

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: P265941

Luminaire Tested: **ARCH-AF24-50-D-U-T2R-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265941  
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-AF24-50-D-U-T2R-7027  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 670mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5784.8 lumens  
Efficiency: N/A  
Efficacy: 107.1 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 - G1

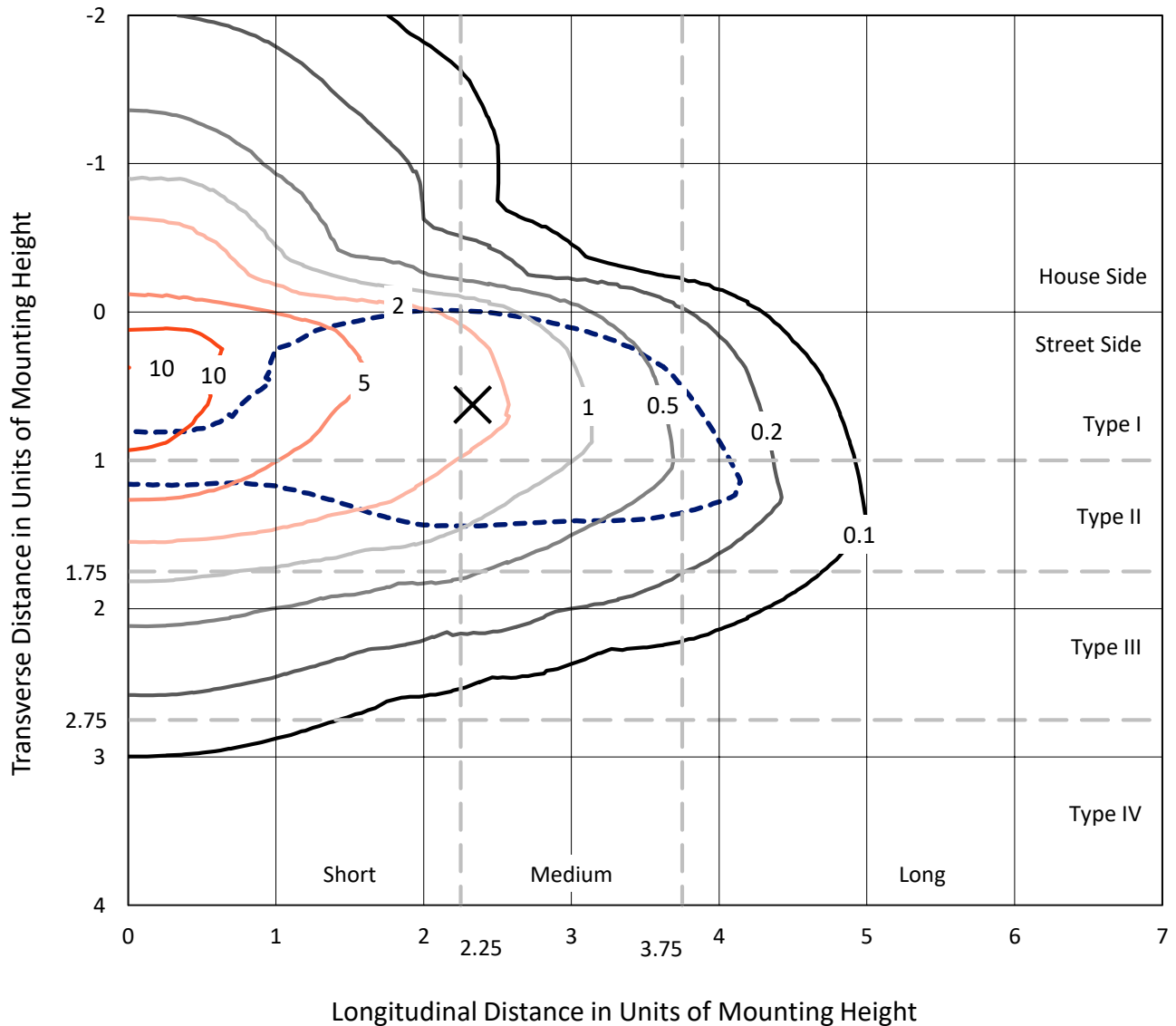
Input Watts (W): 54  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

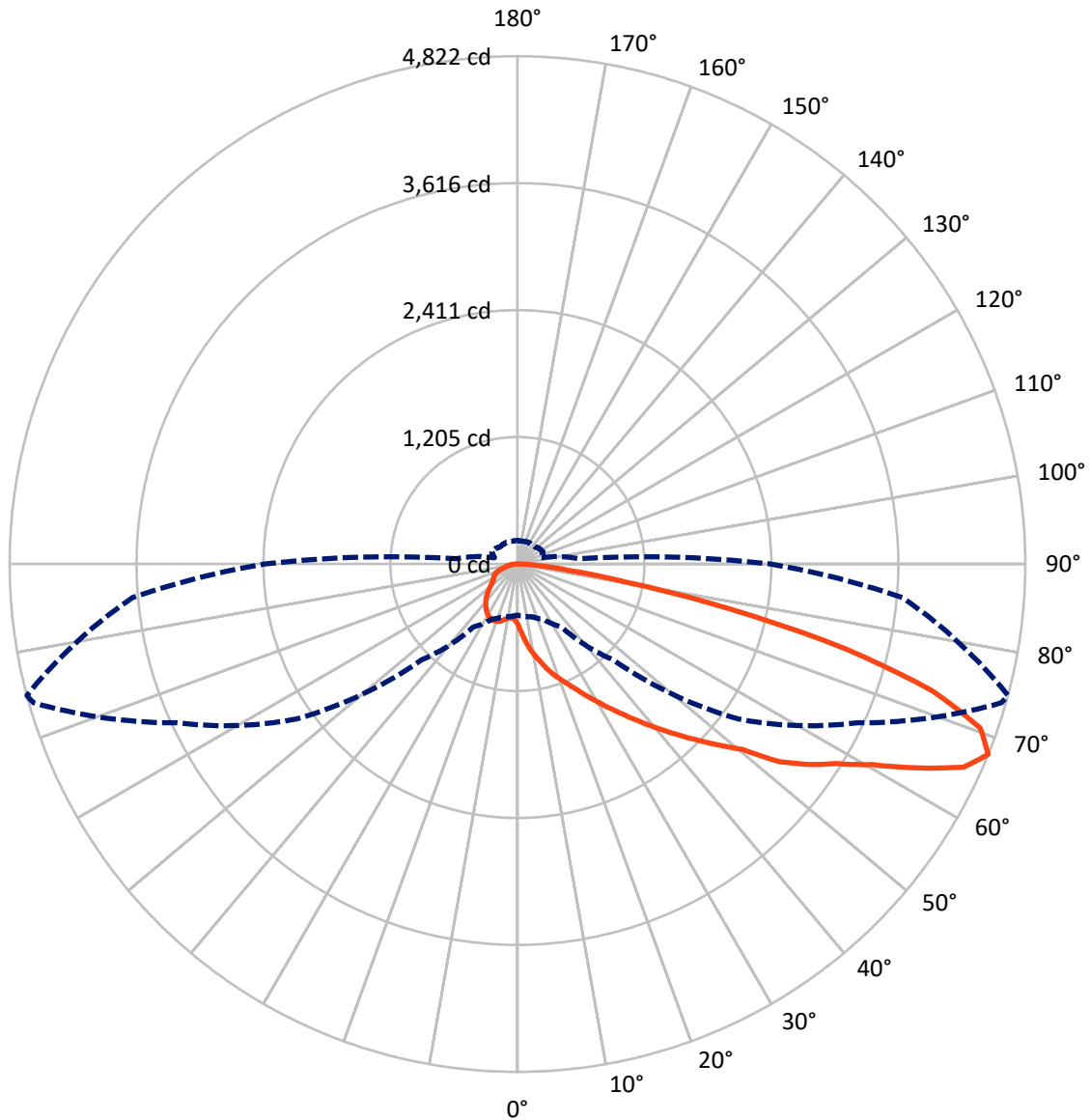
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12 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	987.8	0.0	987.8
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	4797.0	0.0	4797.0
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	5784.8	0.0	5784.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.3	1.2
10°-20°	243.4	4.2
20°-30°	443.9	7.7
30°-40°	728.6	12.6
40°-50°	1053.6	18.2
50°-60°	1241.7	21.5
60°-70°	1206.6	20.9
70°-80°	670.7	11.6
80°-90°	129.0	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°	5784.8	100.0
0°-180°	5784.8	100.0



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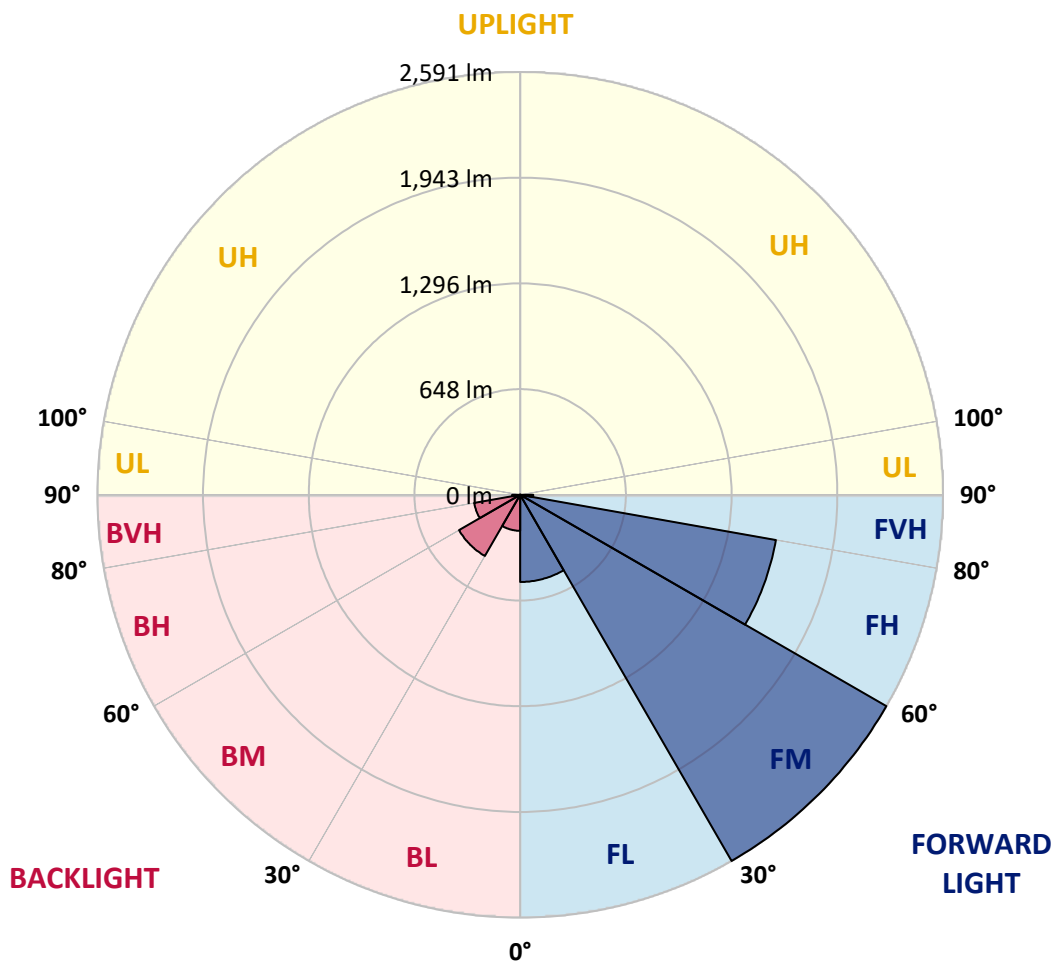
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	534.1	9.2			
FM (30°-60°)	2591.3	44.8			
FH (60°-80°)	1591.3	27.5			G1/1800
