

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: P234765

Luminaire Tested: **ARCH-AF24-100-D-U-T4W-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234765
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-AF24-100-D-U-T4W-8027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 1200mA LIGHT ENGINE 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: 5427 lumens
Efficiency: N/A
Efficacy: 56.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 96
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

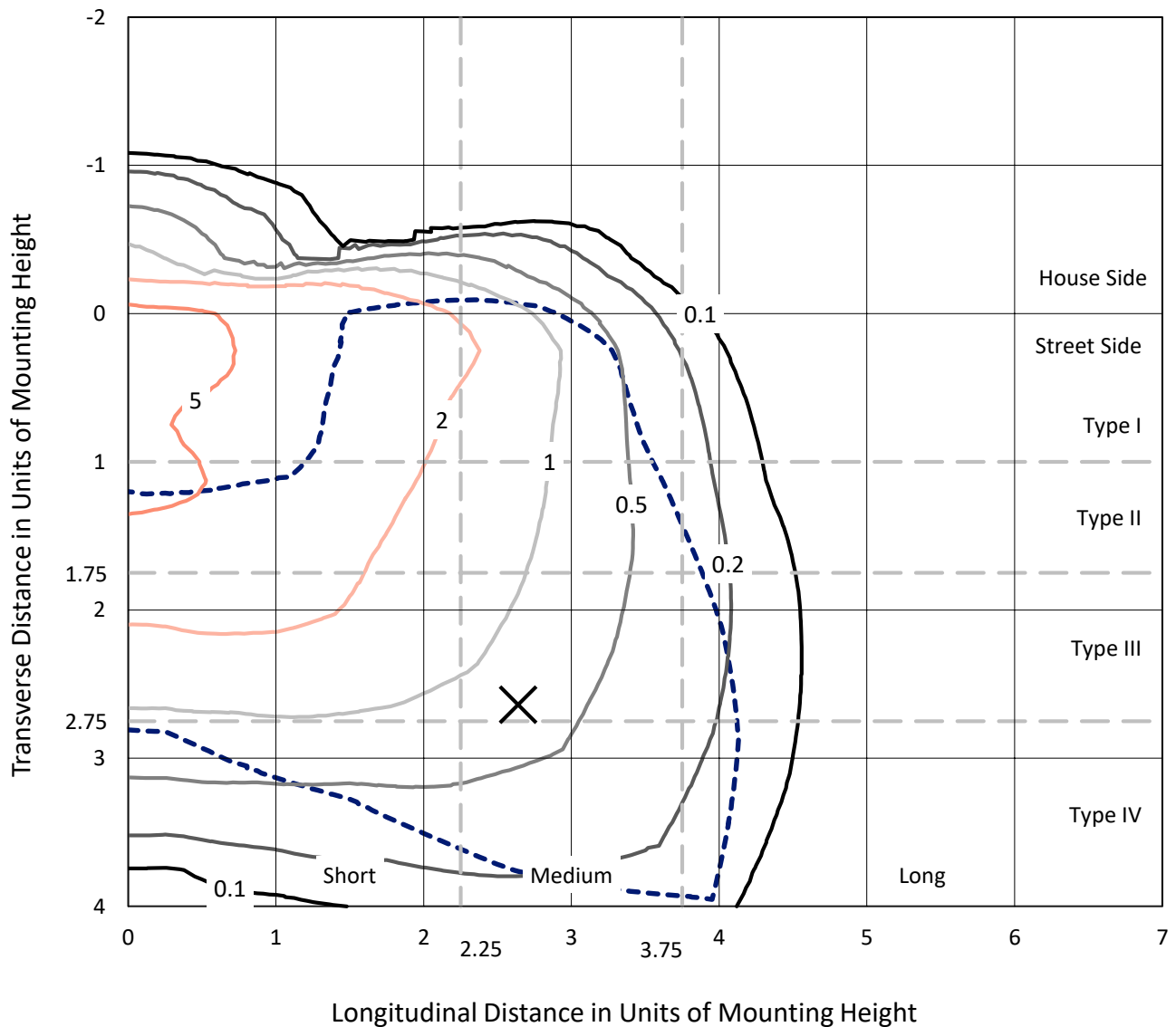


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

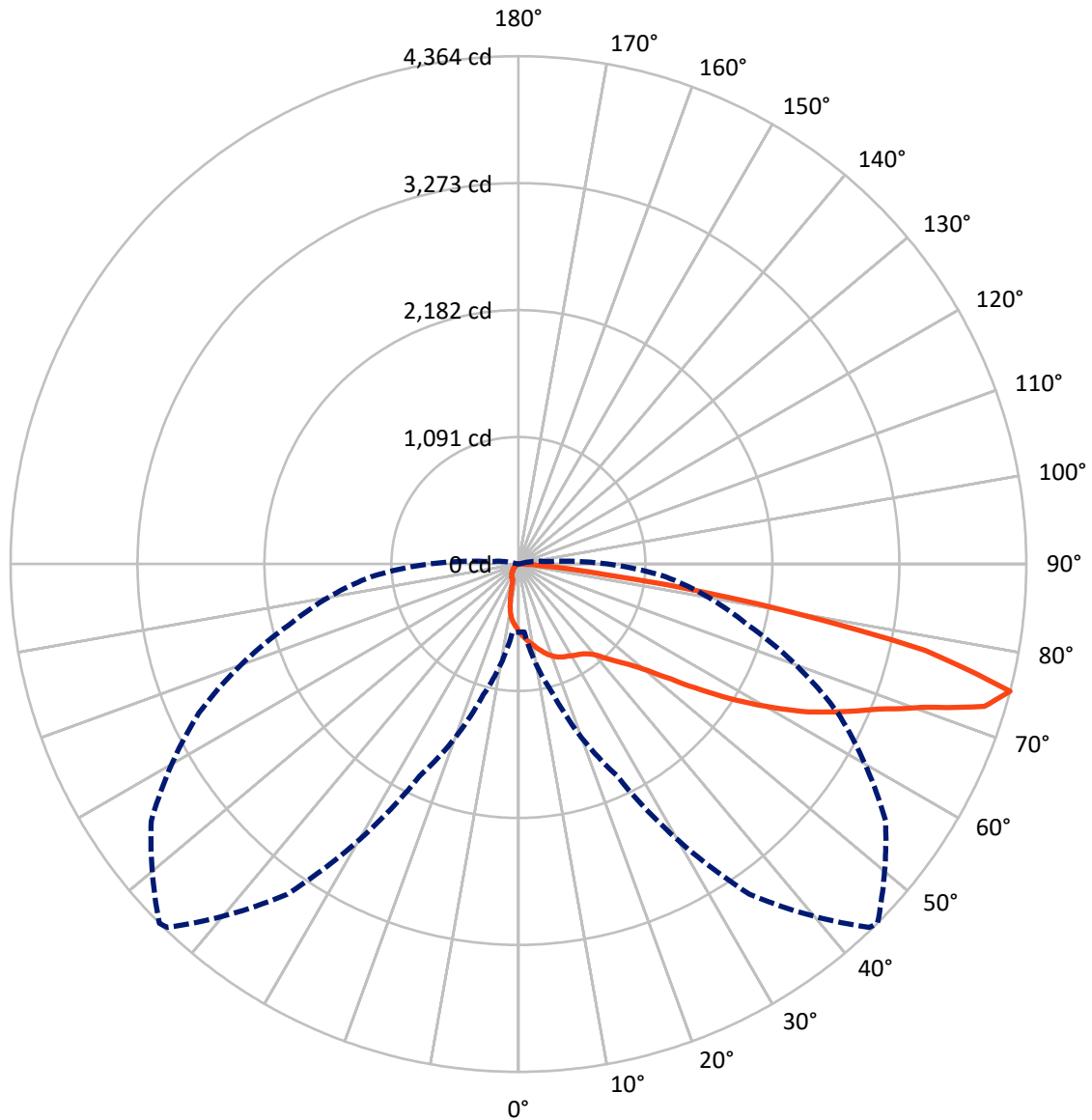


Based on 10 foot mounting height. Maximum calculated value = 7.7 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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



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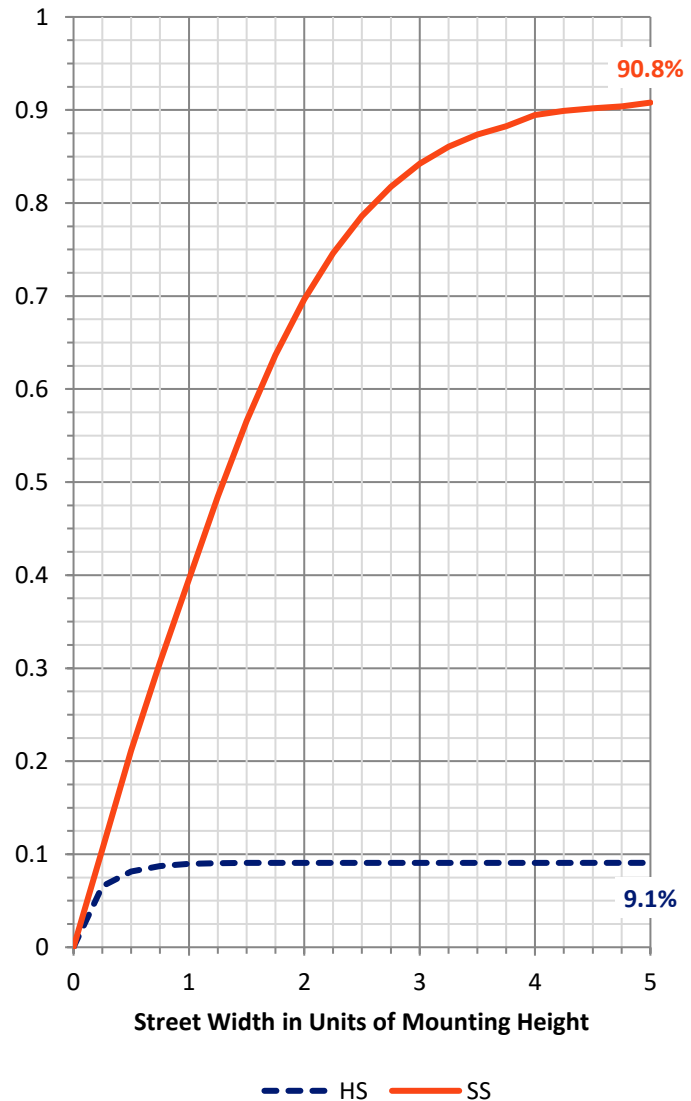
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	496.4	0.0	496.4
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	4930.6	0.0	4930.6
	% Fixture	90.9	0.0	90.9
Total	Lumens	5427.0	0.0	5427.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.8	1.0
