

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: P214608

Luminaire Tested: **ARCH-AF24-90-D-U-T2R-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214608
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-AF24-90-D-U-T2R-7050
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 1180mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9870 lumens
Efficiency: N/A
Efficacy: 105.0 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

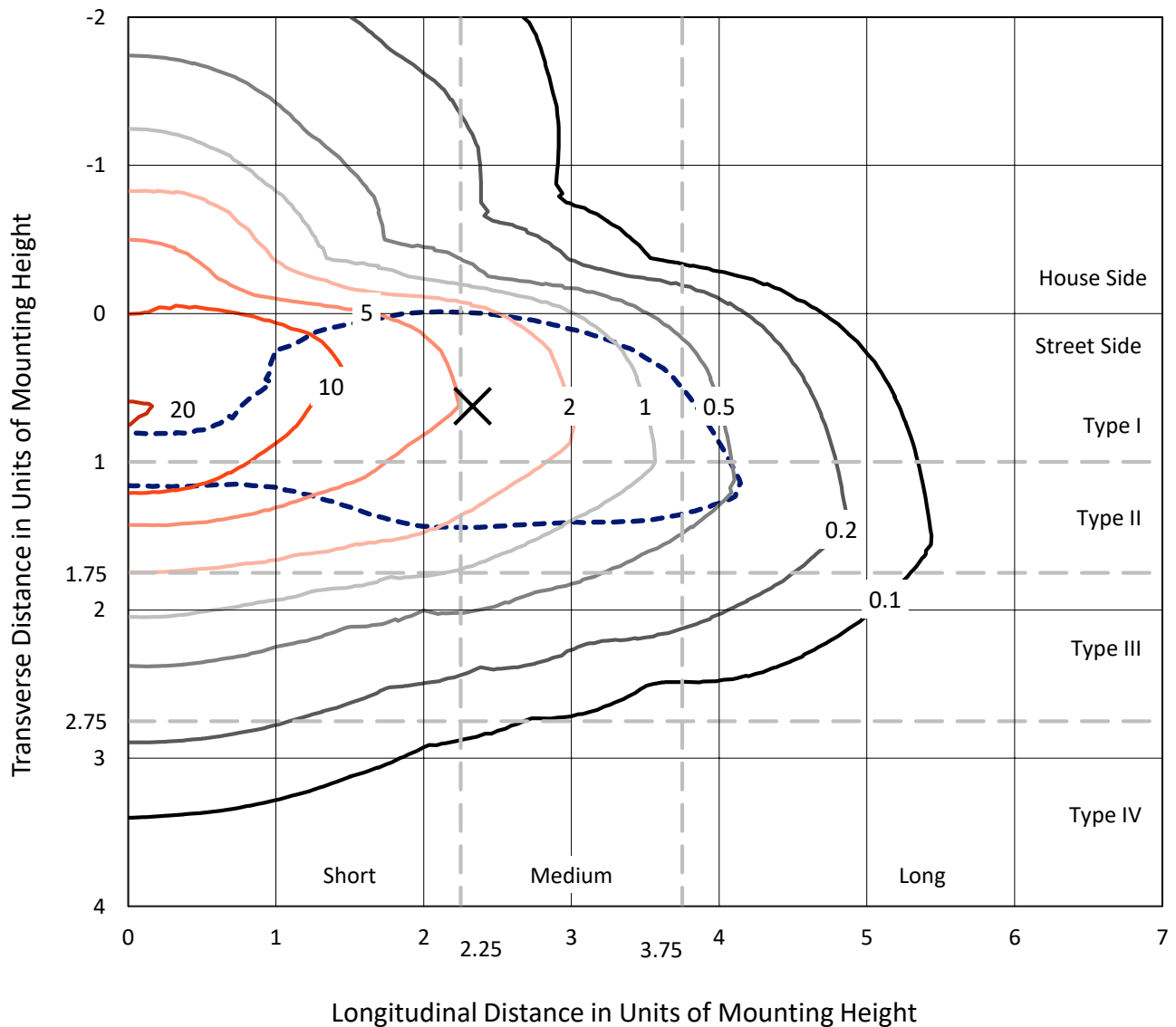
Input Watts (W): 94
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P214608
 CATALOG NUMBER: ARCH-AF24-90-D-U-T2R-7050

