

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: P265986

Luminaire Tested: **ARCH-AF24-100-D-U-T2R-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265986
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)
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-T2R-7027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 1200mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8663.5 lumens
Efficiency: N/A
Efficacy: 90.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Medium - Semi-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

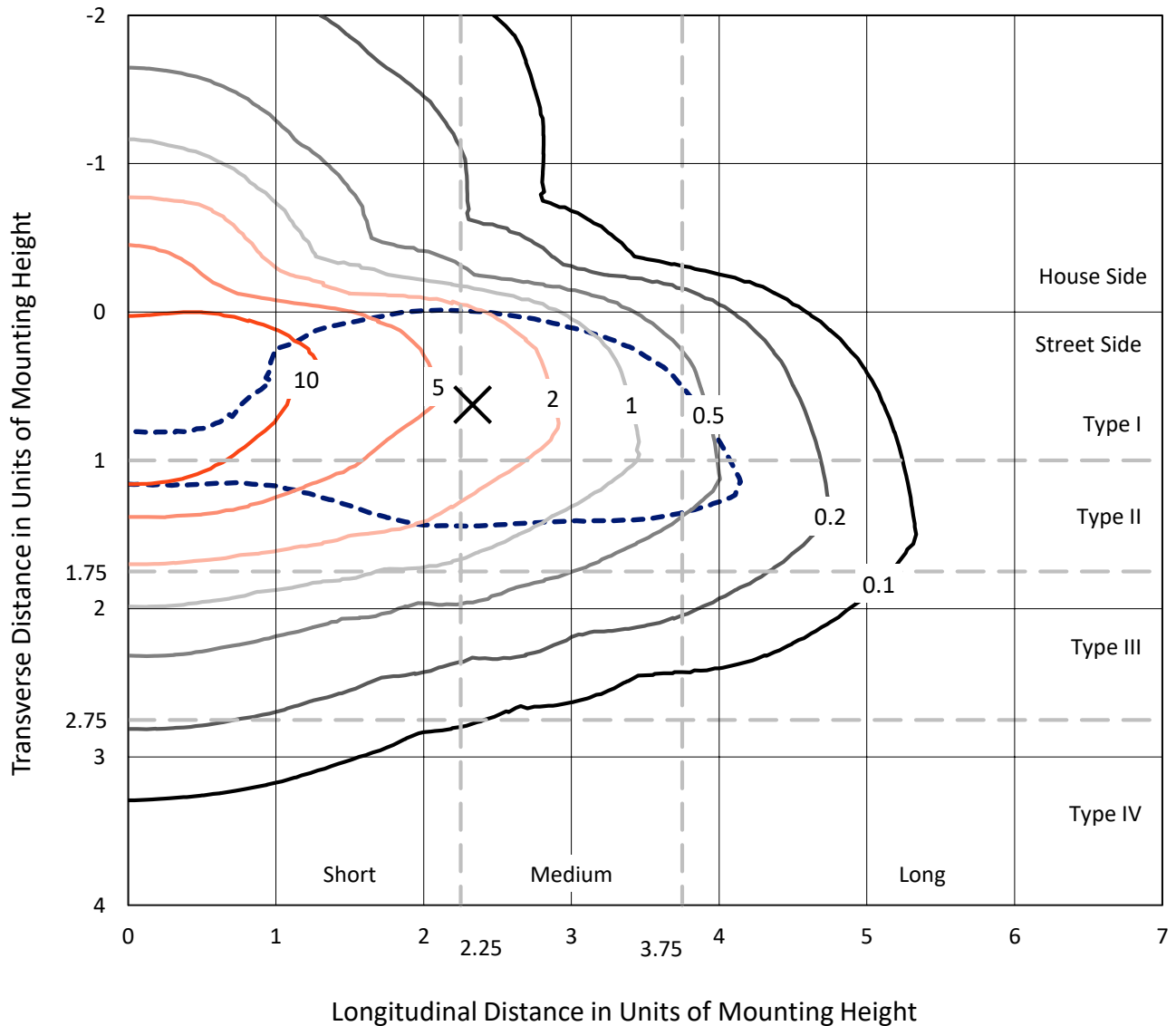


REPORT NUMBER: P265986

CATALOG NUMBER: ARCH-AF24-100-D-U-T2R-7027

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

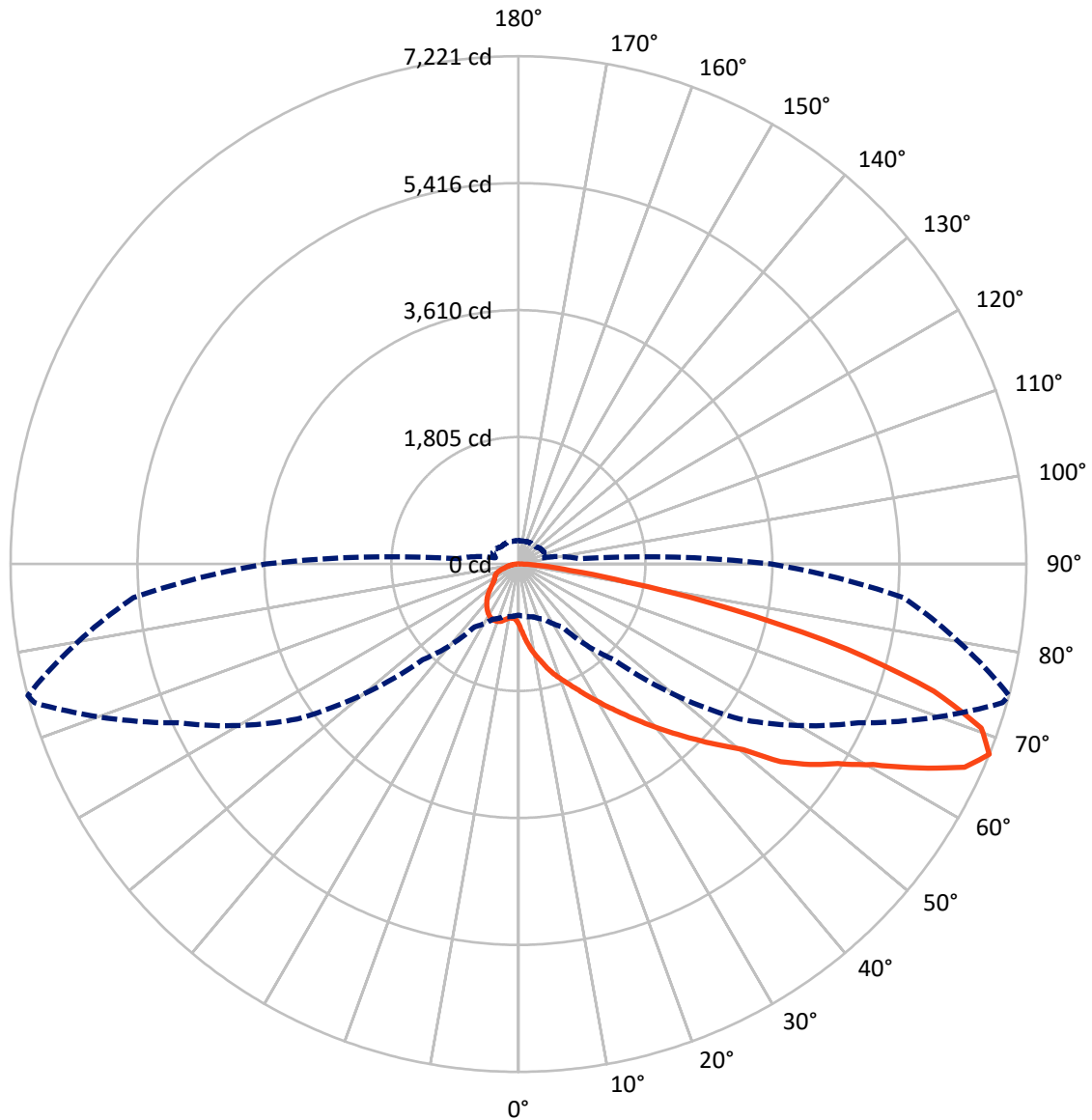


Based on 10 foot mounting height. Maximum calculated value = 18 fc
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P265986

CATALOG NUMBER: ARCH-AF24-100-D-U-T2R-7027

Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P265986

CATALOG NUMBER: ARCH-AF24-100-D-U-T2R-7027

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1479.4	0.0	1479.4
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	7184.1	0.0	7184.1
	% Fixture	82.9	0.0	82.9
Total	Lumens	8663.5	0.0	8663.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.9	1.2
10°-20°	364.5	4.2
20°-30°	664.8	7.7
30°-40°	1091.1	12.6
40°-50°	1578.0	18.2
50°-60°	1859.6	21.5
60°-70°	1807.1	20.9
70°-80°	1004.5	11.6
80°-90°	193.1	2.2
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°	8663.5	100.0
0°-180°	8663.5	100.0



