

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: P234694

Luminaire Tested: **ARCH-AF24-90-D-U-T2R-8027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234694  
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-8027  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 2700K, 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: 7669 lumens  
Efficiency: N/A  
Efficacy: 81.6 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

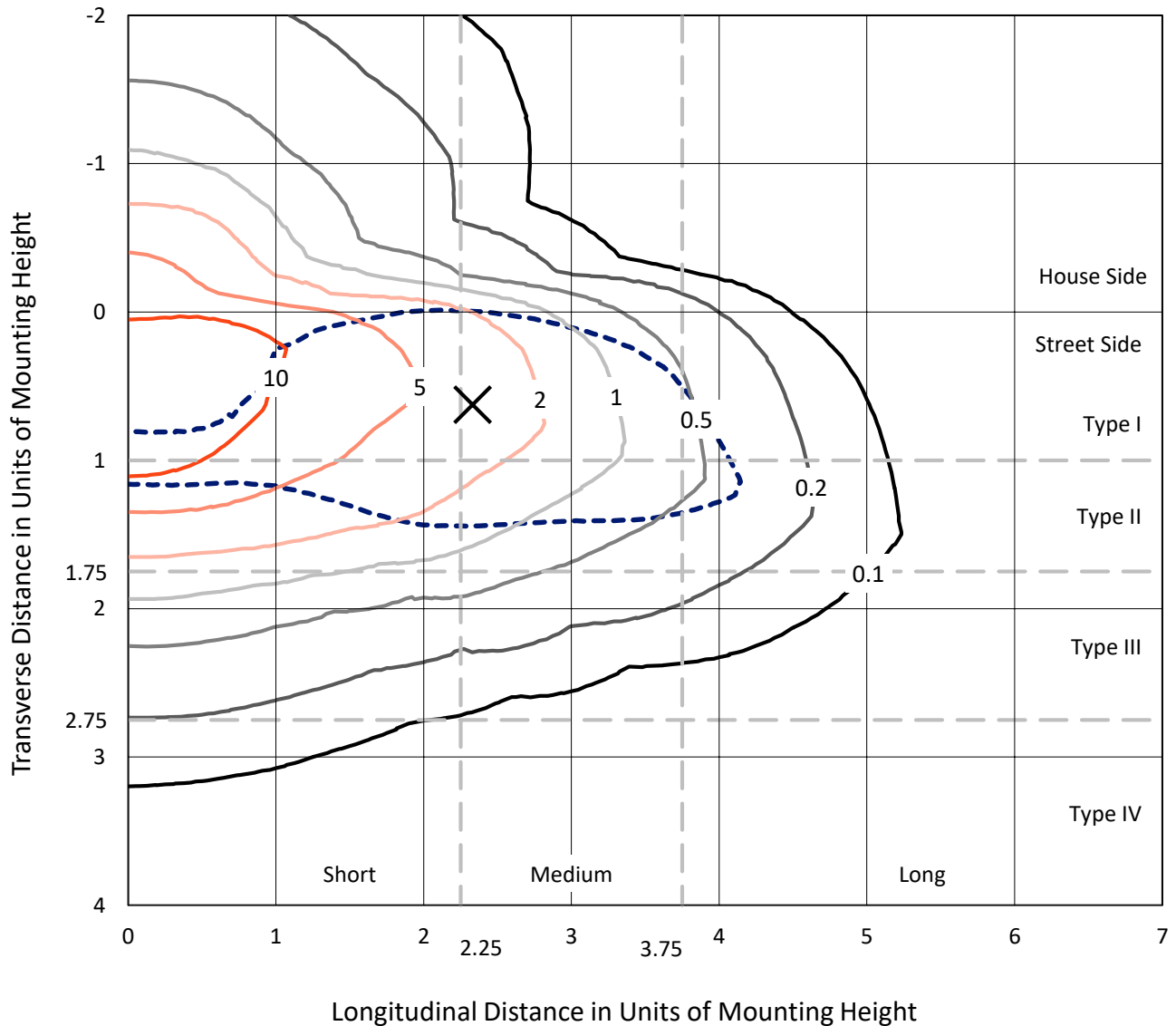
Input Watts (W): 94  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