10°-20°	155.2	2.9
20°-30°	257.0	4.7
30°-40°	372.0	6.9
40°-50°	609.1	11.2
50°-60°	1085.3	20.0
60°-70°	1595.5	29.4
70°-80°	1203.7	22.2
80°-90°	94.4	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°	5427.0	100.0
0°-180°	5427.0	100.0



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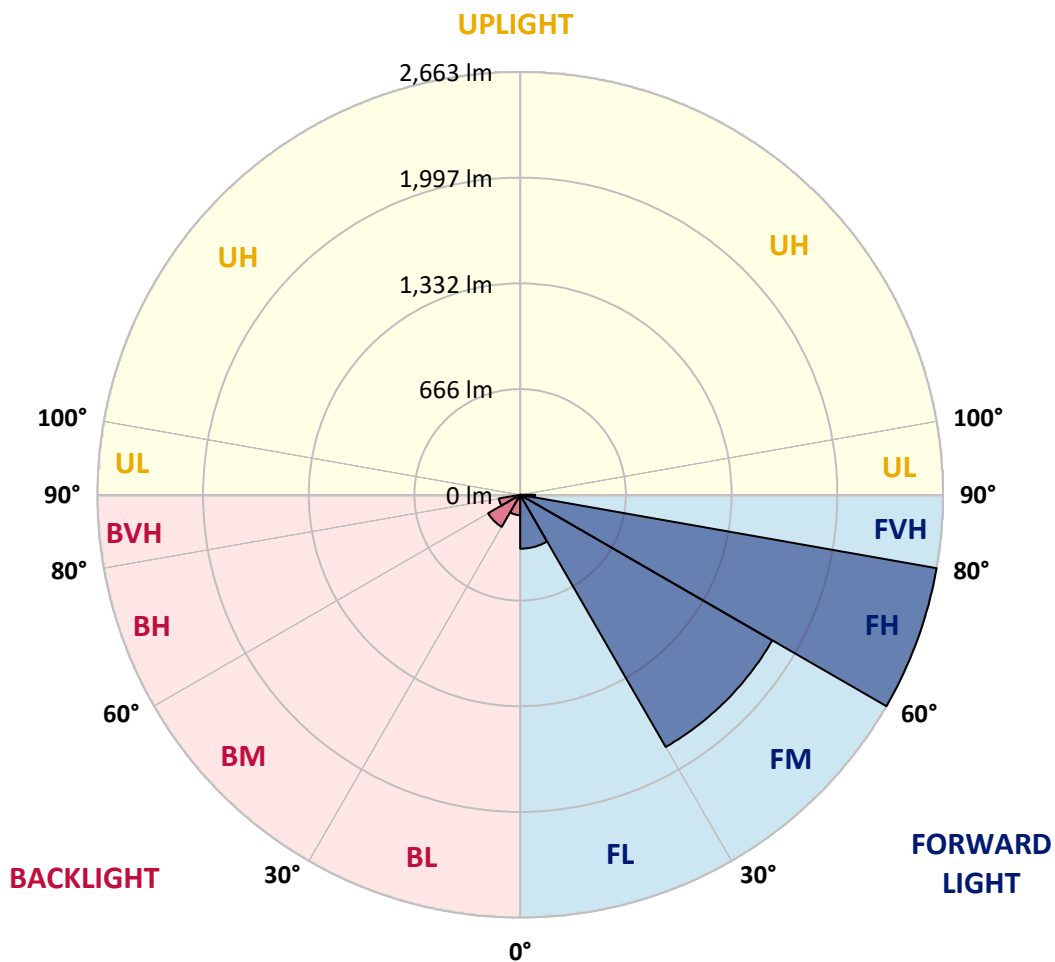
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	339.4	6.3			
FM	(30°-60°)	1833.8	33.8			
FH	(60°-80°)	2663.2	49.1			G2/5000
FVH	(80°-90°)	94.2	1.7			G1/100
BL	(0°-30°)	127.6	2.4	B1/500		
BM	(30°-60°)	232.6	4.3	B1/1000		
BH	(60°-80°)	136.0	2.5	B1/500		G1/500
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-G2

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	580.4	580.4	580.4	580.4	580.4	580.4	580.4	580.4	580.4	580.4	580.4
2.5°	630.5	630.5	629.2	628.0	621.5	615.1	613.8	610.0	598.4	590.7	583.0
5°	683.2	684.5	681.9	675.5	661.4	647.2	645.9	635.7	613.8	598.4	581.7
7.5°	733.3	735.8	729.4	717.9	701.2	680.6	679.3	660.1	631.8	610.0	585.6
10°	775.6	775.6	766.7	752.5	734.5	712.7	710.1	688.3	656.2	629.2	597.1
12.5°	821.9	820.6	807.7	788.5	767.9	747.4	746.1	719.1	688.3	653.6	613.8
