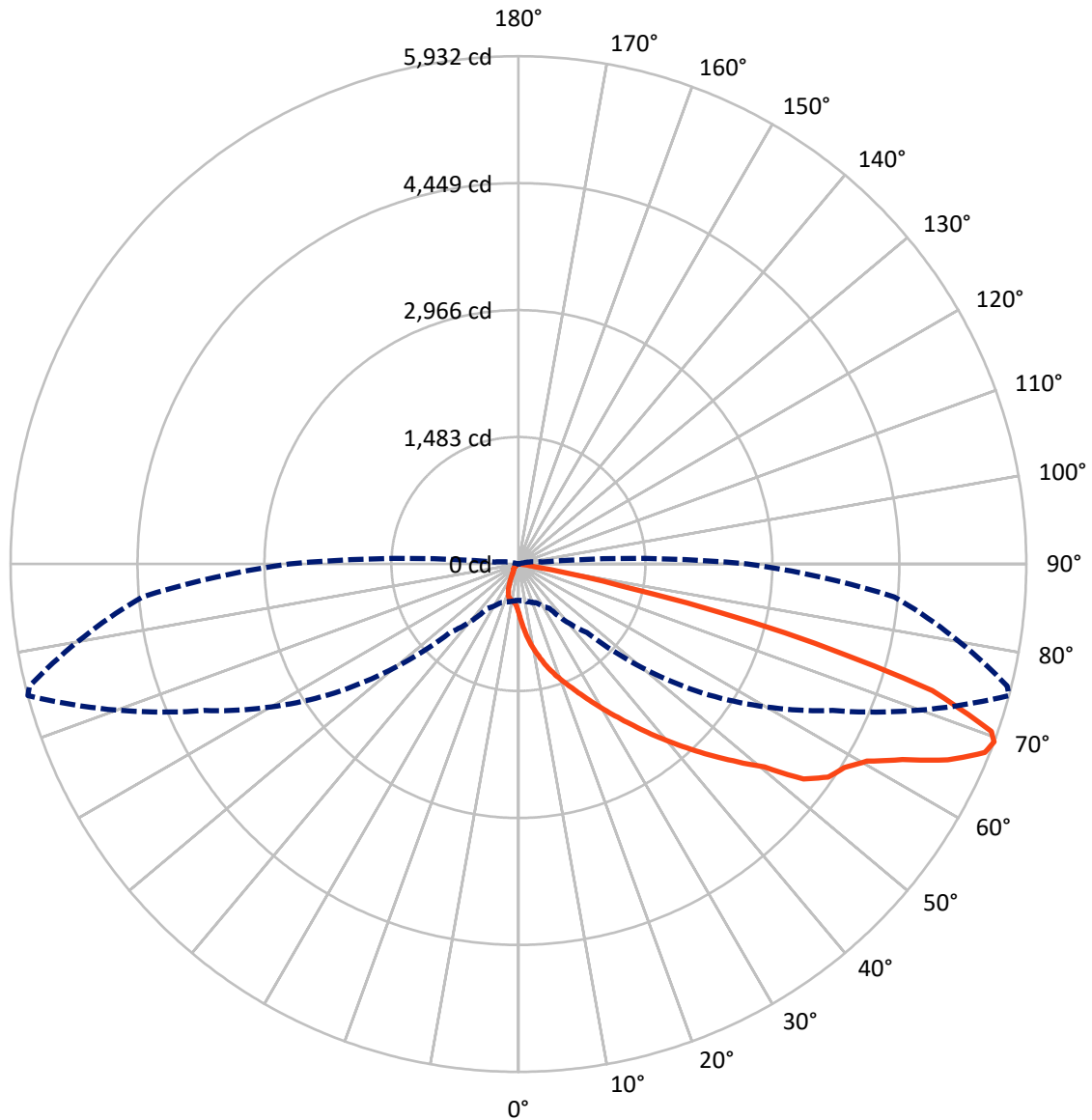


Based on 10 foot mounting height. Maximum calculated value = 15.7 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical



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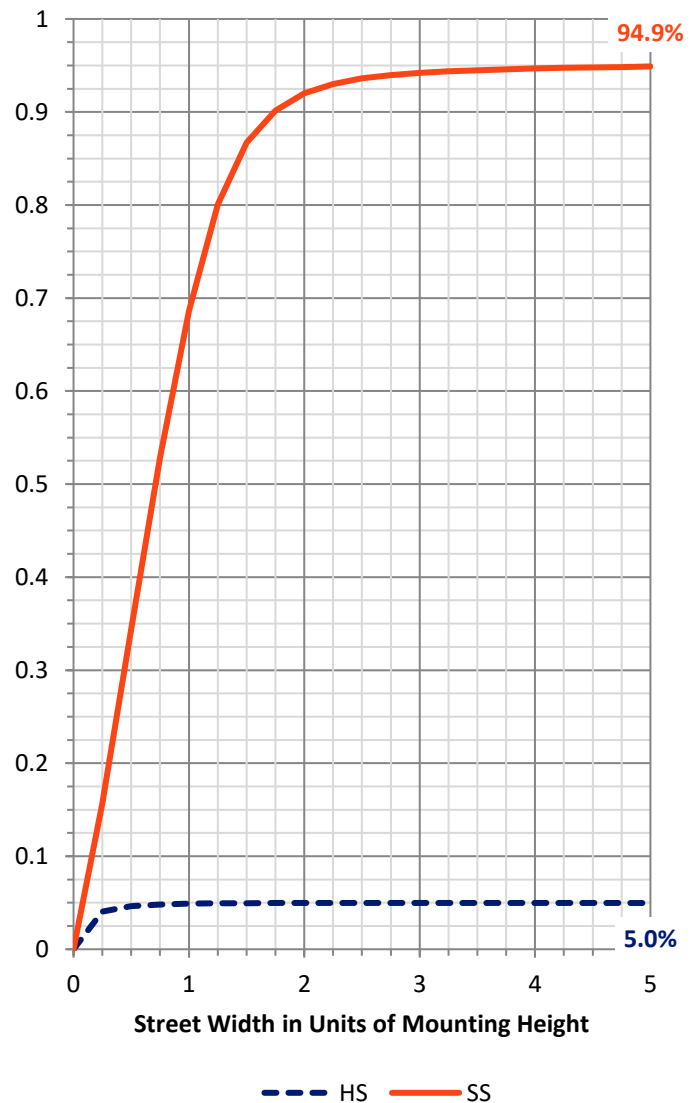
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	307.6	0.0	307.6
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	5859.0	0.0	5859.0
	% Fixture	95.0	0.0	95.0
Total	Lumens	6166.6	0.0	6166.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.9	1.1
10°-20°	239.2	3.9
20°-30°	456.6	7.4
30°-40°	819.1	13.3
40°-50°	1255.0	20.4
50°-60°	1458.6	23.7
60°-70°	1291.6	20.9
70°-80°	557.1	9.0
80°-90°	22.3	0.4
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°	6166.6	100.0
0°-180°	6166.6	100.0

Coefficient of Utilization



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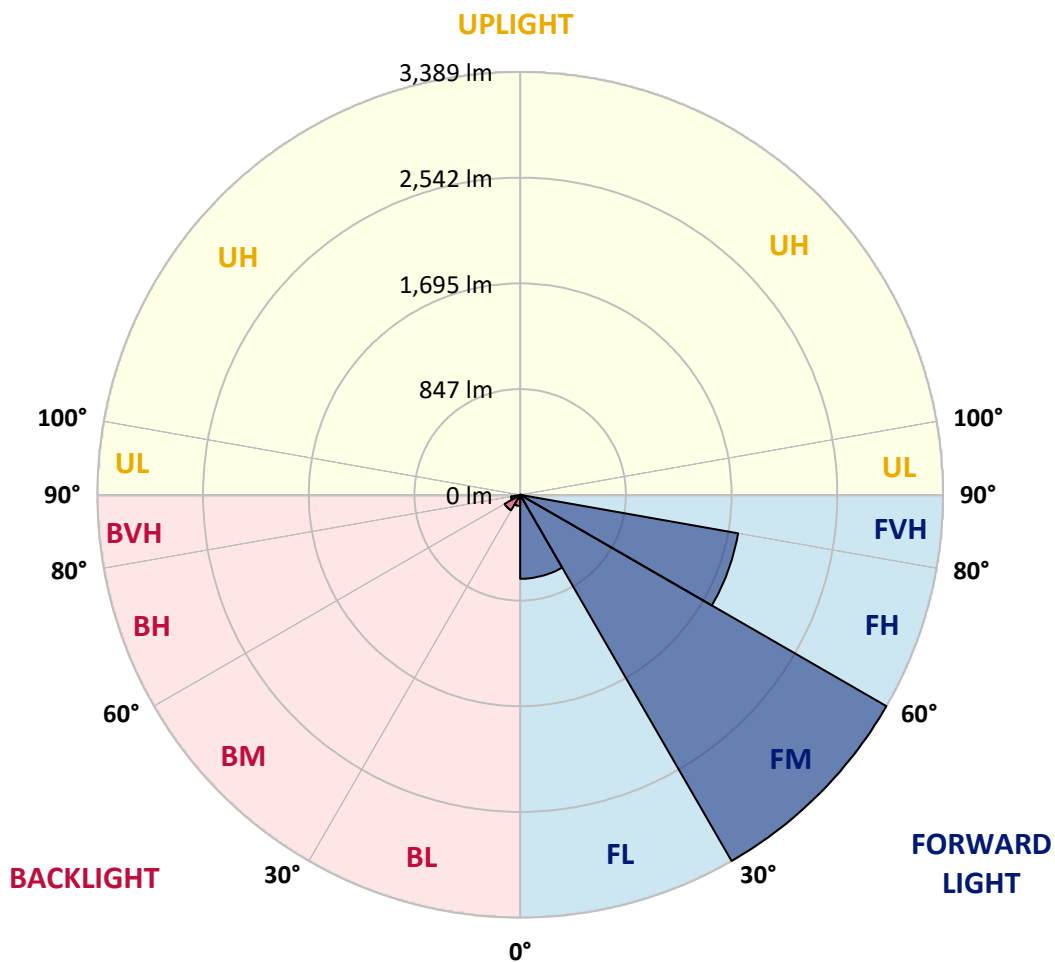
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	673.4	10.9			
FM	(30°-60°)	3389.4	55.0			
FH	(60°-80°)	1774.2	28.8			G1/1800
FVH	(80°-90°)	22.0	0.4			G1/100
BL	(0°-30°)	89.4	1.4	B0/110		
BM	(30°-60°)	143.4	2.3	B0/220		
BH	(60°-80°)	74.5	1.2	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: B0-U0-G1

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	573.7	573.7	573.7	573.7	573.7	573.7	573.7	573.7	573.7	573.7	573.7