Iso-Footcandle Lines of Horizontal Illumination

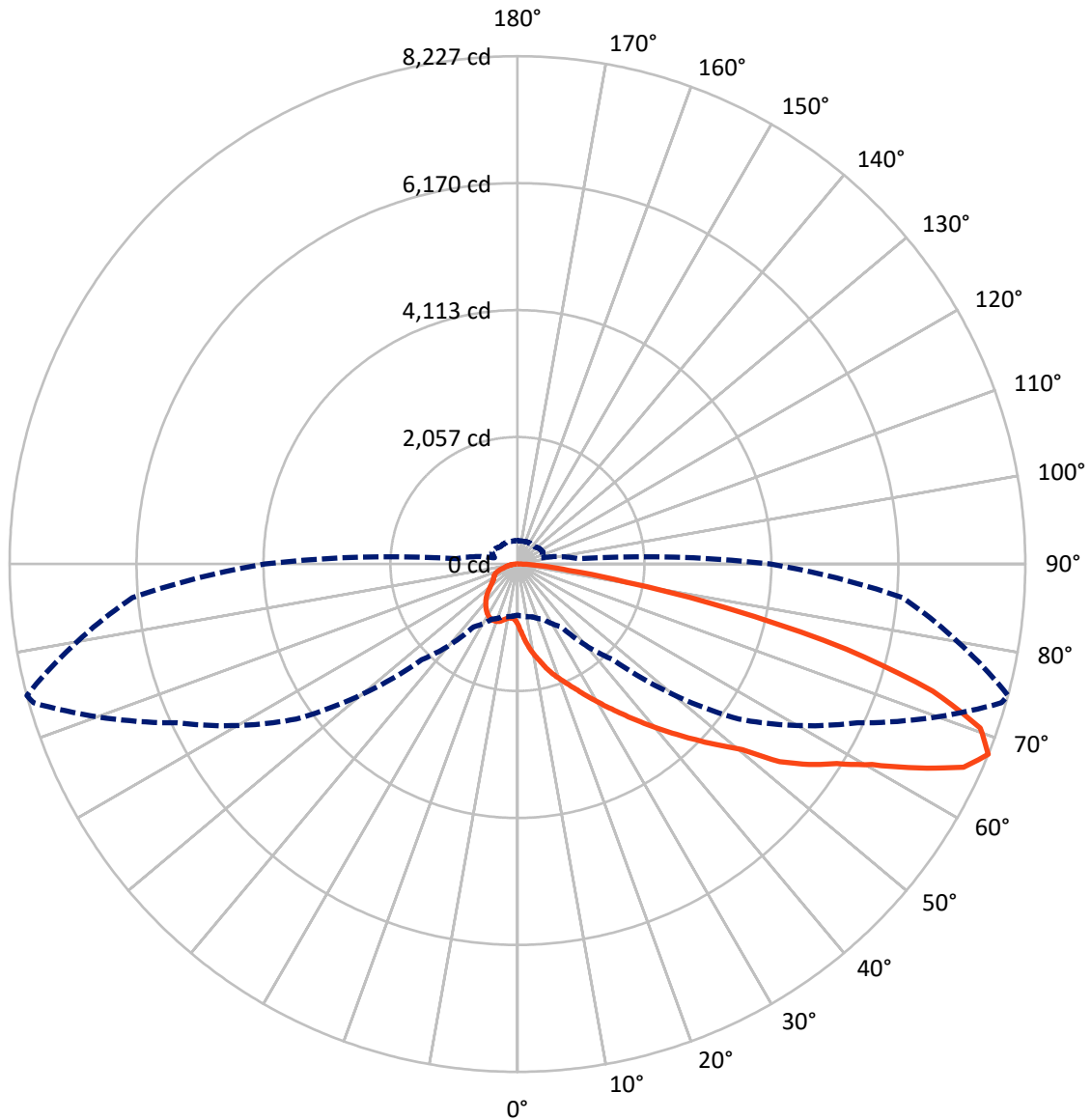
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 20.5 fc
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P214608
CATALOG NUMBER: ARCH-AF24-90-D-U-T2R-7050

Luminous Intensity Polar Plot



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



REPORT NUMBER: P214608

CATALOG NUMBER: ARCH-AF24-90-D-U-T2R-7050

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1685.4	0.0	1685.4
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	8184.6	0.0	8184.6
	% Fixture	82.9	0.0	82.9
Total	Lumens	9870.0	0.0	9870.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.9	1.2
10°-20°	415.2	4.2
20°-30°	757.3	7.7
30°-40°	1243.1	12.6
40°-50°	1797.7	18.2
50°-60°	2118.6	21.5
60°-70°	2058.8	20.9
70°-80°	1144.4	11.6
80°-90°	220.0	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°	9870.0	100.0
0°-180°	9870.0	100.0