FVH (80°-90°)	80.3	1.4			G1/100
BL (0°-30°)	220.5	3.8	B1/500		
BM (30°-60°)	432.6	7.5	B1/1000		
BH (60°-80°)	286.0	4.9	B1/500		G1/500
BVH (80°-90°)	48.7	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-G1**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2
2.5°	812.6	815.1	810.2	799.3	783.6	754.7	729.2	684.5	644.5	639.8	597.5
5°	955.3	957.9	951.8	938.4	921.5	890.1	854.9	796.9	732.8	720.8	631.2
7.5°	1053.4	1054.5	1047.2	1033.9	1020.7	989.3	954.2	888.9	810.2	800.6	674.7
10°	1136.7	1139.2	1129.4	1121.1	1106.5	1075.1	1038.8	969.9	888.9	875.6	719.5
12.5°	1214.1	1216.6	1210.6	1203.3	1198.5	1169.5	1129.4	1047.2	960.2	945.6	772.7
15°	1266.3	1268.5	1269.8	1279.5	1285.6	1265.0	1225.1	1135.5	1037.6	1024.2	835.7
17.5°	1251.7	1257.6	1275.9	1310.8	1348.4	1349.7	1316.9	1222.7	1113.8	1099.3	899.7
20°	1209.3	1214.1	1236.0	1289.2	1362.9	1405.3	1402.9	1310.8	1185.1	1169.5	959.0
22.5°	1244.4	1250.4	1250.4	1283.0	1355.6	1434.2	1465.8	1398.0	1256.5	1241.9	1018.3
25°	1394.3	1398.0	1372.6	1359.2	1385.8	1458.5	1517.6	1492.4	1343.5	1326.6	1082.4
27.5°	1603.6	1597.5	1566.0	1512.8	1483.8	1503.3	1563.7	1581.7	1443.9	1423.4	1148.8
30°	1811.6	1808.0	1771.6	1700.3	1635.1	1594.0	1614.4	1661.7	1552.8	1528.6	1212.9
32.5°	2006.3	2000.3	1960.3	1876.9	1803.1	1726.9	1686.9	1734.2	1669.0	1641.1	1284.2
35°	2185.2	2169.5	2129.6	2042.6	1966.4	1893.7	1795.8	1803.1	1794.6	1765.6	1362.9
