

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: P214593

Luminaire Tested: **ARCH-AF24-80-D-U-T2R**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214593  
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-AF24-80-D-U-T2R  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 1050mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9420.3 lumens  
Efficiency: N/A  
Efficacy: 113.5 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): 83  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

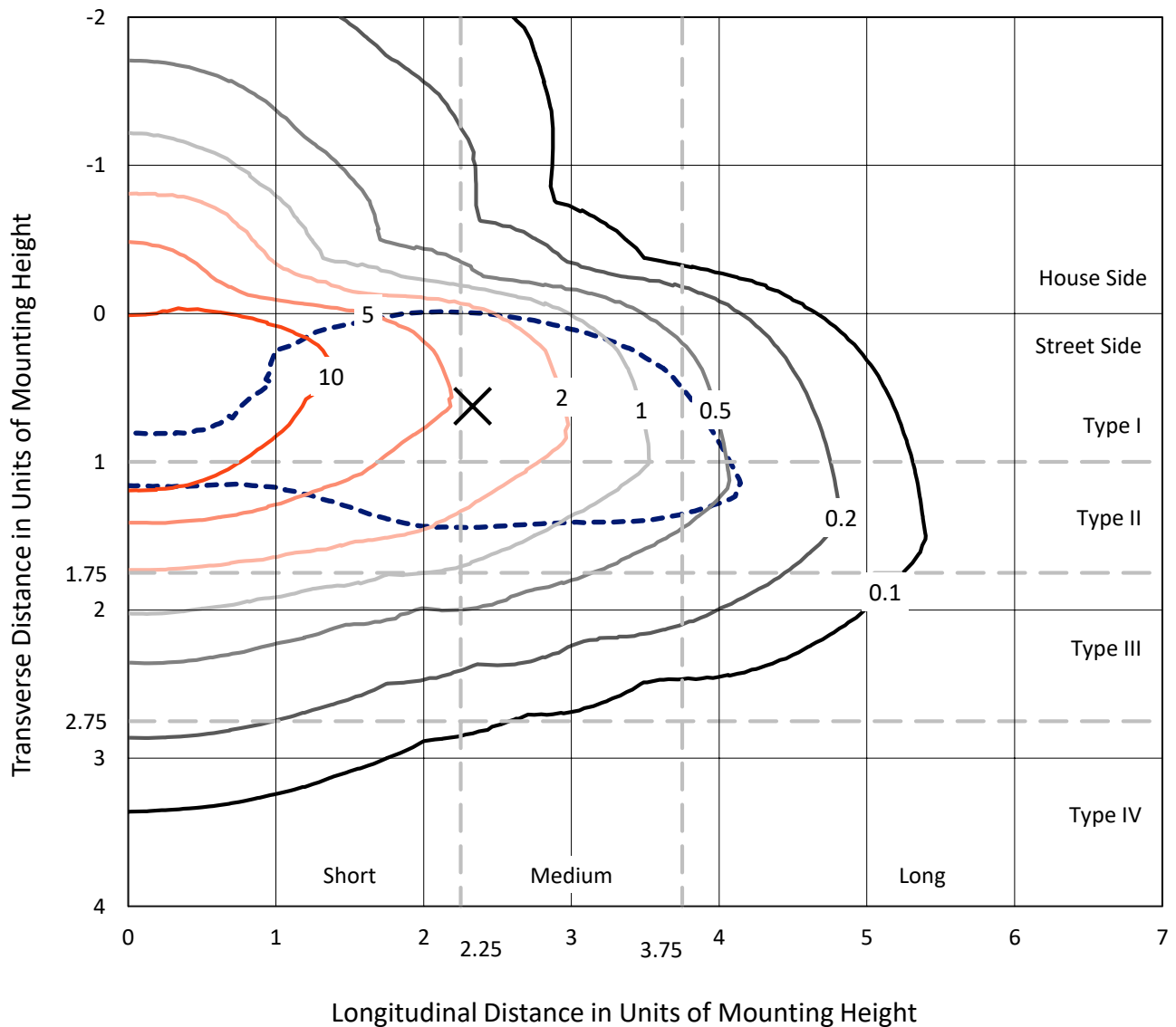


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

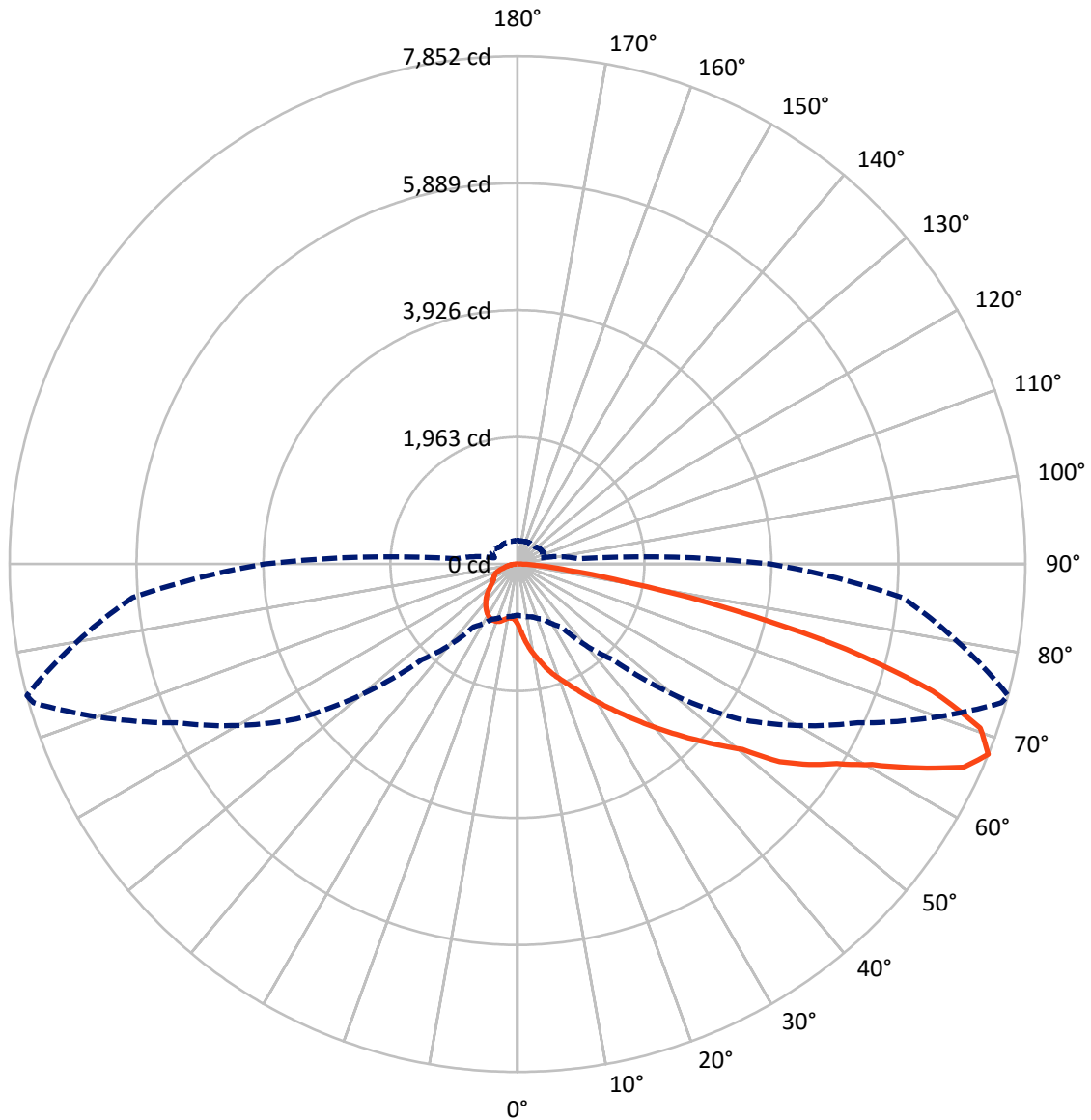


Based on 10 foot mounting height. Maximum calculated value = 19.5 fc  
 Type II - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



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

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1608.7	0.0	1608.7
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	7811.7	0.0	7811.7
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	9420.3	0.0	9420.3
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	109.7	1.2
10°-20°	396.3	4.2
20°-30°	722.8	7.7
30°-40°	1186.5	12.6
40°-50°	1715.8	18.2
50°-60°	2022.1	21.5
60°-70°	1965.0	20.9
70°-80°	1092.2	11.6
80°-90°	210.0	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°	9420.3	100.0
0°-180°	9420.3	100.0

