

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: P214592

Luminaire Tested: **ARCH-AF24-70-D-U-T2R**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214592
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-AF24-70-D-U-T2R
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 930mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8717.6 lumens
Efficiency: N/A
Efficacy: 117.8 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): 74
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

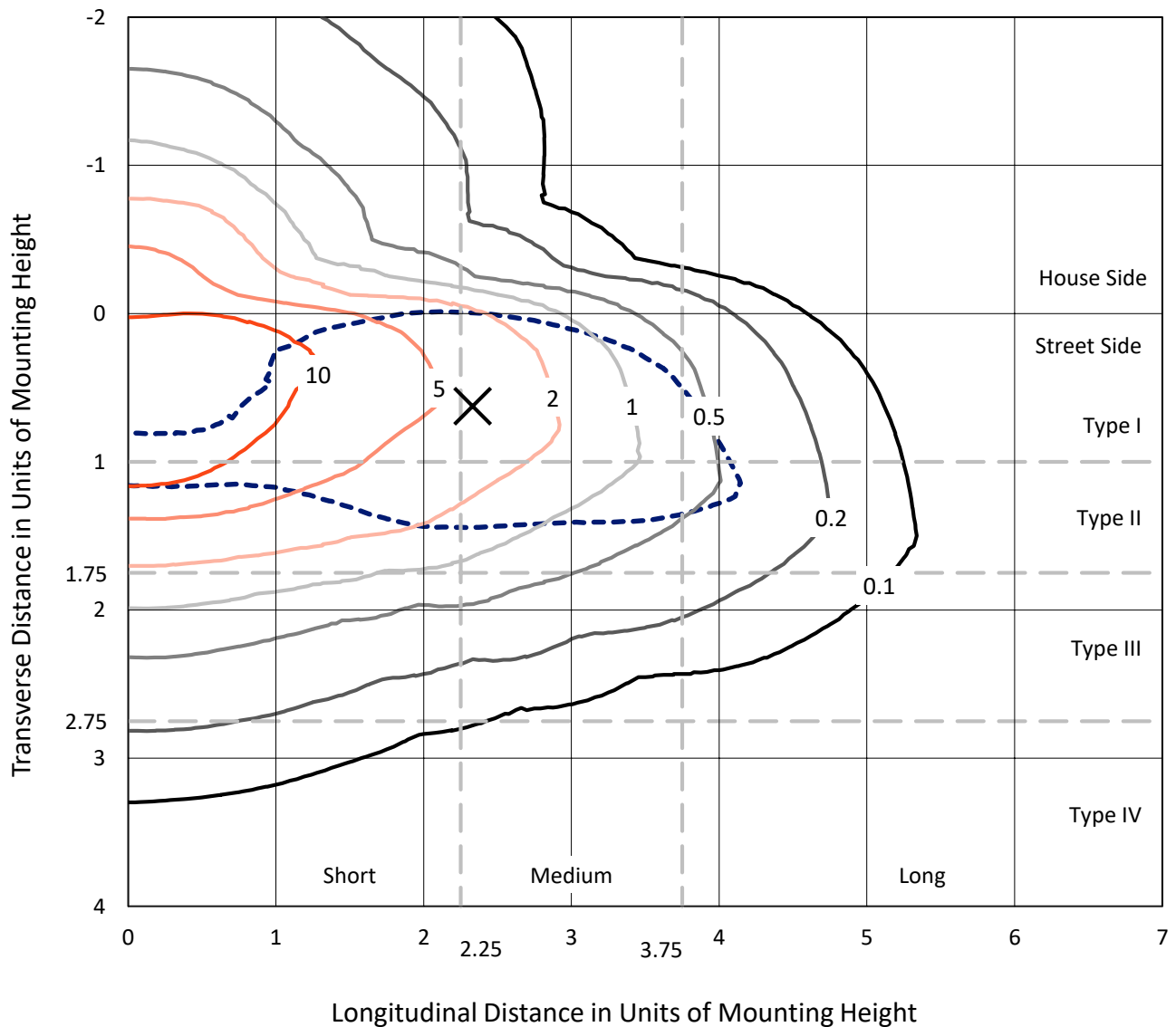


REPORT NUMBER: P214592

CATALOG NUMBER: ARCH-AF24-70-D-U-T2R

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

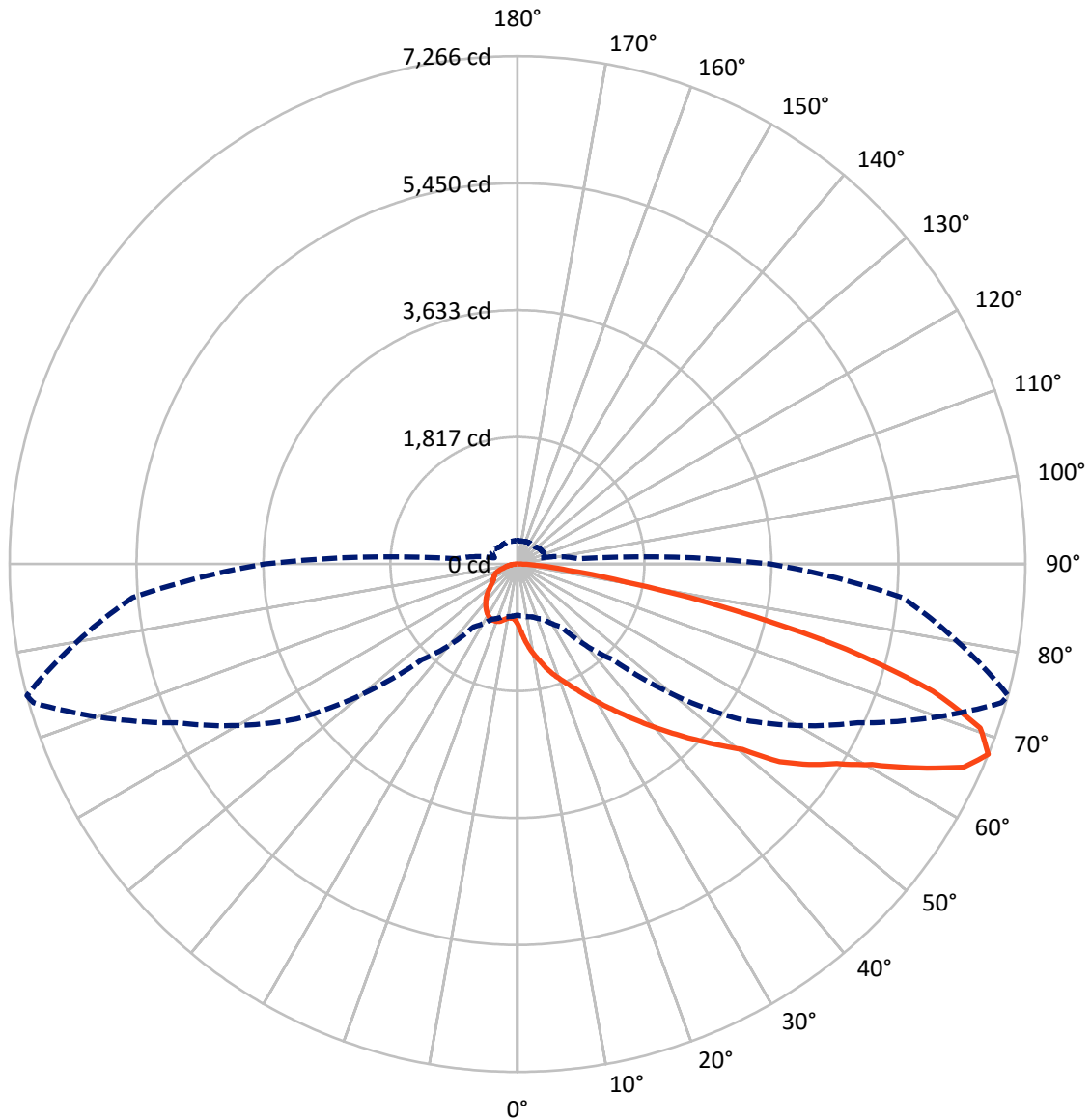


Based on 10 foot mounting height. Maximum calculated value = 18.1 fc
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P214592

CATALOG NUMBER: ARCH-AF24-70-D-U-T2R

Luminous Intensity Polar Plot



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

REPORT NUMBER: P214592

CATALOG NUMBER: ARCH-AF24-70-D-U-T2R

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1488.6	0.0	1488.6
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	7228.9	0.0	7228.9
	% Fixture	82.9	0.0	82.9
Total	Lumens	8717.6	0.0	8717.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.5	1.2
10°-20°	366.7	4.2
20°-30°	668.9	7.7
30°-40°	1098.0	12.6
40°-50°	1587.8	18.2
50°-60°	1871.2	21.5
60°-70°	1818.4	20.9
70°-80°	1010.8	11.6
80°-90°	194.3	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°	8717.6	100.0
0°-180°	8717.6	100.0