37.5°	2330.4	2318.3	2274.8	2193.8	2112.8	2043.7	1941.0	1881.7	1930.1	1902.3	1453.5
40°	2458.7	2445.2	2400.5	2319.6	2244.5	2179.2	2098.3	1977.3	2082.5	2051.0	1555.1
42.5°	2555.3	2545.6	2509.3	2429.6	2357.1	2297.8	2257.8	2098.3	2240.9	2210.6	1666.4
45°	2607.3	2597.7	2578.2	2514.1	2447.7	2401.7	2405.3	2242.1	2406.6	2381.1	1798.2
47.5°	2543.2	2550.5	2567.4	2555.3	2514.1	2492.4	2537.2	2390.8	2591.6	2567.4	1941.0
50°	2371.4	2378.7	2446.4	2529.9	2544.4	2570.9	2655.7	2562.5	2787.5	2768.1	2117.6
52.5°	1949.4	1989.3	2176.9	2376.3	2513.0	2623.1	2787.5	2817.8	3117.7	3117.7	2429.6
55°	1473.0	1508.1	1722.1	2070.4	2390.8	2627.9	2884.3	2990.6	3355.9	3360.6	2592.8
57.5°	1193.6	1215.3	1320.6	1677.3	2134.5	2567.4	2999.1	3139.4	3554.2	3576.1	2803.3
60°	968.6	980.8	1049.7	1297.6	1780.1	2404.1	3081.4	3352.2	3837.2	3867.5	3071.8
62.5°	778.8	790.9	836.9	985.6	1396.8	2098.3	3066.9	3573.5	4214.5	4264.1	3423.6
65°	621.5	634.9	665.1	757.0	1035.1	1718.5	2918.1	3687.3	4605.2	4653.5	3657.0
67.5°	484.9	497.0	517.7	578.1	729.2	1285.6	2566.2	3567.4	4780.5	4821.7	3669.0
70°	366.4	372.4	389.4	428.1	521.2	853.7	2008.7	3166.0	4623.2	4660.8	3427.3
72.5°	284.3	283.0	292.7	312.0	364.1	587.8	1331.5	2574.6	4087.6	4126.3	2924.2
75°	232.2	231.0	237.1	243.1	263.7	394.3	786.0	1938.5	3299.0	3225.3	2193.8
77.5°	195.9	194.8	200.7	201.9	210.5	272.0	447.4	1275.9	2200.9	2073.9	1236.0
80°	165.6	164.5	171.8	174.1	180.2	199.6	257.5	690.5	1105.4	1047.2	590.1