**Coefficient of Utilization**



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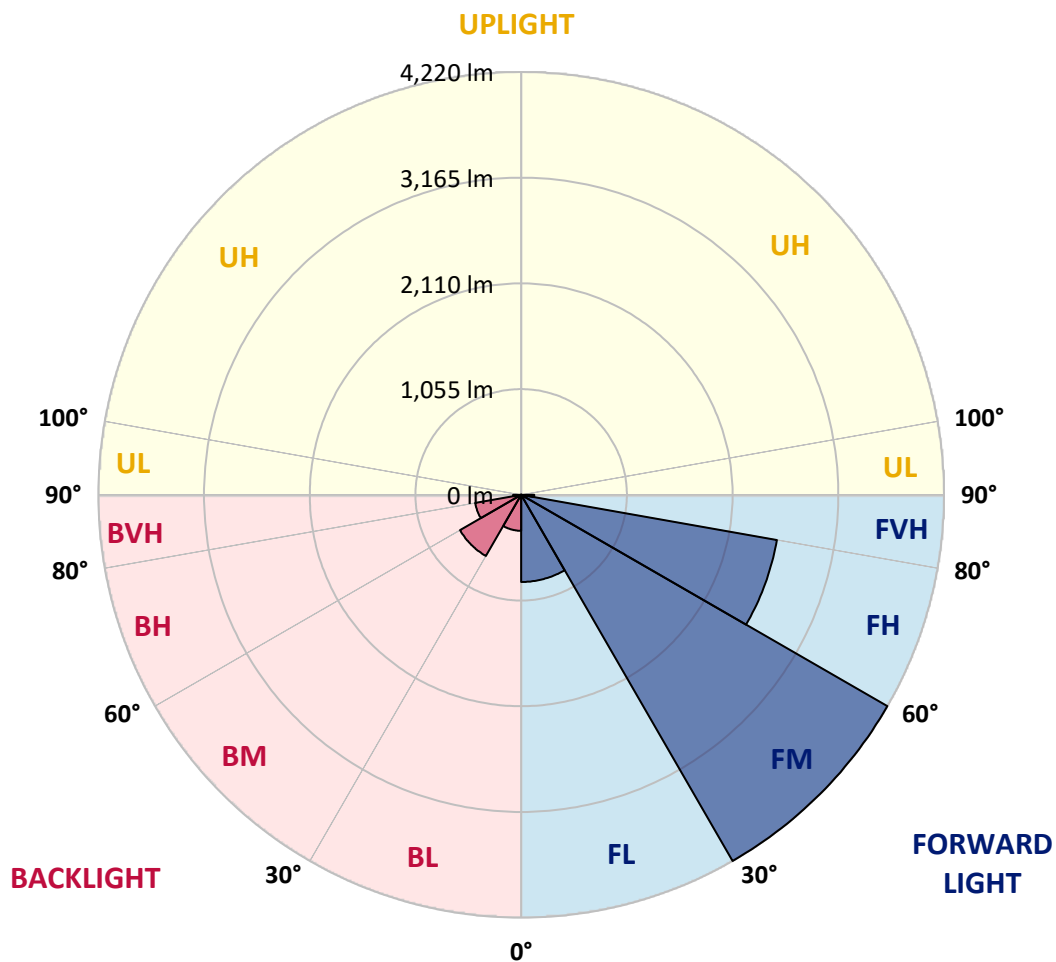
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	869.8	9.2			
FM	(30°-60°)	4219.8	44.8			
FH	(60°-80°)	2591.4	27.5			G2/5000
FVH	(80°-90°)	130.7	1.4			G2/225
BL	(0°-30°)	359.1	3.8	B1/500		
BM	(30°-60°)	704.5	7.5	B1/1000		
BH	(60°-80°)	465.8	4.9	B1/500		G1/500
BVH	(80°-90°)	79.3	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4
2.5°	1323.4	1327.4	1319.5	1301.7	1276.1	1228.9	1187.5	1114.6	1049.6	1041.8	972.8
5°	1555.8	1559.7	1549.9	1528.2	1500.7	1449.4	1392.3	1297.8	1193.4	1173.7	1028.0
7.5°	1715.3	1717.2	1705.5	1683.8	1662.1	1610.9	1553.8	1447.5	1319.5	1303.8	1098.9
10°	1851.1	1855.1	1839.4	1825.6	1801.9	1750.8	1691.7	1579.4	1447.5	1425.8	1171.8
12.5°	1977.3	1981.1	1971.3	1959.5	1951.6	1904.3	1839.4	1705.5	1563.7	1540.1	1258.4
15°	2061.9	2065.8	2067.8	2083.5	2093.4	2059.9	1995.0	1849.2	1689.7	1668.0	1360.8
17.5°	2038.2	2048.2	2077.6	2134.8	2195.8	2197.8	2144.6	1991.0	1813.8	1790.2	1465.2
20°	1969.4	1977.3	2012.7	2099.3	2219.4	2288.3	2284.5	2134.8	1929.9	1904.3	1561.6
22.5°	2026.5	2036.3	2036.3	2089.5	2207.6	2335.6	2386.9	2276.6	2046.1	2022.5	1658.2
25°	2270.6	2276.6	2235.1	2213.6	2256.8	2375.0	2471.6	2430.1	2187.9	2160.4	1762.5
27.5°	2611.4	2601.5	2550.3	2463.7	2416.4	2447.9	2546.3	2575.9	2351.4	2317.9	1870.9
30°	2950.1	2944.2	2885.0	2768.9	2662.5	2595.5	2629.1	2705.9	2528.6	2489.2	1975.2
32.5°	3267.1	3257.3	3192.3	3056.4	2936.3	2812.2	2747.2	2824.1	2717.7	2672.4	2091.4
35°	3558.5	3533.0	3468.0	3326.2	3202.1	3084.0	2924.4	2936.3	2922.5	2875.2	2219.4
37.5°	3794.9	3775.2	3704.3	3572.3	3440.4	3328.2	3160.8	3064.2	3143.0	3097.8	2367.1
40°	4003.6	3982.0	3909.1	3777.1	3655.1	3548.7	3416.8	3219.8	3391.2	3340.0	2532.5
42.5°	4161.2	4145.4	4086.4	3956.4	3838.2	3741.7	3676.8	3416.8	3649.2	3600.0	2713.8
45°	4245.9	4230.1	4198.6	4094.3	3985.9	3911.2	3917.0	3651.1	3919.0	3877.6	2928.4
47.5°	4141.5	4153.3	4180.9	4161.2	4094.3	4058.8	4131.7	3893.4	4220.3	4180.9	3160.8