Coefficient of Utilization



REPORT NUMBER: P214592

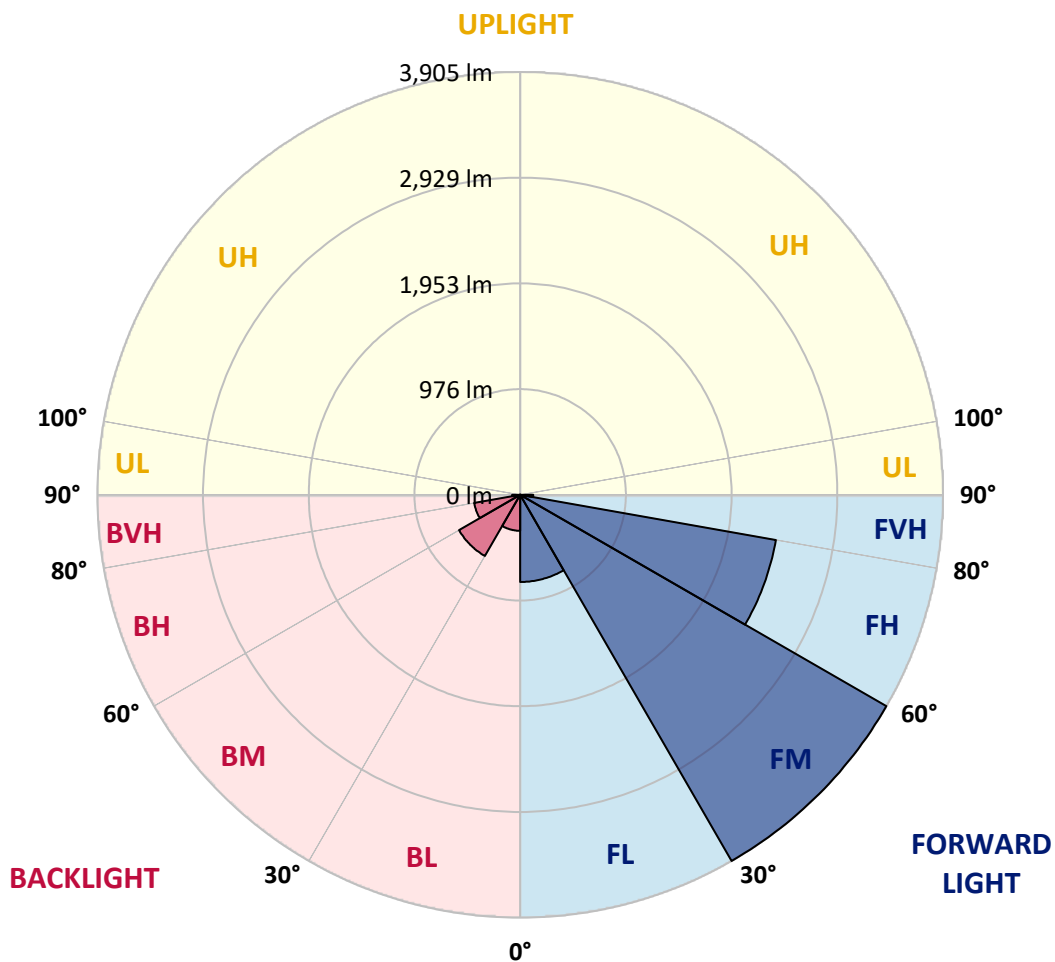
CATALOG NUMBER: ARCH-AF24-70-D-U-T2R

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	804.9	9.2			
FM (30°-60°)	3905.0	44.8			
FH (60°-80°)	2398.1	27.5			G2/5000
FVH (80°-90°)	121.0	1.4			G2/225
BL (0°-30°)	332.3	3.8	B1/500		
BM (30°-60°)	652.0	7.5	B1/1000		
BH (60°-80°)	431.0	4.9	B1/500		G1/500
BVH (80°-90°)	73.4	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: P214592