REPORT NUMBER: P265986

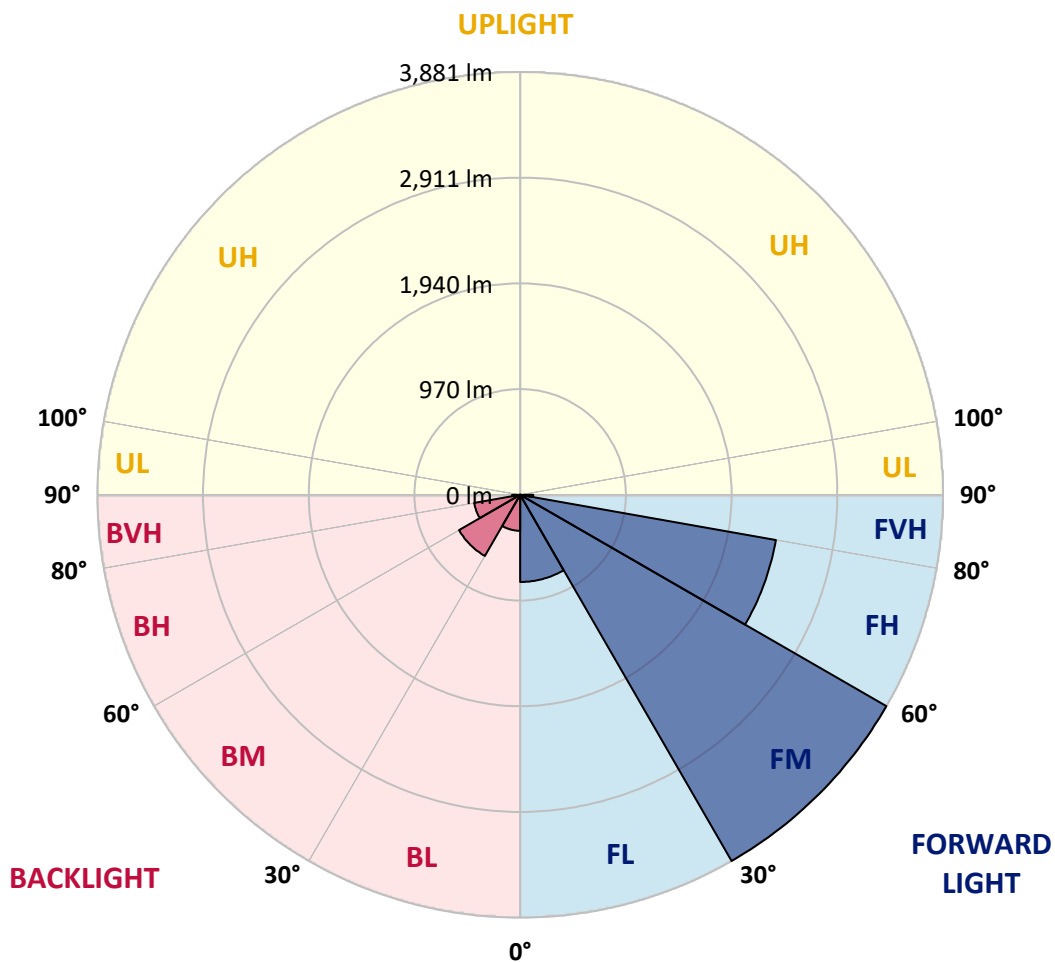
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	799.9	9.2			
FM (30°-60°)	3880.8	44.8			
FH (60°-80°)	2383.2	27.5			G2/5000
FVH (80°-90°)	120.2	1.4			G2/225
BL (0°-30°)	330.2	3.8	B1/500		
BM (30°-60°)	647.9	7.5	B1/1000		
BH (60°-80°)	428.4	4.9	B1/500		G1/500
BVH (80°-90°)	72.9	0.8			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Medium