50°	3861.8	3873.7	3984.0	4119.8	4143.5	4186.8	4324.6	4173.0	4539.3	4507.8	3448.3
52.5°	3174.5	3239.6	3544.8	3869.7	4092.3	4271.5	4539.3	4588.5	5076.9	5076.9	3956.4
55°	2398.6	2455.8	2804.3	3371.5	3893.4	4279.4	4696.9	4870.2	5464.9	5472.8	4222.2
57.5°	1943.7	1979.2	2150.5	2731.5	3475.9	4180.9	4884.0	5112.4	5787.9	5823.4	4564.9
60°	1577.4	1597.1	1709.4	2113.1	2898.8	3915.0	5017.9	5459.0	6248.7	6297.9	5002.1
62.5°	1268.3	1287.9	1362.8	1605.0	2274.5	3416.8	4994.3	5819.4	6863.2	6943.9	5575.2
65°	1012.2	1033.9	1083.1	1232.8	1685.7	2798.4	4752.0	6004.5	7499.3	7578.0	5955.3
67.5°	789.7	809.4	842.9	941.3	1187.5	2093.4	4179.0	5809.5	7784.8	7851.8	5975.0
70°	596.7	606.5	634.1	697.1	848.7	1390.4	3271.1	5155.7	7528.8	7589.8	5581.1
72.5°	462.8	460.8	476.6	508.1	592.8	957.1	2168.2	4192.7	6656.3	6719.4	4761.8
75°	378.1	376.1	386.0	395.9	429.3	642.0	1280.0	3156.8	5372.3	5252.2	3572.3
77.5°	319.1	317.0	326.9	328.9	342.7	443.1	728.6	2077.6	3584.2	3377.4	2012.7
80°	269.8	267.8	279.7	283.6	293.4	324.9	419.5	1124.5	1800.0	1705.5	961.1
82.5°	202.9	210.7	232.4	242.2	254.0	240.3	259.9	496.2	835.0	797.6	417.5
85°	98.5	116.2	175.2	195.0	208.8	151.6	177.3	234.4	376.1	358.4	169.4
87.5°	33.5	29.6	104.3	124.1	135.8	68.9	98.5	130.0	155.6	141.8	53.2
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°	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4
2.5°	943.3	913.8	870.4	837.0	815.3	797.6	789.7	787.8	783.8	781.8	781.8
5°	963.0	909.8	842.9	807.4	797.6	789.7	793.6	795.7	795.7	795.7	795.7
7.5°	992.6	917.7	837.0	813.3	811.4	811.4	823.2	829.1	833.0	833.0	833.0
10°	1032.0	931.5	846.8	827.2	833.0	837.0	850.8	858.7	862.6	864.5	866.5
12.5°	1085.1	961.1	866.5	850.8	858.7	860.6	870.4	874.4	878.3	880.2	880.2
15°	1156.0	1004.3	898.0	878.3	880.2	878.3	878.3	874.4	872.4	872.4	876.4
17.5°	1228.9	1045.8	925.6	898.0	890.2	874.4	862.6	852.7	846.8	842.9	844.9
20°	1301.7	1083.1	941.3	901.9	880.2	854.7	833.0	819.3	811.4	803.5	807.4