Coefficient of Utilization



REPORT NUMBER: P214608

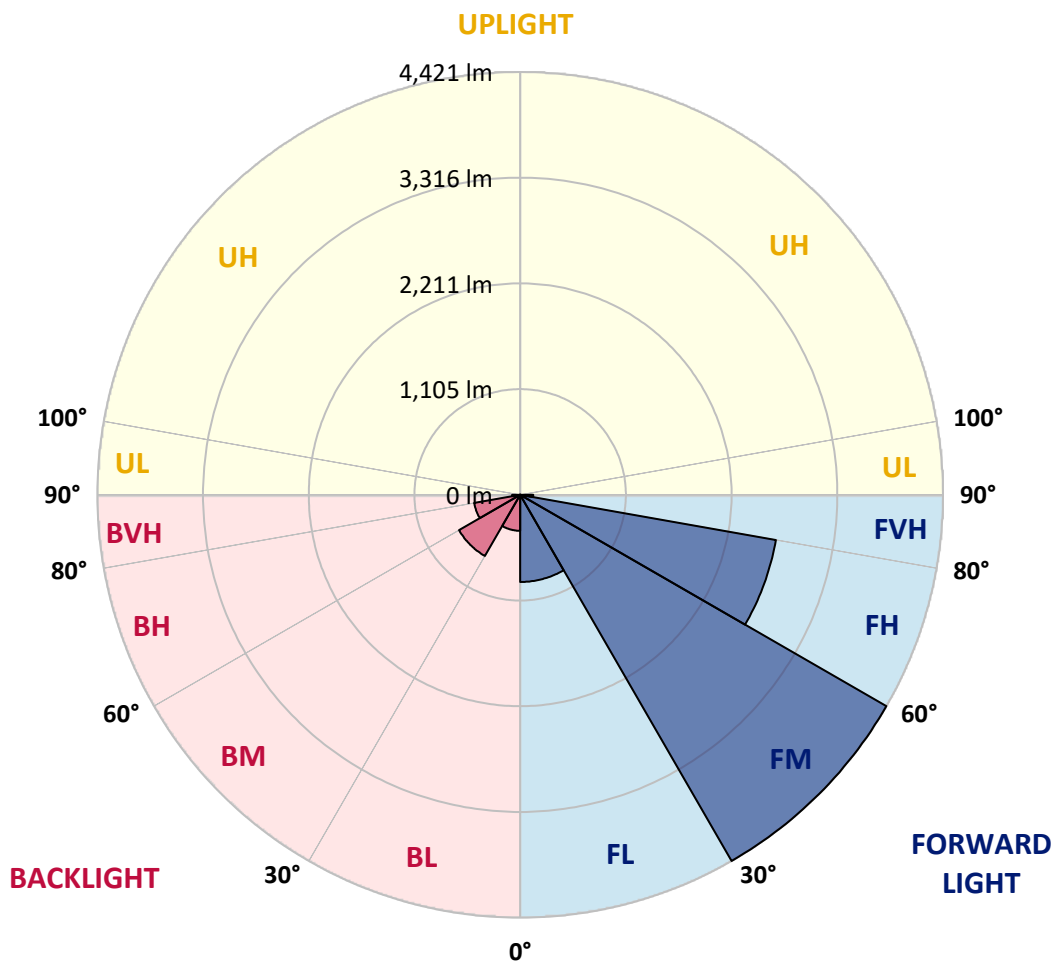
CATALOG NUMBER: ARCH-AF24-90-D-U-T2R-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	911.3	9.2			
FM	(30°-60°)	4421.2	44.8			
FH	(60°-80°)	2715.1	27.5			G2/5000
FVH	(80°-90°)	136.9	1.4			G2/225
BL	(0°-30°)	376.2	3.8	B1/500		
BM	(30°-60°)	738.1	7.5	B1/1000		
BH	(60°-80°)	488.0	4.9	B1/500		G1/500
BVH	(80°-90°)	83.1	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: P214608