15°	864.2	861.7	845.0	827.0	805.2	783.3	782.1	755.1	723.0	681.9	638.2
17.5°	887.4	886.1	870.7	852.7	834.7	818.0	816.7	788.5	753.8	711.4	662.6
20°	891.2	892.5	879.7	864.2	854.0	845.0	845.0	819.3	782.1	737.1	688.3
22.5°	892.5	896.4	887.4	866.8	864.2	865.5	868.1	847.6	809.0	766.7	715.3
25°	901.5	906.6	900.2	875.8	873.2	882.2	884.8	875.8	841.1	798.8	746.1
27.5°	919.5	924.6	919.5	888.6	884.8	893.8	896.4	901.5	875.8	829.6	778.2
30°	955.4	956.7	945.2	906.6	898.9	910.5	914.3	928.5	907.9	859.1	809.0
32.5°	1018.4	1005.5	970.8	919.5	913.0	925.9	929.7	945.2	937.4	887.4	841.1
35°	1146.8	1080.0	1000.4	937.4	931.0	943.9	949.0	970.8	974.7	927.2	880.9
37.5°	1145.5	1085.1	1069.7	972.1	963.1	972.1	978.5	1005.5	1020.9	979.8	938.7
40°	1226.4	1200.7	1200.7	1037.6	1008.1	1020.9	1027.3	1054.3	1081.3	1049.2	1006.8
42.5°	1480.7	1464.0	1446.0	1163.5	1071.0	1107.0	1110.8	1127.5	1159.6	1149.3	1099.3
45°	1764.5	1749.0	1679.7	1376.6	1178.9	1185.3	1194.3	1221.3	1267.5	1286.7	1227.7
47.5°	1986.6	1971.2	1912.1	1633.5	1347.1	1290.6	1290.6	1343.2	1415.2	1464.0	1407.5
50°	2165.1	2147.1	2111.2	1907.0	1623.2	1442.1	1434.4	1496.1	1602.7	1678.4	1639.9
52.5°	2338.5	2285.8	2264.0	2189.5	1935.3	1661.7	1641.2	1684.8	1832.5	1926.3	1894.2