2.5°	945.2	935.9	926.6	915.9	891.9	850.8	798.9	742.9	673.6	661.7	605.7
5°	1147.7	1143.6	1134.3	1119.6	1093.0	1047.8	989.2	906.6	790.8	770.8	652.3
7.5°	1290.1	1287.5	1279.5	1262.1	1238.1	1192.9	1131.7	1042.5	907.9	885.3	710.9
10°	1417.9	1416.5	1409.9	1393.9	1369.9	1320.7	1255.4	1162.2	1019.8	994.6	778.8
12.5°	1533.6	1535.1	1532.4	1524.3	1507.0	1460.5	1385.9	1284.8	1127.6	1099.6	860.0
15°	1601.6	1605.6	1616.2	1632.2	1637.5	1600.3	1523.0	1411.1	1238.1	1214.1	953.2
17.5°	1579.0	1583.0	1616.2	1670.8	1722.7	1728.1	1658.8	1531.0	1347.3	1323.4	1045.1
20°	1524.3	1529.8	1564.3	1638.9	1740.0	1810.7	1782.6	1661.5	1451.1	1421.8	1132.9
22.5°	1585.6	1585.6	1596.3	1641.6	1733.4	1844.0	1881.2	1791.9	1557.7	1521.6	1220.8
25°	1796.0	1791.9	1769.3	1750.6	1780.0	1878.5	1955.7	1925.1	1682.9	1641.6	1314.0
27.5°	2062.1	2080.8	2038.3	1970.3	1903.8	1946.4	2022.4	2056.8	1821.3	1778.6	1409.9
30°	2360.4	2368.4	2317.8	2227.3	2110.2	2068.8	2100.9	2170.0	1971.7	1925.1	1509.7
32.5°	2629.3	2622.7	2580.1	2485.6	2340.4	2251.3	2202.0	2260.7	2135.5	2082.2	1612.3
35°	2867.7	2873.0	2821.0	2712.0	2569.5	2474.9	2357.8	2363.1	2319.2	2257.9	1730.8
37.5°	3082.1	3072.7	3023.4	2914.3	2785.1	2682.7	2558.8	2469.6	2520.3	2456.3	1863.9
40°	3256.4	3247.2	3195.2	3088.7	2967.6	2883.6	2786.5	2612.1	2731.8	2658.7	2006.4