CATALOG NUMBER: ARCH-AF24-70-D-U-T2R

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	863.8	863.8	863.8	863.8	863.8	863.8	863.8	863.8	863.8	863.8	863.8
2.5°	1224.7	1228.4	1221.0	1204.6	1180.9	1137.2	1099.0	1031.4	971.4	964.0	900.3
5°	1439.7	1443.4	1434.3	1414.2	1388.7	1341.3	1288.4	1200.9	1104.4	1086.2	951.3
7.5°	1587.3	1589.2	1578.2	1558.2	1538.1	1490.7	1437.9	1339.5	1221.0	1206.5	1016.9
10°	1713.0	1716.7	1702.2	1689.4	1667.5	1620.1	1565.4	1461.6	1339.5	1319.4	1084.3
12.5°	1829.8	1833.3	1824.2	1813.3	1806.0	1762.2	1702.2	1578.2	1447.0	1425.2	1164.5
15°	1908.1	1911.7	1913.5	1928.2	1937.3	1906.3	1846.1	1711.3	1563.7	1543.6	1259.3
17.5°	1886.2	1895.3	1922.6	1975.5	2032.0	2033.8	1984.6	1842.4	1678.5	1656.6	1355.9
20°	1822.4	1829.8	1862.5	1942.7	2053.9	2117.6	2114.0	1975.5	1786.0	1762.2	1445.2
22.5°	1875.3	1884.4	1884.4	1933.6	2042.9	2161.4	2208.8	2106.8	1893.5	1871.6	1534.5
25°	2101.2	2106.8	2068.4	2048.4	2088.5	2197.8	2287.1	2248.9	2024.7	1999.2	1631.1
27.5°	2416.5	2407.4	2360.0	2279.9	2236.1	2265.2	2356.4	2383.7	2176.0	2145.0	1731.3
30°	2729.9	2724.5	2669.8	2562.3	2463.9	2402.0	2432.9	2504.0	2340.0	2303.6	1827.9
32.5°	3023.4	3014.3	2954.2	2828.4	2717.3	2602.4	2542.2	2613.3	2514.9	2473.0	1935.4
35°	3293.1	3269.5	3209.3	3078.1	2963.3	2853.9	2706.3	2717.3	2704.5	2660.7	2053.9
37.5°	3511.8	3493.6	3428.0	3305.9	3183.7	3079.9	2925.0	2835.7	2908.6	2866.7	2190.5
40°	3705.0	3685.0	3617.5	3495.4	3382.4	3284.0	3161.9	2979.7	3138.2	3090.8	2343.7
42.5°	3850.8	3836.2	3781.5	3661.2	3551.9	3462.6	3402.4	3161.9	3377.0	3331.3	2511.3
45°	3929.2	3914.5	3885.4	3788.8	3688.6	3619.3	3624.8	3378.8	3626.7	3588.3	2709.9
47.5°	3832.6	3843.5	3869.0	3850.8	3788.8	3756.0	3823.5	3602.9	3905.4	3869.0	2925.0
50°	3573.8	3584.7	3686.7	3812.5	3834.3	3874.4	4002.0	3861.7	4200.6	4171.5	3191.1
52.5°	2937.7	2997.9	3280.4	3581.0	3787.0	3952.8	4200.6	4246.3	4698.2	4698.2	3661.2
55°	2219.7	2272.6	2595.1	3120.0	3602.9	3960.1	4346.5	4506.8	5057.3	5064.5	3907.3
57.5°	1798.8	1831.5	1990.0	2527.7	3216.6	3869.0	4519.6	4731.0	5356.1	5388.9	4224.4
60°	1459.8	1478.0	1581.9	1955.5	2682.6	3623.0	4643.5	5051.7	5782.5	5828.1	4629.0
62.5°	1173.6	1191.8	1261.1	1485.2	2104.9	3161.9	4621.7	5385.2	6351.1	6425.9	5159.3
65°	936.7	956.8	1002.3	1140.8	1560.0	2589.7	4397.5	5556.6	6939.8	7012.6	5511.0
67.5°	730.8	749.0	780.0	871.1	1099.0	1937.3	3867.2	5376.1	7204.0	7266.0	5529.3
70°	552.2	561.3	586.9	645.2	785.4	1286.7	3027.0	4771.1	6967.1	7023.6	5164.8
72.5°	428.3	426.5	441.0	470.1	548.5	885.7	2006.5	3880.0	6159.8	6218.1	4406.6
75°	350.0	348.1	357.2	366.3	397.3	594.1	1184.6	2921.3	4971.5	4860.3	3305.9
77.5°	295.2	293.4	302.5	304.3	317.1	410.0	674.3	1922.6	3316.8	3125.4	1862.5
80°	249.7	247.9	258.8	262.4	271.5	300.7	388.2	1040.6	1665.7	1578.2	889.4
82.5°	187.7	195.0	215.0	224.1	235.1	222.3	240.6	459.2	772.7	738.1	386.4
85°	91.1	107.5	162.2	180.4	193.1	140.3	164.0	216.9	348.1	331.6	156.7
87.5°	31.0	27.3	96.6	114.8	125.7	63.8	91.1	120.3	143.9	131.2	49.2
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: P214592

