

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: P214585

Luminaire Tested: **ARCH-AF16-50-D-U-T2R**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214585  
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-AF16-50-D-U-T2R  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 980mA LIGHT ENGINE WITH 16 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6147.9 lumens  
Efficiency: N/A  
Efficacy: 116.0 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 - G1

Input Watts (W): 53  
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

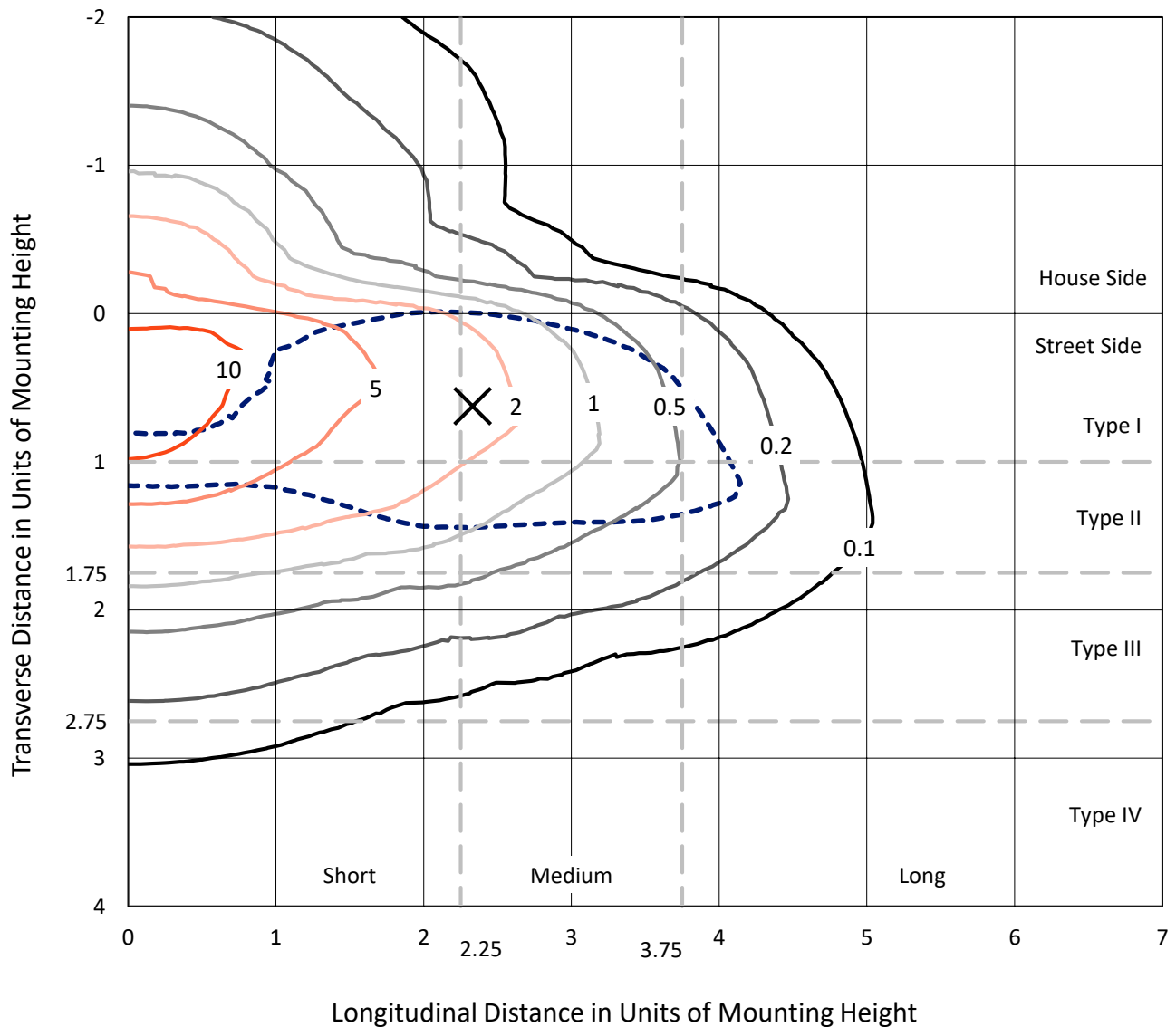


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

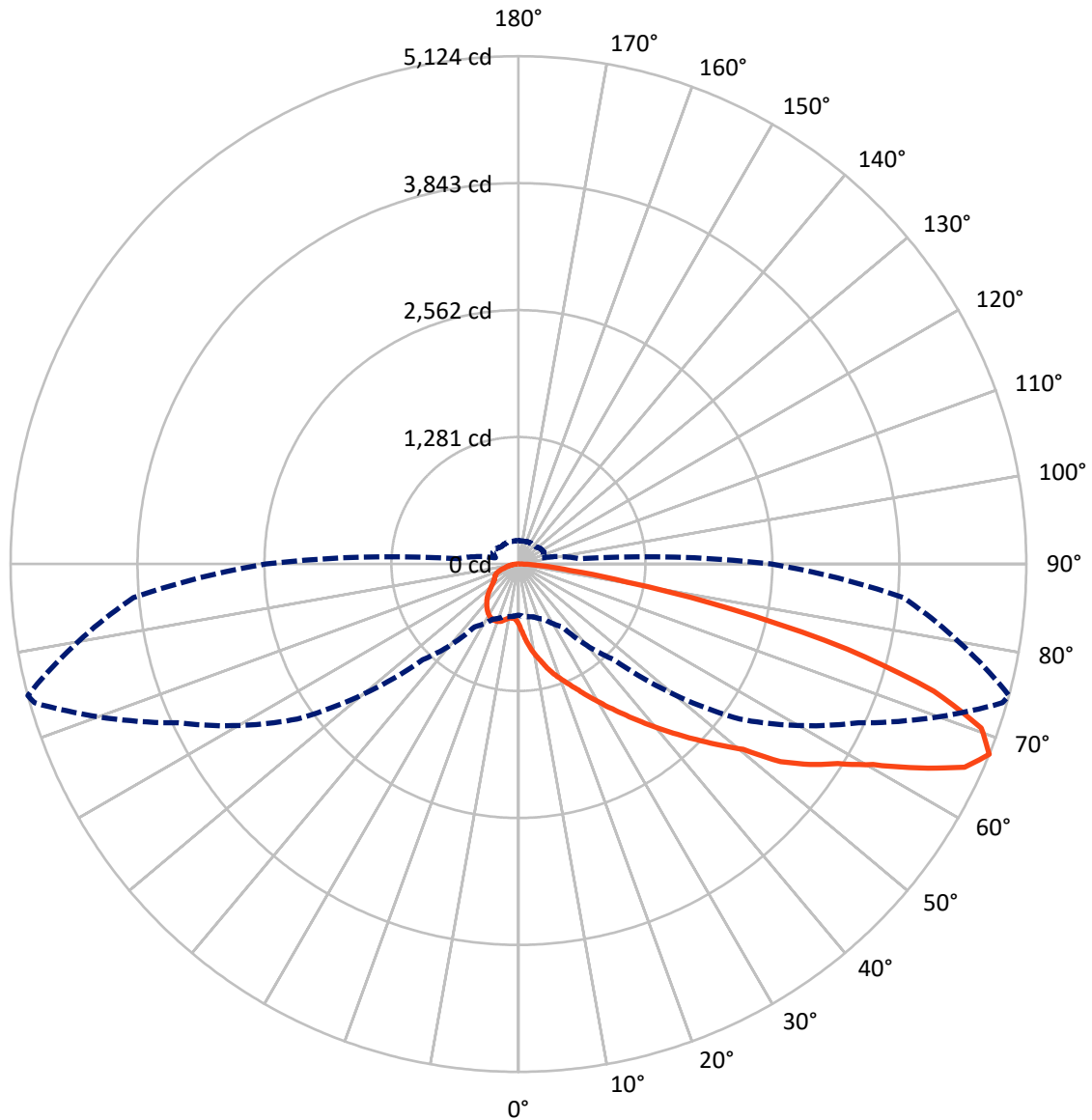


Based on 10 foot mounting height. Maximum calculated value = 12.8 fc  
 Type II - Medium - Semi-Cutoff

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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	1049.8	0.0	1049.8
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	5098.1	0.0	5098.1
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	6147.9	0.0	6147.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.6	1.2
10°-20°	258.6	4.2
20°-30°	471.7	7.7
30°-40°	774.3	12.6
40°-50°	1119.8	18.2
50°-60°	1319.6	21.5
60°-70°	1282.4	20.9
70°-80°	712.8	11.6
80°-90°	137.1	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°	6147.9	100.0
0°-180°	6147.9	100.0

