

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: P214594

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214594
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
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 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: 10096.5 lumens
Efficiency: N/A
Efficacy: 107.4 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

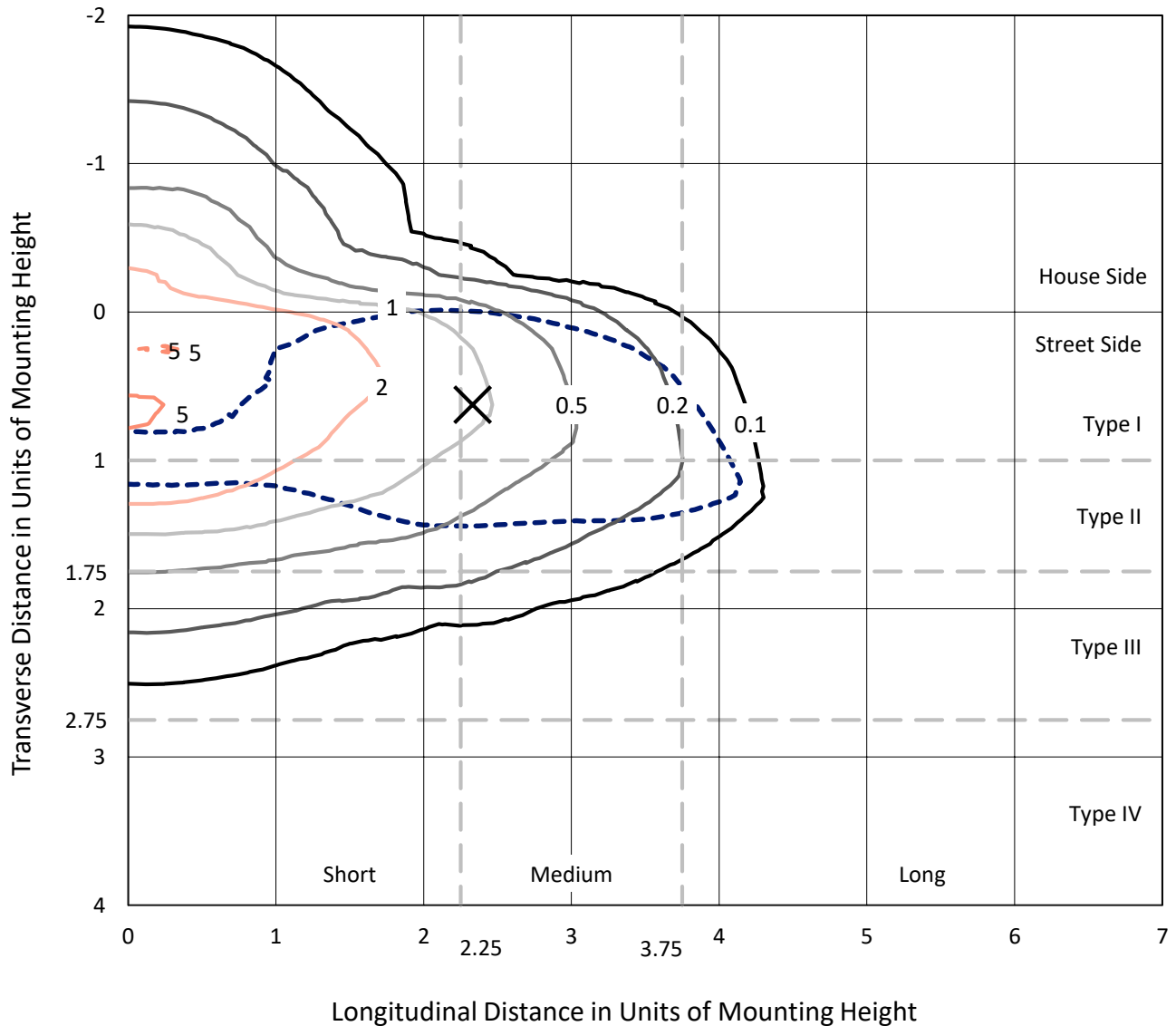


REPORT NUMBER: P214594

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

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

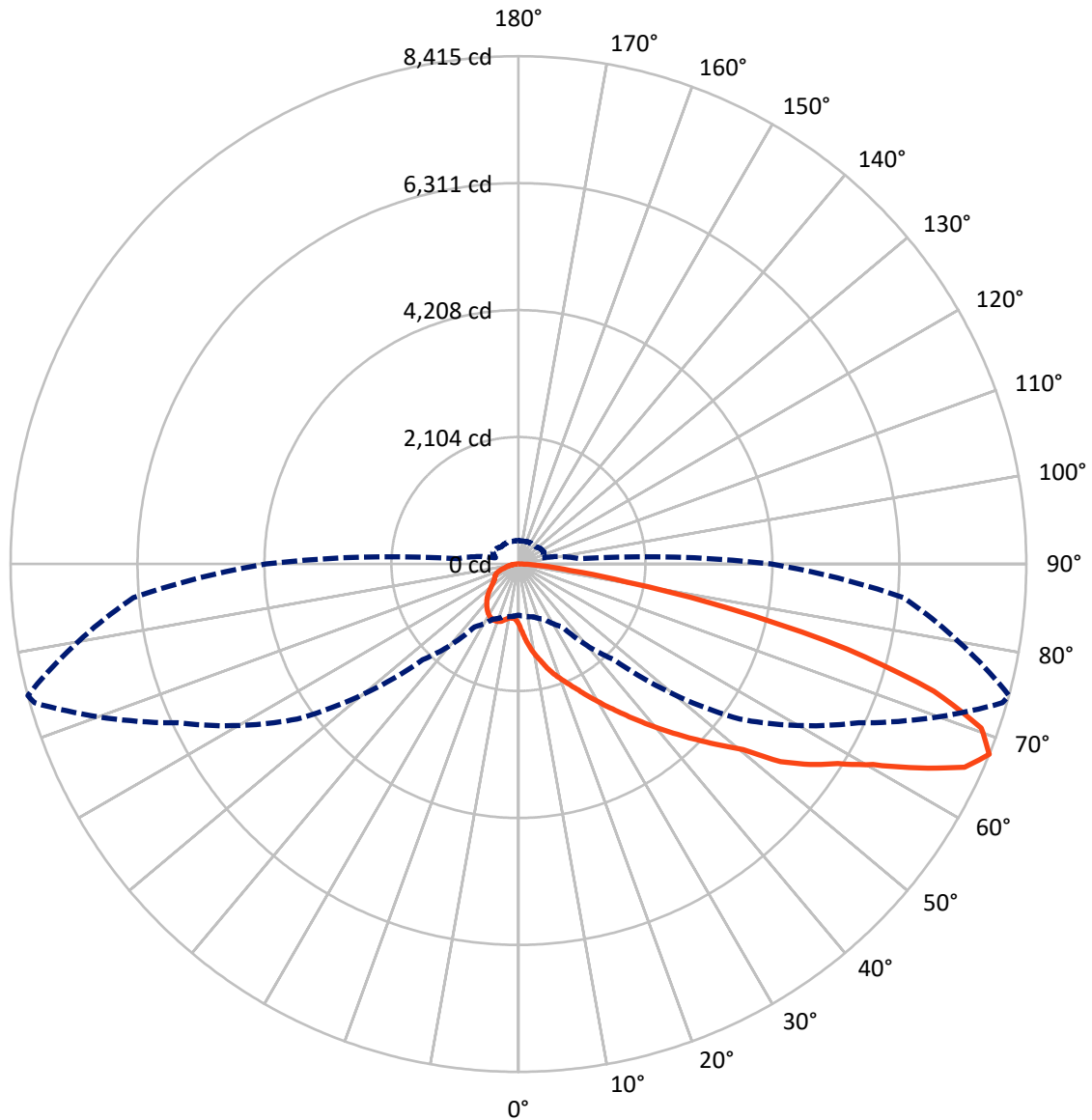


Based on 20 foot mounting height. Maximum calculated value = 5.2 fc
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P214594

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

Luminous Intensity Polar Plot



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



REPORT NUMBER: P214594

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

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1724.1	0.0	1724.1
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	8372.4	0.0	8372.4
	% Fixture	82.9	0.0	82.9
Total	Lumens	10096.5	0.0	10096.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.5	1.2
10°-20°	424.8	4.2
20°-30°	774.7	7.7
30°-40°	1271.6	12.6
40°-50°	1839.0	18.2
50°-60°	2167.2	21.5
60°-70°	2106.0	20.9
70°-80°	1170.6	11.6
80°-90°	225.1	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°	10096.5	100.0
0°-180°	10096.5	100.0