CATALOG NUMBER: ARCH-AF24-70-D-U-T2R

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	863.8	863.8	863.8	863.8	863.8	863.8	863.8	863.8	863.8	863.8	863.8
2.5°	873.0	845.6	805.5	774.6	754.5	738.1	730.8	729.0	725.4	723.5	723.5
5°	891.2	842.0	780.0	747.2	738.1	730.8	734.5	736.2	736.2	736.2	736.2
7.5°	918.5	849.3	774.6	752.7	750.8	750.8	761.8	767.2	770.9	770.9	770.9
10°	954.9	862.0	783.7	765.4	770.9	774.6	787.3	794.5	798.2	800.0	801.9
12.5°	1004.1	889.4	801.9	787.3	794.5	796.4	805.5	809.2	812.8	814.6	814.6
15°	1069.8	929.5	831.0	812.8	814.6	812.8	812.8	809.2	807.3	807.3	811.0
17.5°	1137.2	967.7	856.5	831.0	823.8	809.2	798.2	789.1	783.7	780.0	781.8
20°	1204.6	1002.3	871.1	834.6	814.6	790.9	770.9	758.1	750.8	743.6	747.2
22.5°	1272.0	1035.1	876.6	823.8	794.5	760.0	738.1	718.0	701.6	690.7	692.5
25°	1346.8	1071.5	876.6	811.0	767.2	730.8	703.5	670.6	646.9	637.8	641.5
27.5°	1421.5	1102.5	867.5	787.3	736.2	699.8	659.7	621.4	606.9	601.4	603.2
30°	1496.2	1126.3	847.4	758.1	703.5	663.4	610.5	585.0	566.8	552.2	554.0
32.5°	1570.9	1142.6	820.1	721.7	668.8	617.8	574.1	544.9	512.1	493.9	495.7
35°	1656.6	1155.4	787.3	685.3	630.5	577.7	544.9	497.6	462.9	448.4	444.7
37.5°	1745.9	1164.5	752.7	645.2	592.3	548.5	515.8	457.5	424.6	404.6	402.7
40°	1842.4	1168.2	710.7	603.2	555.9	530.3	477.5	433.7	377.3	364.5	364.5
42.5°	1957.3	1166.4	668.8	561.3	515.8	488.5	450.1	430.0	380.8	368.2	360.8
45°	2088.5	1166.4	623.3	512.1	475.7	435.6	419.2	406.4	373.6	379.1	382.7
47.5°	2237.9	1162.7	568.6	472.0	442.8	408.3	399.2	371.7	359.1	362.6	366.3
50°	2443.8	1168.2	519.4	439.2	419.2	389.9	379.1	364.5	359.1	360.8	359.1
52.5°	2729.9	1149.9	472.0	419.2	400.9	362.6	362.6	360.8	362.6	360.8	360.8
55°	2886.7	1109.9	437.4	408.3	388.2	350.0	357.2	360.8	364.5	362.6	362.6
57.5°	3109.1	1082.5	410.0	400.9	380.8	346.3	353.5	360.8	362.6	360.8	360.8
60°	3371.4	1064.3	391.8	402.7	375.4	346.3	355.4	360.8	359.1	357.2	357.2
62.5°	3675.9	1057.0	379.1	408.3	370.0	348.1	355.4	360.8	353.5	351.7	351.7
65°	3790.6	991.4	362.6	411.8	373.6	348.1	353.5	355.4	346.3	344.4	342.6
67.5°	3613.9	878.4	339.0	404.6	384.5	348.1	348.1	346.3	335.3	333.5	329.9
70°	3218.4	729.0	302.5	380.8	391.8	350.0	340.7	331.6	320.7	320.7	313.4
72.5°	2635.2	574.1	255.1	339.0	386.4	355.4	326.2	313.4	300.7	300.7	293.4
75°	1899.0	428.3	204.1	282.4	362.6	353.5	308.0	291.5	277.0	275.2	266.1
77.5°	1082.5	300.7	165.8	220.5	322.5	344.4	291.5	266.1	249.7	244.2	238.8
80°	555.9	202.3	134.8	173.1	267.9	319.0	278.9	236.9	218.7	209.6	200.5
82.5°	264.2	134.8	103.8	127.6	202.3	278.9	262.4	204.1	184.0	173.1	162.2
85°	118.5	80.2	69.3	82.0	143.9	216.9	231.5	167.7	143.9	180.4	133.1
87.5°	38.3	36.4	36.4	38.3	69.3	94.7	169.5	123.9	114.8	94.7	80.2
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)