82.5°	124.5	129.4	142.7	148.8	155.9	147.5	159.5	304.7	512.8	489.8	256.3
85°	60.5	71.3	107.6	119.7	128.2	93.2	108.9	143.9	231.0	220.2	104.1
87.5°	20.5	18.1	64.0	76.1	83.5	42.3	60.5	79.8	95.5	87.0	32.7
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°	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2
2.5°	579.2	561.1	534.5	514.0	500.6	489.8	484.9	483.7	481.3	480.1	480.1
5°	591.4	558.7	517.7	495.9	489.8	484.9	487.4	488.6	488.6	488.6	488.6
7.5°	609.5	563.5	514.0	499.5	498.2	498.2	505.4	509.1	511.6	511.6	511.6
10°	633.7	572.0	519.9	507.9	511.6	514.0	522.5	527.2	529.7	530.9	532.1
12.5°	666.4	590.1	532.1	522.5	527.2	528.5	534.5	536.9	539.3	540.6	540.6
15°	709.9	616.7	551.5	539.3	540.6	539.3	539.3	536.9	535.7	535.7	538.2
17.5°	754.7	642.2	568.4	551.5	546.6	536.9	529.7	523.6	519.9	517.7	518.9
20°	799.3	665.1	578.1	553.9	540.6	524.9	511.6	503.1	498.2	493.3	495.9
22.5°	844.0	686.9	581.7	546.6	527.2	504.3	489.8	476.6	465.6	458.3	459.6
25°	893.8	711.1	581.7	538.2	509.1	484.9	466.8	445.0	429.3	423.3	425.6
27.5°	943.3	731.6	575.6	522.5	488.6	464.3	437.7	412.4	402.7	399.0	400.3
30°	992.8	747.4	562.2	503.1	466.8	440.2	405.1	388.2	376.1	366.4	367.6
32.5°	1042.5	758.3	544.3	478.8	443.9	409.9	380.9	361.6	339.7	327.7	328.9
35°	1099.3	766.8	522.5	454.7	418.4	383.3	361.6	330.1	307.2	297.5	295.1
37.5°	1158.5	772.7	499.5	428.1	393.0	364.1	342.3	303.5	281.8	268.5	267.2
40°	1222.7	775.1	471.6	400.3	368.8	352.0	316.8	287.8	250.4	241.9	241.9