REPORT NUMBER: P214594

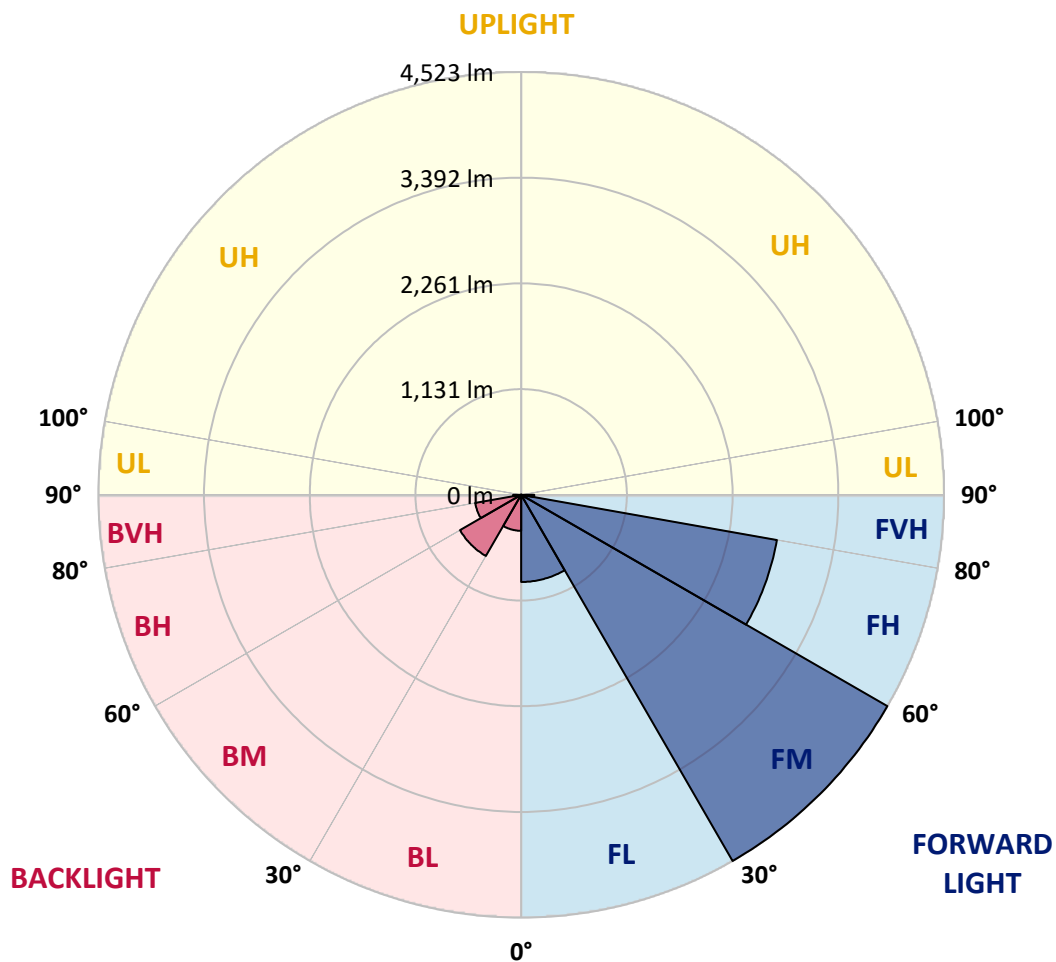
CATALOG NUMBER: ARCH-AF24-90-D-U-T2R

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	932.2	9.2			
FM (30°-60°)	4522.7	44.8			
FH (60°-80°)	2777.4	27.5			G2/5000
FVH (80°-90°)	140.1	1.4			G2/225
BL (0°-30°)	384.8	3.8	B1/500		
BM (30°-60°)	755.1	7.5	B1/1000		
BH (60°-80°)	499.2	4.9	B1/500		G1/500
BVH (80°-90°)	85.0	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: P214594