55°	2454.1	2446.4	2423.2	2448.9	2262.7	1928.8	1910.9	1919.8	2104.8	2167.7	2127.9
57.5°	2561.9	2560.6	2612.0	2731.4	2619.7	2234.5	2206.2	2192.1	2368.0	2352.6	2387.3
60°	2695.5	2672.4	2791.8	2962.6	2947.2	2532.4	2500.3	2472.0	2569.6	2526.0	2698.1
62.5°	2701.9	2695.5	2938.2	3183.5	3272.1	2835.5	2798.2	2696.8	2745.6	2695.5	2994.7
65°	2456.6	2488.7	2999.8	3300.3	3544.3	3101.3	3056.3	2898.4	2902.2	2868.8	3344.0
67.5°	2401.4	2418.1	2830.3	3426.2	3740.8	3369.7	3327.3	3130.8	3084.6	3087.2	3550.7
70°	2264.0	2289.7	2619.7	3417.2	3896.2	3728.0	3685.6	3472.4	3360.7	3236.1	3391.5
72.5°	1729.8	1773.4	2207.5	2996.0	3853.8	4196.7	4185.1	3905.2	3471.1	2971.6	2565.8
75°	585.6	584.3	1159.6	2012.3	3462.1	4340.5	4363.6	3851.2	3028.1	2049.5	1273.9
77.5°	125.8	127.1	238.9	815.5	2300.0	3485.3	3573.9	2904.8	1953.2	913.0	291.5
80°	61.6	62.9	98.9	215.7	919.5	1954.5	2093.2	1493.5	721.7	182.4	48.8
82.5°	30.8	32.1	51.4	114.3	340.3	694.7	742.3	549.6	206.8	102.7	24.4
85°	11.6	11.6	25.7	68.1	155.4	163.1	200.3	159.2	124.6	83.5	6.4
87.5°	2.6	2.6	14.1	33.4	69.3	51.4	51.4	48.8	75.8	56.5	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°	580.4	580.4	580.4	580.4	580.4	580.4	580.4	580.4	580.4	580.4	580.4