42.5°	3395.0	3384.3	3340.3	3237.9	3120.6	3046.2	2999.5	2787.8	2958.2	2884.9	2166.1
45°	3462.7	3453.4	3426.9	3349.6	3247.2	3181.8	3204.6	2990.2	3200.5	3139.2	2341.8
47.5°	3382.8	3379.0	3409.5	3396.2	3337.7	3303.1	3381.6	3211.3	3454.8	3395.0	2544.2
50°	3140.7	3147.3	3236.5	3346.9	3374.9	3416.3	3526.7	3444.1	3727.7	3663.8	2777.2
52.5°	2542.8	2588.0	2857.0	3123.2	3329.7	3485.5	3697.2	3777.1	4172.4	4109.8	3140.7
55°	1898.5	1917.2	2210.0	2665.4	3147.3	3480.2	3823.5	3972.8	4392.1	4328.2	3236.5
57.5°	1505.6	1512.3	1657.6	2122.2	2771.8	3360.3	3890.2	4043.2	4487.9	4434.7	3379.0
60°	1182.2	1190.3	1295.4	1615.0	2243.2	3036.8	3794.4	4104.4	4675.7	4633.1	3627.9
62.5°	920.0	927.9	991.9	1179.6	1682.9	2538.9	3601.2	4203.0	5032.5	5012.5	4035.2
65°	712.3	715.0	758.9	846.7	1188.8	1999.6	3365.6	4294.8	5514.3	5497.1	4365.5
67.5°	525.9	529.9	560.5	615.1	802.7	1436.5	2979.5	4224.3	5877.8	5827.2	4485.2
69°	424.7	428.8	455.4	499.3	633.8	1131.7	2626.7	4049.9	5932.4	5884.4	4409.4
70°	363.5	366.1	392.7	430.0	540.5	961.2	2347.1	3899.5	5860.5	5813.9	4236.2
72.5°	233.0	246.2	272.9	296.9	358.2	636.4	1584.3	3233.8	5056.4	4976.5	3317.7
75°	129.1	133.0	181.1	210.4	238.3	414.1	881.3	2017.0	3216.6	3160.5	1774.7
77.5°	106.4	109.1	127.7	159.8	159.8	231.7	332.8	794.8	1223.5	1103.7	480.7