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

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	1000.4	1000.4	1000.4	1000.4	1000.4	1000.4	1000.4	1000.4	1000.4	1000.4	1000.4
2.5°	1418.4	1422.6	1414.1	1395.2	1367.7	1317.0	1272.8	1194.6	1125.0	1116.6	1042.7
5°	1667.4	1671.7	1661.1	1637.8	1608.4	1553.5	1492.3	1390.9	1279.1	1257.9	1101.8
7.5°	1838.4	1840.5	1827.8	1804.7	1781.5	1726.5	1665.4	1551.4	1414.1	1397.2	1177.7
10°	1984.0	1988.3	1971.4	1956.6	1931.3	1876.4	1813.1	1692.8	1551.4	1528.2	1255.9
12.5°	2119.1	2123.3	2112.8	2100.1	2091.7	2041.0	1971.4	1827.8	1675.9	1650.5	1348.8
15°	2209.9	2214.1	2216.2	2233.1	2243.6	2207.7	2138.2	1982.0	1810.9	1787.7	1458.5
17.5°	2184.6	2195.2	2226.8	2288.0	2353.4	2355.5	2298.6	2133.9	1943.9	1918.6	1570.3
20°	2110.7	2119.1	2157.1	2250.0	2378.8	2452.6	2448.4	2288.0	2068.5	2041.0	1673.8
22.5°	2171.9	2182.5	2182.5	2239.4	2366.1	2503.3	2558.2	2439.9	2193.0	2167.6	1777.2
25°	2433.6	2439.9	2395.6	2372.4	2418.9	2545.5	2648.9	2604.6	2345.0	2315.4	1889.1
27.5°	2798.8	2788.3	2733.3	2640.4	2589.8	2623.6	2729.1	2760.7	2520.1	2484.2	2005.2
30°	3161.8	3155.5	3092.2	2967.6	2853.6	2781.9	2817.8	2900.1	2710.1	2668.0	2117.0
32.5°	3501.7	3491.1	3421.5	3275.8	3147.0	3014.0	2944.5	3026.7	2912.8	2864.2	2241.6
35°	3814.0	3786.6	3716.9	3565.0	3432.0	3305.4	3134.4	3147.0	3132.3	3081.6	2378.8
37.5°	4067.3	4046.2	3970.2	3828.8	3687.3	3567.0	3387.7	3284.2	3368.7	3320.1	2537.0
40°	4291.1	4267.9	4189.7	4048.3	3917.4	3803.4	3662.1	3451.0	3634.6	3579.7	2714.3
42.5°	4459.9	4443.0	4379.7	4240.3	4113.7	4010.3	3940.6	3662.1	3911.2	3858.4	2908.6
45°	4550.6	4533.7	4500.0	4388.2	4272.0	4191.8	4198.2	3913.2	4200.2	4155.9	3138.6
47.5°	4438.8	4451.5	4481.0	4459.9	4388.2	4350.1	4428.3	4172.8	4523.2	4481.0	3387.7
50°	4139.1	4151.7	4269.9	4415.6	4440.9	4487.3	4635.1	4472.5	4865.2	4831.4	3695.8
52.5°	3402.4	3472.1	3799.2	4147.6	4386.0	4578.1	4865.2	4917.9	5441.4	5441.4	4240.3
55°	2570.8	2632.1	3005.6	3613.5	4172.8	4586.5	5034.0	5219.7	5857.2	5865.6	4525.3
57.5°	2083.2	2121.3	2304.9	2927.5	3725.4	4481.0	5234.5	5479.3	6203.3	6241.3	4892.6
60°	1690.6	1711.8	1832.1	2264.8	3106.9	4196.0	5378.1	5850.9	6697.3	6749.9	5361.2
62.5°	1359.3	1380.4	1460.6	1720.2	2437.9	3662.1	5352.7	6237.1	7355.7	7442.3	5975.4
65°	1084.9	1108.2	1160.8	1321.2	1806.7	2999.3	5093.1	6435.5	8037.5	8121.9	6382.7
67.5°	846.4	867.5	903.4	1008.9	1272.8	2243.6	4478.9	6226.5	8343.6	8415.3	6403.9
70°	639.5	650.1	679.6	747.2	909.7	1490.1	3505.9	5525.8	8069.1	8134.6	5981.7
72.5°	496.0	493.9	510.8	544.5	635.4	1025.8	2323.8	4493.6	7134.2	7201.7	5103.6
75°	405.3	403.1	413.7	424.2	460.1	688.0	1372.0	3383.4	5758.0	5629.2	3828.8
77.5°	342.0	339.8	350.4	352.5	367.2	475.0	780.9	2226.8	3841.5	3619.8	2157.1
80°	289.2	287.0	299.7	303.9	314.5	348.3	449.6	1205.2	1929.2	1827.8	1030.0
82.5°	217.4	225.9	249.1	259.6	272.3	257.5	278.7	531.9	895.0	854.9	447.4
85°	105.6	124.5	187.8	209.0	223.7	162.5	190.0	251.1	403.1	384.1	181.5
87.5°	35.9	31.7	111.9	133.0	145.7	73.9	105.6	139.3	166.7	152.0	57.0
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: P214594