REPORT NUMBER: P265986

CATALOG NUMBER: ARCH-AF24-100-D-U-T2R-7027

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	858.5	858.5	858.5	858.5	858.5	858.5	858.5	858.5	858.5	858.5	858.5
2.5°	1217.1	1220.6	1213.4	1197.1	1173.6	1130.2	1092.1	1025.1	965.3	958.1	894.7
5°	1430.8	1434.5	1425.3	1405.4	1380.1	1332.9	1280.4	1193.5	1097.5	1079.5	945.3
7.5°	1577.6	1579.3	1568.4	1548.5	1528.6	1481.6	1428.9	1331.2	1213.4	1199.0	1010.7
10°	1702.5	1706.2	1691.6	1678.9	1657.2	1610.1	1555.8	1452.5	1331.2	1311.3	1077.5
12.5°	1818.3	1822.0	1812.9	1802.1	1794.9	1751.3	1691.6	1568.4	1438.0	1416.3	1157.2
15°	1896.2	1899.8	1901.7	1916.2	1925.2	1894.4	1834.7	1700.6	1554.0	1534.0	1251.5
17.5°	1874.6	1883.6	1910.8	1963.2	2019.4	2021.1	1972.3	1831.0	1668.1	1646.4	1347.5
20°	1811.2	1818.3	1851.0	1930.6	2041.0	2104.5	2100.9	1963.2	1775.0	1751.3	1436.2
22.5°	1863.7	1872.6	1872.6	1921.7	2030.3	2147.9	2195.1	2093.7	1881.8	1860.0	1525.0
25°	2088.2	2093.7	2055.6	2035.6	2075.5	2184.1	2272.9	2235.0	2012.2	1986.8	1620.9
27.5°	2401.6	2392.5	2345.5	2265.7	2222.2	2251.2	2341.8	2368.9	2162.5	2131.7	1720.6
30°	2713.1	2707.6	2653.4	2546.4	2448.6	2387.1	2417.9	2488.5	2325.5	2289.3	1816.6
32.5°	3004.7	2995.6	2935.8	2810.8	2700.3	2586.3	2526.6	2597.2	2499.4	2457.8	1923.5
35°	3272.6	3249.2	3189.4	3059.0	2944.9	2836.2	2689.5	2700.3	2687.6	2644.3	2041.0
37.5°	3490.1	3471.9	3406.7	3285.5	3164.0	3060.7	2906.8	2818.2	2890.6	2848.9	2177.0
40°	3682.1	3662.1	3595.0	3473.7	3361.5	3263.6	3142.4	2961.3	3118.7	3071.7	2329.0
42.5°	3826.9	3812.3	3758.1	3638.6	3529.9	3441.1	3381.4	3142.4	3356.0	3310.8	2495.8
45°	3904.8	3890.3	3861.4	3765.3	3665.8	3597.0	3602.4	3357.9	3604.1	3566.1	2693.2
47.5°	3808.9	3819.7	3845.0	3826.9	3765.3	3732.7	3799.7	3580.6	3881.2	3845.0	2906.8
50°	3551.5	3562.5	3663.8	3789.0	3810.6	3850.4	3977.2	3837.7	4174.7	4145.7	3171.2
52.5°	2919.5	2979.3	3259.9	3558.8	3763.4	3928.3	4174.7	4219.9	4669.1	4669.1	3638.6
55°	2206.0	2258.5	2579.0	3100.6	3580.6	3935.6	4319.5	4478.9	5025.8	5033.2	3883.1
57.5°	1787.5	1820.1	1977.8	2512.0	3196.6	3845.0	4491.5	4701.6	5322.8	5355.4	4198.1
60°	1450.8	1468.8	1572.0	1943.4	2666.0	3600.4	4614.8	5020.4	5746.6	5791.9	4600.2
62.5°	1166.4	1184.4	1253.2	1476.1	2091.9	3142.4	4593.0	5351.8	6311.8	6386.1	5127.3
65°	931.0	950.9	996.1	1133.8	1550.4	2573.6	4370.3	5522.2	6896.7	6969.2	5476.8
67.5°	726.3	744.3	775.1	865.7	1092.1	1925.2	3843.2	5342.8	7159.3	7220.9	5494.9
70°	548.8	557.8	583.2	641.1	780.5	1278.6	3008.2	4741.6	6924.0	6980.1	5132.7
72.5°	425.5	423.8	438.4	467.3	545.1	880.2	1994.1	3855.9	6121.6	6179.5	4379.2
75°	347.7	345.9	355.0	364.1	394.9	590.5	1177.1	2903.2	4940.8	4830.2	3285.5
77.5°	293.3	291.6	300.7	302.5	315.1	407.6	670.1	1910.8	3296.2	3106.1	1851.0
80°	248.1	246.3	257.2	260.8	269.9	298.9	385.7	1034.2	1655.3	1568.4	883.8
82.5°	186.6	193.8	213.6	222.8	233.6	221.0	239.0	456.3	768.0	733.5	383.9
85°	90.5	106.9	161.2	179.3	192.0	139.4	163.0	215.6	345.9	329.6	155.8
87.5°	30.8	27.2	95.9	114.2	125.0	63.4	90.5	119.6	143.1	130.4	48.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P265986