**Coefficient of Utilization**



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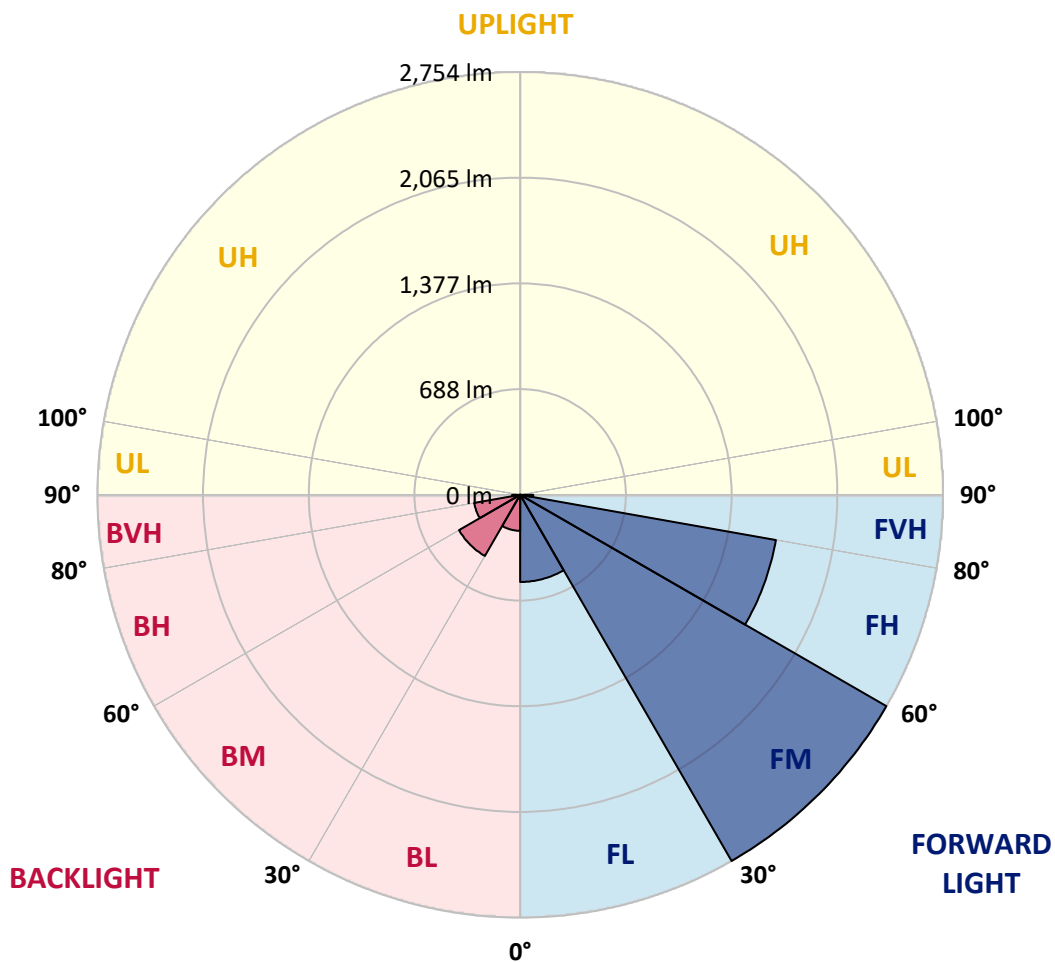
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	567.6	9.2			
FM (30°-60°)	2753.9	44.8			
FH (60°-80°)	1691.2	27.5			G1/1800
FVH (80°-90°)	85.3	1.4			G1/100
BL (0°-30°)	234.3	3.8	B1/500		
BM (30°-60°)	459.8	7.5	B1/1000		
BH (60°-80°)	304.0	4.9	B1/500		G1/500
BVH (80°-90°)	51.8	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°	609.2	609.2	609.2	609.2	609.2	609.2	609.2	609.2	609.2	609.2	609.2
2.5°	863.7	866.2	861.1	849.6	832.8	802.0	775.0	727.4	685.1	679.9	634.9
5°	1015.4	1017.9	1011.5	997.4	979.4	945.9	908.7	847.0	778.9	766.0	670.9
7.5°	1119.4	1120.7	1113.0	1098.9	1084.7	1051.3	1014.1	944.7	861.1	850.8	717.2
10°	1208.1	1210.7	1200.4	1191.4	1176.0	1142.5	1104.0	1030.7	944.7	930.5	764.8
12.5°	1290.4	1292.9	1286.6	1278.8	1273.7	1242.8	1200.4	1113.0	1020.5	1005.0	821.2
15°	1345.6	1348.2	1349.5	1359.8	1366.2	1344.4	1301.9	1206.9	1102.7	1088.6	888.1
17.5°	1330.2	1336.7	1355.9	1393.2	1433.1	1434.3	1399.6	1299.4	1183.7	1168.3	956.3
20°	1285.2	1290.4	1313.5	1370.0	1448.5	1493.4	1490.8	1393.2	1259.6	1242.8	1019.2
22.5°	1322.5	1328.9	1328.9	1363.6	1440.7	1524.3	1557.7	1485.7	1335.4	1319.9	1082.2
25°	1481.8	1485.7	1458.7	1444.6	1472.8	1550.0	1613.0	1586.0	1427.9	1409.9	1150.3
27.5°	1704.2	1697.8	1664.3	1607.9	1577.0	1597.5	1661.8	1681.1	1534.5	1512.7	1221.0
30°	1925.3	1921.4	1882.8	1807.0	1737.6	1693.9	1715.8	1765.9	1650.2	1624.5	1289.1
32.5°	2132.2	2125.8	2083.3	1994.7	1916.3	1835.3	1792.9	1843.1	1773.6	1744.0	1364.9
35°	2322.4	2305.7	2263.3	2170.8	2089.8	2012.7	1908.5	1916.3	1907.3	1876.4	1448.5
37.5°	2476.7	2463.8	2417.5	2331.4	2245.3	2172.0	2062.8	1999.9	2051.2	2021.7	1544.9
40°	2612.9	2598.7	2551.1	2465.1	2385.4	2316.0	2229.8	2101.3	2213.2	2179.7	1652.8
42.5°	2715.7	2705.4	2666.8	2582.0	2504.9	2442.0	2399.5	2229.8	2381.5	2349.4	1771.0
45°	2771.0	2760.6	2740.1	2671.9	2601.3	2552.5	2556.4	2382.9	2557.6	2530.6	1911.2