2.5°	579.2	574.0	565.0	556.0	549.6	541.9	538.1	534.2	532.9	531.6	534.2
5°	572.7	565.0	548.3	534.2	521.4	511.1	503.4	495.7	491.8	489.3	490.6
7.5°	572.7	561.2	536.8	515.0	494.4	472.6	450.7	434.1	421.2	413.5	414.8
10°	579.2	563.8	531.6	502.1	463.6	417.4	369.8	333.9	309.5	295.4	295.4
12.5°	593.3	572.7	532.9	486.7	421.2	340.3	268.4	224.7	206.8	196.5	197.8
15°	612.6	588.2	539.4	466.2	362.1	253.0	187.5	159.2	159.2	161.8	163.1
17.5°	634.4	607.4	544.5	435.3	286.4	181.1	147.7	145.1	149.0	155.4	155.4
20°	656.2	626.7	547.1	386.5	214.5	143.8	140.0	140.0	142.5	149.0	150.2
22.5°	683.2	651.1	544.5	326.2	160.5	136.1	134.8	134.8	134.8	142.5	142.5
25°	711.4	679.3	534.2	262.0	136.1	131.0	129.7	128.4	128.4	134.8	136.1
27.5°	743.5	708.9	509.8	200.3	128.4	125.8	124.6	122.0	122.0	127.1	127.1
30°	775.6	742.3	472.6	151.5	122.0	120.7	118.1	115.6	113.0	118.1	118.1
32.5°	810.3	776.9	423.8	120.7	113.0	113.0	111.7	107.9	105.3	107.9	109.2
35°	856.5	816.7	368.6	105.3	101.4	101.4	101.4	100.2	95.0	97.6	97.6
37.5°	918.2	872.0	304.3	97.6	92.5	89.9	89.9	89.9	86.0	87.3	87.3
40°	996.5	936.2	242.7	91.2	86.0	79.6	77.1	78.3	75.8	75.8	74.5