CATALOG NUMBER: ARCH-AF24-100-D-U-T2R-7027

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	858.5	858.5	858.5	858.5	858.5	858.5	858.5	858.5	858.5	858.5	858.5
2.5°	867.6	840.4	800.5	769.7	749.8	733.5	726.3	724.5	720.8	719.1	719.1
5°	885.5	836.7	775.1	742.5	733.5	726.3	730.0	731.7	731.7	731.7	731.7
7.5°	912.8	844.0	769.7	748.0	746.2	746.2	757.0	762.5	766.2	766.2	766.2
10°	949.0	856.7	778.8	760.7	766.2	769.7	782.5	789.6	793.3	795.1	796.8
12.5°	997.9	883.8	796.8	782.5	789.6	791.4	800.5	804.2	807.8	809.6	809.6
15°	1063.1	923.6	825.9	807.8	809.6	807.8	807.8	804.2	802.4	802.4	806.0
17.5°	1130.2	961.7	851.2	825.9	818.6	804.2	793.3	784.2	778.8	775.1	776.9
20°	1197.1	996.1	865.7	829.5	809.6	786.0	766.2	753.4	746.2	738.9	742.5
22.5°	1264.2	1028.6	871.1	818.6	789.6	755.2	733.5	713.6	697.3	686.5	688.2
25°	1338.5	1064.9	871.1	806.0	762.5	726.3	699.2	666.5	642.9	633.9	637.4
27.5°	1412.7	1095.8	862.2	782.5	731.7	695.5	655.7	617.6	603.1	597.6	599.4
30°	1487.0	1119.3	842.3	753.4	699.2	659.3	606.7	581.4	563.2	548.8	550.7
32.5°	1561.2	1135.5	815.0	717.1	664.7	614.0	570.6	541.5	508.9	490.8	492.6
35°	1646.4	1148.3	782.5	680.9	626.7	574.1	541.5	494.4	460.0	445.5	442.0
37.5°	1735.0	1157.2	748.0	641.1	588.6	545.1	512.6	454.6	422.1	402.1	400.3
40°	1831.0	1160.9	706.3	599.4	552.4	527.0	474.6	431.0	375.0	362.2	362.2
42.5°	1945.1	1159.2	664.7	557.8	512.6	485.4	447.4	427.5	378.5	365.8	358.7
45°	2075.5	1159.2	619.4	508.9	472.7	432.9	416.5	403.9	371.3	376.7	380.3
47.5°	2224.1	1155.5	565.0	469.0	440.1	405.7	396.6	369.5	356.7	360.4	364.1
50°	2428.7	1160.9	516.2	436.4	416.5	387.6	376.7	362.2	356.7	358.7	356.7
52.5°	2713.1	1142.9	469.0	416.5	398.5	360.4	360.4	358.7	360.4	358.7	358.7
55°	2868.7	1102.9	434.7	405.7	385.7	347.7	355.0	358.7	362.2	360.4	360.4
57.5°	3089.8	1075.8	407.6	398.5	378.5	344.1	351.3	358.7	360.4	358.7	358.7
60°	3350.6	1057.8	389.3	400.3	373.1	344.1	353.2	358.7	356.7	355.0	355.0
62.5°	3653.0	1050.5	376.7	405.7	367.6	345.9	353.2	358.7	351.3	349.5	349.5
65°	3767.1	985.3	360.4	409.3	371.3	345.9	351.3	353.2	344.1	342.3	340.5
67.5°	3591.5	873.0	336.9	402.1	382.1	345.9	345.9	344.1	333.2	331.5	327.8
70°	3198.4	724.5	300.7	378.5	389.3	347.7	338.8	329.6	318.8	318.8	311.5
72.5°	2618.9	570.6	253.5	336.9	383.9	353.2	324.2	311.5	298.9	298.9	291.6
75°	1887.2	425.5	202.8	280.7	360.4	351.3	306.1	289.8	275.3	273.4	264.5
77.5°	1075.8	298.9	164.7	219.1	320.5	342.3	289.8	264.5	248.1	242.7	237.2
80°	552.4	201.0	134.0	172.0	266.3	316.9	277.0	235.4	217.3	208.2	199.2
82.5°	262.7	134.0	103.2	126.8	201.0	277.0	260.8	202.8	183.0	172.0	161.2
85°	117.7	79.7	68.8	81.4	143.1	215.6	230.1	166.6	143.1	179.3	132.2
87.5°	38.1	36.2	36.2	38.1	68.8	94.2	168.4	123.2	114.2	94.2	79.7
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)