47.5°	2702.8	2710.5	2728.5	2715.7	2671.9	2648.8	2696.4	2540.9	2754.3	2728.5	2062.8
50°	2520.3	2528.0	2600.0	2688.7	2704.2	2732.4	2822.3	2723.4	2962.5	2941.9	2250.5
52.5°	2071.8	2114.2	2313.4	2525.5	2670.7	2787.6	2962.5	2994.6	3313.3	3313.3	2582.0
55°	1565.4	1602.7	1830.2	2200.4	2540.9	2792.9	3065.3	3178.4	3566.5	3571.6	2755.5
57.5°	1268.6	1291.7	1403.5	1782.6	2268.4	2728.5	3187.4	3336.5	3777.3	3800.5	2979.1
60°	1029.5	1042.3	1115.6	1379.0	1891.8	2555.0	3274.8	3562.6	4078.0	4110.2	3264.4
62.5°	827.7	840.6	889.4	1047.5	1484.4	2229.8	3259.3	3797.9	4479.0	4531.8	3638.5
65°	660.6	674.7	706.9	804.6	1100.2	1826.3	3101.3	3918.7	4894.2	4945.6	3886.5
67.5°	515.4	528.3	550.0	614.4	775.0	1366.2	2727.3	3791.5	5080.5	5124.3	3899.4
70°	389.4	395.9	413.9	455.0	553.9	907.4	2134.8	3364.7	4913.4	4953.3	3642.3
72.5°	302.1	300.7	311.0	331.6	386.9	624.6	1415.0	2736.3	4344.1	4385.2	3107.7
75°	246.7	245.5	252.0	258.3	280.2	419.0	835.4	2060.2	3506.2	3427.7	2331.4
77.5°	208.2	206.9	213.4	214.6	223.6	289.2	475.6	1355.9	2339.1	2204.2	1313.5
80°	176.0	174.8	182.5	185.1	191.5	212.1	273.7	733.9	1174.7	1113.0	627.2
82.5°	132.4	137.5	151.7	158.0	165.8	156.8	169.6	323.9	544.9	520.5	272.5
85°	64.2	75.8	114.4	127.3	136.3	98.9	115.7	152.9	245.5	233.9	110.6
87.5°	21.9	19.2	68.1	81.0	88.7	45.0	64.2	84.8	101.6	92.6	34.7
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°	609.2	609.2	609.2	609.2	609.2	609.2	609.2	609.2	609.2	609.2	609.2
2.5°	615.6	596.4	568.0	546.3	532.0	520.5	515.4	514.1	511.5	510.2	510.2
5°	628.5	593.8	550.0	526.9	520.5	515.4	517.9	519.2	519.2	519.2	519.2
7.5°	647.7	598.9	546.3	530.8	529.5	529.5	537.3	541.0	543.7	543.7	543.7
10°	673.5	607.9	552.7	539.8	543.7	546.3	555.3	560.4	562.9	564.3	565.5
12.5°	708.2	627.2	565.5	555.3	560.4	561.6	568.0	570.6	573.3	574.5	574.5
15°	754.4	655.5	586.0	573.3	574.5	573.3	573.3	570.6	569.4	569.4	571.9
17.5°	802.0	682.4	604.1	586.0	580.9	570.6	562.9	556.5	552.7	550.0	551.4
20°	849.6	706.9	614.4	588.6	574.5	557.8	543.7	534.7	529.5	524.4	526.9