22.5°	1374.6	1118.6	947.3	890.2	858.7	821.2	797.6	775.9	758.2	746.3	748.4
25°	1455.4	1158.0	947.3	876.4	829.1	789.7	760.2	724.8	699.1	689.3	693.3
27.5°	1536.1	1191.4	937.4	850.8	795.7	756.3	712.9	671.6	655.8	649.9	651.8
30°	1616.8	1217.0	915.7	819.3	760.2	716.9	659.7	632.2	612.4	596.7	598.6
32.5°	1697.6	1234.8	886.2	779.9	722.7	667.6	620.3	588.8	553.4	533.7	535.6
35°	1790.2	1248.5	850.8	740.5	681.4	624.3	588.8	537.7	500.2	484.5	480.5
37.5°	1886.6	1258.4	813.3	697.1	640.1	592.8	557.3	494.3	458.9	437.2	435.3
40°	1991.0	1262.3	768.0	651.8	600.7	573.1	516.0	468.7	407.6	393.8	393.8
42.5°	2115.1	1260.4	722.7	606.5	557.3	527.7	486.4	464.7	411.6	397.8	389.9
45°	2256.8	1260.4	673.5	553.4	514.0	470.7	453.0	439.2	403.8	409.6	413.6
47.5°	2418.4	1256.4	614.4	510.0	478.5	441.1	431.3	401.7	388.0	391.9	395.9
50°	2640.8	1262.3	561.3	474.6	453.0	421.5	409.6	393.8	388.0	389.9	388.0
52.5°	2950.1	1242.7	510.0	453.0	433.2	391.9	391.9	389.9	391.9	389.9	389.9
55°	3119.4	1199.3	472.6	441.1	419.5	378.1	386.0	389.9	393.8	391.9	391.9
57.5°	3359.7	1169.7	443.1	433.2	411.6	374.2	382.1	389.9	391.9	389.9	389.9
60°	3643.2	1150.1	423.4	435.3	405.7	374.2	384.0	389.9	388.0	386.0	386.0
62.5°	3972.1	1142.2	409.6	441.1	399.8	376.1	384.0	389.9	382.1	380.1	380.1
65°	4096.2	1071.3	391.9	445.1	403.8	376.1	382.1	384.0	374.2	372.3	370.2
67.5°	3905.2	949.2	366.3	437.2	415.5	376.1	376.1	374.2	362.3	360.4	356.5
70°	3477.8	787.8	326.9	411.6	423.4	378.1	368.3	358.4	346.6	346.6	338.7
72.5°	2847.7	620.3	275.7	366.3	417.5	384.0	352.5	338.7	324.9	324.9	317.0
75°	2052.0	462.8	220.5	305.2	391.9	382.1	332.9	315.1	299.3	297.4	287.6
77.5°	1169.7	324.9	179.2	238.2	348.6	372.3	315.1	287.6	269.8	263.9	258.0
80°	600.7	218.6	145.8	187.1	289.5	344.6	301.3	256.0	236.3	226.5	216.7
82.5°	285.5	145.8	112.2	137.9	218.6	301.3	283.6	220.5	198.9	187.1	175.2
85°	128.0	86.6	74.9	88.6	155.6	234.4	250.1	181.2	155.6	195.0	143.7
87.5°	41.3	39.4	39.4	41.3	74.9	102.4	183.1	133.9	124.1	102.4	86.6
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)