80°	74.6	77.3	97.1	105.2	114.5	130.4	107.8	174.5	189.1	167.8	71.9
82.5°	51.9	54.5	66.6	86.5	91.8	61.3	40.0	51.9	54.5	54.5	27.9
85°	9.3	13.4	49.2	71.9	54.5	18.7	22.6	18.7	17.2	18.7	6.6
87.5°	0.0	0.0	30.6	34.7	29.3	7.9	9.3	6.6	4.0	5.3	2.6
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°	573.7	573.7	573.7	573.7	573.7	573.7	573.7	573.7	573.7	573.7	573.7
2.5°	577.8	549.9	502.0	467.3	438.1	415.3	406.0	391.4	380.7	386.1	379.4
5°	593.8	544.6	467.3	418.0	383.4	354.1	330.1	311.5	296.9	294.3	291.6
7.5°	619.1	548.5	447.4	386.1	334.2	289.0	251.6	223.7	202.4	202.4	194.4
10°	653.6	559.1	435.4	354.1	276.9	215.7	178.5	151.8	141.2	139.7	137.1
12.5°	701.7	579.1	426.1	312.9	215.7	157.2	134.4	125.1	121.1	119.8	118.4
15°	766.9	608.4	415.3	262.2	163.8	129.1	119.8	111.7	107.8	106.4	105.2
17.5°	829.5	635.0	392.7	210.4	133.0	117.1	106.4	99.8	94.5	93.2	93.2
20°	888.1	657.6	354.1	163.8	119.8	105.2	94.5	86.5	81.1	79.9	79.9
22.5°	949.2	676.3	306.2	133.0	109.1	93.2	82.6	74.6	69.2	67.9	66.6
25°	1014.5	689.5	251.6	118.4	98.5	82.6	70.5	63.9	59.8	58.6	57.2
27.5°	1085.1	695.0	199.8	107.8	86.5	71.9	61.3	54.5	51.9	50.6	50.6
30°	1148.9	689.5	154.4	95.8	75.8	62.6	53.3	47.9	45.3	43.9	43.9
32.5°	1215.4	676.3	123.8	85.2	66.6	53.3	45.3	41.3	40.0	38.5	38.5