42.5°	1103.1	1005.5	182.4	86.0	80.9	71.9	66.8	65.5	62.9	61.6	61.6
45°	1255.9	1090.3	131.0	80.9	77.1	62.9	57.8	53.9	47.5	43.7	43.7
47.5°	1453.7	1186.6	97.6	75.8	73.2	55.2	48.8	41.1	32.1	29.5	29.5
50°	1695.1	1294.4	82.2	68.1	66.8	48.8	38.5	27.0	18.0	15.4	16.7
52.5°	1930.1	1395.9	73.2	60.4	59.1	42.4	28.3	14.1	7.7	7.7	7.7
55°	2127.9	1467.8	66.8	53.9	51.4	33.4	15.4	6.4	3.9	3.9	3.9
57.5°	2306.4	1508.9	60.4	47.5	41.1	23.1	6.4	2.6	2.6	1.3	1.3
60°	2469.5	1533.3	52.7	41.1	32.1	12.8	2.6	1.3	1.3	0.0	0.0
62.5°	2630.0	1551.3	44.9	33.4	24.4	5.1	1.3	1.3	0.0	0.0	0.0
65°	2752.0	1544.9	36.0	27.0	15.4	2.6	1.3	0.0	0.0	0.0	0.0
67.5°	2748.1	1457.5	27.0	20.5	7.7	1.3	0.0	0.0	0.0	0.0	0.0
70°	2457.9	1227.7	18.0	12.8	2.6	1.3	0.0	0.0	0.0	0.0	0.0
72.5°	1743.9	787.2	11.6	7.7	1.3	0.0	0.0	0.0	0.0	0.0	0.0
75°	767.9	238.9	6.4	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	150.2	55.2	3.9	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	36.0	6.4	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	15.4	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.9	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.6	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)