22.5°	897.1	730.0	618.2	580.9	560.4	535.9	520.5	506.4	494.8	487.1	488.4
25°	949.8	755.8	618.2	571.9	541.0	515.4	496.1	473.0	456.2	449.8	452.5
27.5°	1002.5	777.5	611.7	555.3	519.2	493.6	465.2	438.2	428.0	424.1	425.4
30°	1055.2	794.3	597.6	534.7	496.1	467.8	430.6	412.6	399.7	389.4	390.7
32.5°	1107.9	805.9	578.4	508.9	471.7	435.7	404.9	384.3	361.1	348.3	349.5
35°	1168.3	814.9	555.3	483.2	444.7	407.4	384.3	350.9	326.4	316.2	313.6
37.5°	1231.2	821.2	530.8	455.0	417.7	386.9	363.8	322.6	299.4	285.3	284.1
40°	1299.4	823.9	501.2	425.4	392.0	374.0	336.8	305.9	266.1	257.1	257.1
42.5°	1380.4	822.6	471.7	395.9	363.8	344.4	317.4	303.3	268.6	259.6	254.5
45°	1472.8	822.6	439.6	361.1	335.4	307.2	295.6	286.6	263.5	267.3	269.9
47.5°	1578.3	820.0	401.0	332.9	312.3	287.9	281.5	262.2	253.2	255.7	258.3
50°	1723.5	823.9	366.3	309.7	295.6	275.1	267.3	257.1	253.2	254.5	253.2
52.5°	1925.3	811.0	332.9	295.6	282.7	255.7	255.7	254.5	255.7	254.5	254.5
55°	2035.8	782.7	308.4	287.9	273.7	246.7	252.0	254.5	257.1	255.7	255.7
57.5°	2192.6	763.4	289.2	282.7	268.6	244.2	249.3	254.5	255.7	254.5	254.5
60°	2377.6	750.5	276.3	284.1	264.7	244.2	250.6	254.5	253.2	252.0	252.0
62.5°	2592.4	745.4	267.3	287.9	260.9	245.5	250.6	254.5	249.3	248.1	248.1
65°	2673.3	699.2	255.7	290.4	263.5	245.5	249.3	250.6	244.2	243.0	241.6
67.5°	2548.6	619.5	239.1	285.3	271.2	245.5	245.5	244.2	236.5	235.2	232.6
70°	2269.7	514.1	213.4	268.6	276.3	246.7	240.3	233.9	226.2	226.2	221.1
72.5°	1858.4	404.9	179.9	239.1	272.5	250.6	230.1	221.1	212.1	212.1	206.9
75°	1339.2	302.1	143.9	199.2	255.7	249.3	217.2	205.6	195.4	194.1	187.6
77.5°	763.4	212.1	116.9	155.5	227.5	243.0	205.6	187.6	176.0	172.3	168.4
80°	392.0	142.7	95.1	122.1	188.9	224.9	196.6	167.0	154.3	147.8	141.4
82.5°	186.4	95.1	73.2	89.9	142.7	196.6	185.1	143.9	129.8	122.1	114.4
85°	83.6	56.6	48.8	57.8	101.6	152.9	163.3	118.3	101.6	127.3	93.8
87.5°	27.0	25.7	25.7	27.0	48.8	66.8	119.5	87.4	81.0	66.8	56.6
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)