42.5°	1298.8	774.0	443.9	372.4	342.3	324.1	298.6	285.4	252.8	244.2	239.5
45°	1385.8	774.0	413.6	339.7	315.7	289.1	278.1	269.8	247.9	251.5	254.0
47.5°	1485.1	771.6	377.3	313.1	293.8	270.8	264.8	246.8	238.2	240.7	243.1
50°	1621.7	775.1	344.7	291.4	278.1	258.8	251.5	241.9	238.2	239.5	238.2
52.5°	1811.6	763.1	313.1	278.1	266.1	240.7	240.7	239.5	240.7	239.5	239.5
55°	1915.5	736.5	290.2	270.8	257.5	232.2	237.1	239.5	241.9	240.7	240.7
57.5°	2063.0	718.4	272.0	266.1	252.8	229.7	234.5	239.5	240.7	239.5	239.5
60°	2237.3	706.2	260.0	267.2	249.1	229.7	235.9	239.5	238.2	237.1	237.1
62.5°	2439.2	701.3	251.5	270.8	245.4	231.0	235.9	239.5	234.5	233.4	233.4
65°	2515.4	657.9	240.7	273.4	247.9	231.0	234.5	235.9	229.7	228.6	227.4
67.5°	2398.0	582.9	224.9	268.5	255.2	231.0	231.0	229.7	222.5	221.3	218.8
70°	2135.7	483.7	200.7	252.8	260.0	232.2	226.2	220.2	212.9	212.9	208.0
72.5°	1748.7	380.9	169.3	224.9	256.3	235.9	216.5	208.0	199.6	199.6	194.8
75°	1260.1	284.3	135.5	187.4	240.7	234.5	204.4	193.4	183.9	182.6	176.5
77.5°	718.4	199.6	110.0	146.3	214.1	228.6	193.4	176.5	165.6	162.1	158.5
80°	368.8	134.2	89.6	115.0	177.8	211.6	185.1	157.3	145.2	139.1	132.9
82.5°	175.3	89.6	68.9	84.7	134.2	185.1	174.1	135.5	122.1	115.0	107.6
85°	78.6	53.2	46.0	54.3	95.5	143.9	153.6	111.3	95.5	119.7	88.3
87.5°	25.4	24.2	24.2	25.4	46.0	62.9	112.5	82.3	76.1	62.9	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

(END OF REPORT)