CATALOG NUMBER: ARCH-AF24-90-D-U-T2R-7050

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	978.0	978.0	978.0	978.0	978.0	978.0	978.0	978.0	978.0	978.0	978.0
2.5°	1386.6	1390.7	1382.4	1363.9	1337.0	1287.5	1244.2	1167.8	1099.8	1091.5	1019.3
5°	1630.0	1634.2	1623.8	1601.1	1572.3	1518.6	1458.8	1359.7	1250.4	1229.7	1077.1
7.5°	1797.2	1799.2	1786.8	1764.2	1741.5	1687.8	1628.0	1516.6	1382.4	1365.9	1151.3
10°	1939.5	1943.7	1927.2	1912.7	1888.0	1834.3	1772.4	1654.8	1516.6	1493.9	1227.7
12.5°	2071.6	2075.7	2065.4	2053.0	2044.8	1995.2	1927.2	1786.8	1638.3	1613.5	1318.5
15°	2160.3	2164.4	2166.5	2183.0	2193.3	2158.2	2090.2	1937.5	1770.3	1747.6	1425.8
17.5°	2135.6	2145.9	2176.8	2236.7	2300.6	2302.7	2247.0	2086.0	1900.3	1875.6	1535.1
20°	2063.3	2071.6	2108.7	2199.5	2325.4	2397.6	2393.5	2236.7	2022.1	1995.2	1636.2
22.5°	2123.2	2133.5	2133.5	2189.2	2313.0	2447.1	2500.8	2385.2	2143.8	2119.0	1737.3
25°	2379.0	2385.2	2341.9	2319.2	2364.6	2488.4	2589.5	2546.2	2292.4	2263.5	1846.7
27.5°	2736.0	2725.7	2672.0	2581.2	2531.7	2564.7	2667.9	2698.8	2463.6	2428.5	1960.2
30°	3090.9	3084.7	3022.8	2901.0	2789.6	2719.5	2754.6	2835.0	2649.3	2608.1	2069.5
32.5°	3423.1	3412.8	3344.7	3202.3	3076.4	2946.4	2878.4	2958.8	2847.4	2799.9	2191.3
35°	3728.4	3701.6	3633.5	3485.0	3355.0	3231.2	3064.1	3076.4	3062.0	3012.5	2325.4
37.5°	3976.0	3955.4	3881.1	3742.9	3604.6	3487.0	3311.7	3210.5	3293.1	3245.6	2480.1
40°	4194.8	4172.1	4095.7	3957.5	3829.5	3718.1	3579.9	3373.6	3553.1	3499.4	2653.4
42.5°	4359.8	4343.3	4281.4	4145.2	4021.4	3920.3	3852.2	3579.9	3823.4	3771.8	2843.3
45°	4448.5	4432.0	4399.0	4289.7	4176.2	4097.8	4104.0	3825.4	4106.0	4062.7	3068.2
47.5°	4339.2	4351.6	4380.5	4359.8	4289.7	4252.5	4328.9	4079.2	4421.7	4380.5	3311.7
50°	4046.2	4058.6	4174.1	4316.5	4341.3	4386.6	4531.1	4372.2	4756.0	4723.0	3612.9
52.5°	3326.1	3394.2	3714.0	4054.5	4287.6	4475.4	4756.0	4807.6	5319.3	5319.3	4145.2
55°	2513.1	2573.0	2938.2	3532.4	4079.2	4483.6	4921.1	5102.6	5725.8	5734.0	4423.8
57.5°	2036.5	2073.7	2253.2	2861.8	3641.8	4380.5	5117.1	5356.4	6064.1	6101.3	4782.8
60°	1652.7	1673.4	1791.0	2214.0	3037.2	4101.9	5257.4	5719.6	6547.0	6598.5	5240.9
62.5°	1328.8	1349.4	1427.8	1681.6	2383.2	3579.9	5232.6	6097.2	7190.7	7275.3	5841.3
65°	1060.6	1083.3	1134.8	1291.6	1766.2	2932.0	4978.8	6291.1	7857.2	7939.7	6239.5
67.5°	827.4	848.0	883.1	986.3	1244.2	2193.3	4378.4	6086.8	8156.4	8226.5	6260.2
70°	625.2	635.5	664.4	730.4	889.3	1456.7	3427.2	5401.8	7888.1	7952.1	5847.5
72.5°	484.9	482.8	499.3	532.3	621.1	1002.8	2271.7	4392.8	6974.1	7040.1	4989.1
75°	396.2	394.1	404.4	414.7	449.8	672.6	1341.2	3307.5	5628.8	5502.9	3742.9
77.5°	334.3	332.2	342.5	344.6	359.0	464.3	763.4	2176.8	3755.3	3538.6	2108.7
80°	282.7	280.6	293.0	297.1	307.4	340.5	439.5	1178.2	1885.9	1786.8	1006.9
82.5°	212.5	220.8	243.5	253.8	266.2	251.7	272.4	520.0	874.9	835.7	437.4
85°	103.2	121.7	183.6	204.3	218.7	158.9	185.7	245.5	394.1	375.5	177.4
87.5°	35.1	31.0	109.4	130.0	142.4	72.2	103.2	136.2	163.0	148.6	55.7
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: P214608