35°	1286.1	658.9	106.4	75.8	57.2	46.6	40.0	37.3	35.9	34.7	34.7
37.5°	1368.6	637.6	97.1	67.9	50.6	41.3	34.7	33.2	32.0	32.0	32.0
40°	1461.8	611.0	90.5	61.3	45.3	35.9	30.6	29.3	27.9	27.9	27.9
42.5°	1560.4	580.5	83.9	54.5	40.0	30.6	26.6	26.6	25.3	25.3	24.0
45°	1670.8	549.9	77.3	47.9	34.7	26.6	22.6	21.3	21.3	19.9	19.9
47.5°	1801.3	521.8	70.5	42.6	30.6	22.6	19.9	18.7	17.2	16.0	16.0
50°	1985.1	519.2	62.6	37.3	27.9	18.7	16.0	14.6	13.4	11.9	11.9
52.5°	2167.4	495.2	53.3	30.6	22.6	16.0	11.9	10.7	9.3	9.3	7.9
55°	2208.8	455.4	46.6	26.6	17.2	11.9	9.3	6.6	6.6	5.3	5.3
57.5°	2299.2	436.7	40.0	21.3	13.4	9.3	5.3	4.0	4.0	4.0	4.0
60°	2477.6	431.4	34.7	18.7	9.3	6.6	4.0	2.6	2.6	1.3	1.3
62.5°	2723.9	426.1	29.3	16.0	6.6	4.0	2.6	1.3	0.0	0.0	0.0
65°	2859.8	390.0	24.0	11.9	5.3	4.0	1.3	0.0	0.0	0.0	0.0
67.5°	2823.7	322.2	21.3	7.9	4.0	2.6	1.3	0.0	0.0	0.0	0.0
69°	2673.4	271.6	17.2	6.6	4.0	2.6	1.3	0.0	0.0	0.0	0.0
70°	2492.3	234.3	16.0	5.3	2.6	1.3	1.3	0.0	0.0	0.0	0.0
72.5°	1769.3	122.4	10.7	4.0	2.6	1.3	0.0	0.0	0.0	0.0	0.0
75°	826.8	54.5	6.6	2.6	1.3	1.3	0.0	0.0	0.0	0.0	0.0
77.5°	182.4	25.3	4.0	2.6	1.3	0.0	0.0	0.0	0.0	0.0	0.0
80°	34.7	9.3	2.6	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	11.9	4.0	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.3	0.0	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)