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

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1000.4	1000.4	1000.4	1000.4	1000.4	1000.4	1000.4	1000.4	1000.4	1000.4	1000.4
2.5°	1011.0	979.4	932.9	897.0	873.8	854.9	846.4	844.2	840.0	837.9	837.9
5°	1032.2	975.2	903.4	865.4	854.9	846.4	850.6	852.7	852.7	852.7	852.7
7.5°	1063.8	983.6	897.0	871.8	869.6	869.6	882.3	888.6	892.8	892.8	892.8
10°	1106.0	998.4	907.6	886.5	892.8	897.0	911.9	920.2	924.4	926.6	928.7
12.5°	1163.0	1030.0	928.7	911.9	920.2	922.4	932.9	937.1	941.3	943.5	943.5
15°	1239.0	1076.5	962.5	941.3	943.5	941.3	941.3	937.1	935.1	935.1	939.3
17.5°	1317.0	1120.7	992.1	962.5	954.0	937.1	924.4	913.9	907.6	903.4	905.5
20°	1395.2	1160.8	1008.9	966.7	943.5	916.1	892.8	878.0	869.6	861.1	865.4
22.5°	1473.3	1198.9	1015.3	954.0	920.2	880.1	854.9	831.7	812.6	799.9	802.1
25°	1559.8	1241.0	1015.3	939.3	888.6	846.4	814.7	776.7	749.3	738.8	743.0
27.5°	1646.3	1276.9	1004.6	911.9	852.7	810.5	764.0	719.7	702.9	696.5	698.7
30°	1732.9	1304.4	981.5	878.0	814.7	768.3	707.1	677.5	656.4	639.5	641.7
32.5°	1819.4	1323.4	949.8	835.9	774.6	715.6	664.9	631.1	593.1	572.0	574.1
35°	1918.6	1338.2	911.9	793.6	730.3	669.1	631.1	576.2	536.1	519.2	515.1
37.5°	2022.1	1348.8	871.8	747.2	686.0	635.4	597.3	529.8	491.8	468.6	466.5
40°	2133.9	1353.0	823.2	698.7	643.7	614.2	553.0	502.4	436.9	422.2	422.2
42.5°	2266.9	1350.8	774.6	650.1	597.3	565.7	521.3	498.1	441.1	426.4	417.9
45°	2418.9	1350.8	721.9	593.1	550.9	504.4	485.5	470.7	432.7	439.1	443.2
47.5°	2592.0	1346.6	658.6	546.7	512.9	472.8	462.3	430.6	415.8	420.0	424.2
50°	2830.4	1353.0	601.6	508.7	485.5	451.7	439.1	422.2	415.8	417.9	415.8
52.5°	3161.8	1331.9	546.7	485.5	464.3	420.0	420.0	417.9	420.0	417.9	417.9
55°	3343.3	1285.4	506.6	472.8	449.6	405.3	413.7	417.9	422.2	420.0	420.0
57.5°	3600.8	1253.7	475.0	464.3	441.1	401.0	409.5	417.9	420.0	417.9	417.9
60°	3904.8	1232.7	453.8	466.5	434.8	401.0	411.6	417.9	415.8	413.7	413.7
62.5°	4257.2	1224.2	439.1	472.8	428.5	403.1	411.6	417.9	409.5	407.3	407.3
65°	4390.2	1148.3	420.0	477.0	432.7	403.1	409.5	411.6	401.0	399.0	396.8
67.5°	4185.5	1017.3	392.6	468.6	445.4	403.1	403.1	401.0	388.4	386.3	382.1
70°	3727.4	844.2	350.4	441.1	453.8	405.3	394.7	384.1	371.4	371.4	363.0
72.5°	3052.1	664.9	295.5	392.6	447.4	411.6	377.8	363.0	348.3	348.3	339.8
75°	2199.3	496.0	236.4	327.1	420.0	409.5	356.7	337.7	320.8	318.8	308.1
77.5°	1253.7	348.3	192.1	255.4	373.6	399.0	337.7	308.1	289.2	282.8	276.5
80°	643.7	234.3	156.2	200.5	310.3	369.4	322.9	274.4	253.3	242.7	232.2
82.5°	306.1	156.2	120.3	147.7	234.3	322.9	303.9	236.4	213.2	200.5	187.8
85°	137.2	92.9	80.2	95.0	166.7	251.1	268.0	194.2	166.7	209.0	154.1
87.5°	44.3	42.2	42.2	44.3	80.2	109.8	196.3	143.5	133.0	109.8	92.9
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)