CATALOG NUMBER: ARCH-AF24-90-D-U-T2R-7050

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	978.0	978.0	978.0	978.0	978.0	978.0	978.0	978.0	978.0	978.0	978.0
2.5°	988.3	957.4	912.0	876.9	854.2	835.7	827.4	825.3	821.2	819.1	819.1
5°	1009.0	953.3	883.1	846.0	835.7	827.4	831.5	833.6	833.6	833.6	833.6
7.5°	1039.9	961.5	876.9	852.2	850.1	850.1	862.5	868.7	872.8	872.8	872.8
10°	1081.2	976.0	887.2	866.6	872.8	876.9	891.4	899.6	903.7	905.8	907.9
12.5°	1136.9	1006.9	907.9	891.4	899.6	901.7	912.0	916.1	920.2	922.3	922.3
15°	1211.2	1052.3	940.9	920.2	922.3	920.2	920.2	916.1	914.1	914.1	918.2
17.5°	1287.5	1095.6	969.8	940.9	932.6	916.1	903.7	893.4	887.2	883.1	885.2
20°	1363.9	1134.8	986.3	945.0	922.3	895.5	872.8	858.3	850.1	841.8	846.0
22.5°	1440.2	1172.0	992.5	932.6	899.6	860.4	835.7	813.0	794.4	782.0	784.1
25°	1524.8	1213.2	992.5	918.2	868.7	827.4	796.4	759.3	732.5	722.2	726.3
27.5°	1609.4	1248.3	982.1	891.4	833.6	792.3	746.9	703.6	687.1	680.9	683.0
30°	1694.0	1275.1	959.5	858.3	796.4	751.1	691.2	662.3	641.7	625.2	627.3
32.5°	1778.6	1293.7	928.5	817.1	757.2	699.5	650.0	616.9	579.8	559.2	561.2
35°	1875.6	1308.2	891.4	775.8	713.9	654.1	616.9	563.3	524.1	507.6	503.5
37.5°	1976.7	1318.5	852.2	730.4	670.6	621.1	583.9	517.9	480.8	458.1	456.0
40°	2086.0	1322.6	804.7	683.0	629.3	600.4	540.6	491.1	427.1	412.7	412.7
42.5°	2216.0	1320.5	757.2	635.5	583.9	553.0	509.6	486.9	431.2	416.8	408.5
45°	2364.6	1320.5	705.7	579.8	538.5	493.1	474.6	460.1	423.0	429.2	433.3
47.5°	2533.8	1316.4	643.8	534.4	501.4	462.2	451.9	420.9	406.5	410.6	414.7
50°	2766.9	1322.6	588.1	497.3	474.6	441.6	429.2	412.7	406.5	408.5	406.5
52.5°	3090.9	1302.0	534.4	474.6	453.9	410.6	410.6	408.5	410.6	408.5	408.5
55°	3268.3	1256.6	495.2	462.2	439.5	396.2	404.4	408.5	412.7	410.6	410.6
57.5°	3520.0	1225.6	464.3	453.9	431.2	392.0	400.3	408.5	410.6	408.5	408.5
60°	3817.2	1205.0	443.6	456.0	425.0	392.0	402.4	408.5	406.5	404.4	404.4
62.5°	4161.7	1196.7	429.2	462.2	418.9	394.1	402.4	408.5	400.3	398.2	398.2
65°	4291.7	1122.5	410.6	466.3	423.0	394.1	400.3	402.4	392.0	390.0	387.9
67.5°	4091.6	994.5	383.8	458.1	435.4	394.1	394.1	392.0	379.7	377.6	373.5
70°	3643.8	825.3	342.5	431.2	443.6	396.2	385.8	375.5	363.1	363.1	354.9
72.5°	2983.6	650.0	288.9	383.8	437.4	402.4	369.3	354.9	340.5	340.5	332.2
75°	2150.0	484.9	231.1	319.8	410.6	400.3	348.7	330.1	313.6	311.6	301.2
77.5°	1225.6	340.5	187.8	249.7	365.2	390.0	330.1	301.2	282.7	276.5	270.3
80°	629.3	229.0	152.7	196.0	303.3	361.1	315.7	268.2	247.6	237.3	227.0
82.5°	299.2	152.7	117.6	144.4	229.0	315.7	297.1	231.1	208.4	196.0	183.6
85°	134.1	90.8	78.4	92.9	163.0	245.5	262.0	189.8	163.0	204.3	150.6
87.5°	43.3	41.3	41.3	43.3	78.4	107.3	191.9	140.3	130.0	107.3	90.8
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)