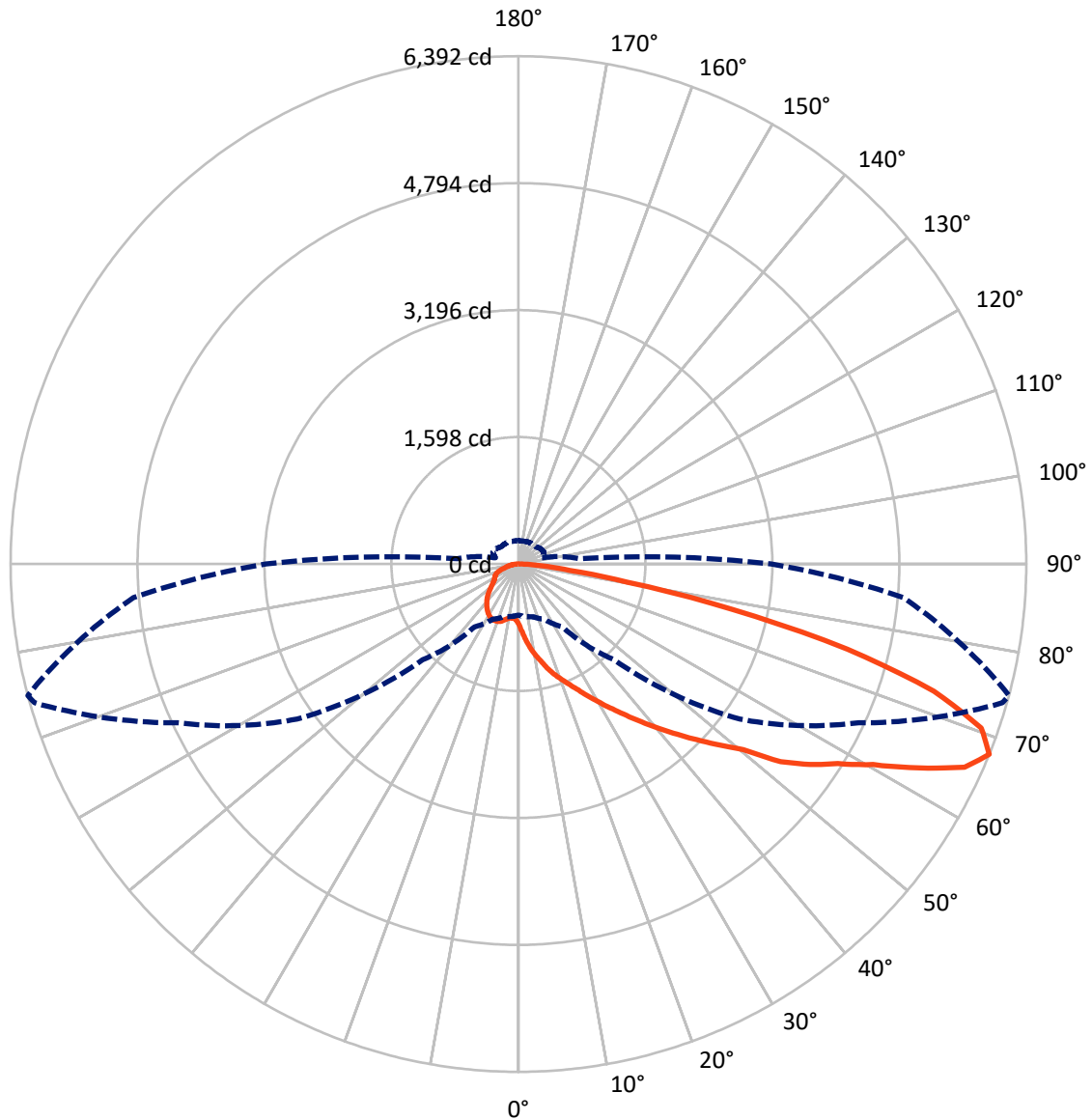


Based on 10 foot mounting height. Maximum calculated value = 15.9 fc  
 Type II - Medium - Semi-Cutoff

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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	1309.6	0.0	1309.6
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	6359.4	0.0	6359.4
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	7669.0	0.0	7669.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.3	1.2
10°-20°	322.6	4.2
20°-30°	588.4	7.7
30°-40°	965.9	12.6
40°-50°	1396.8	18.2
50°-60°	1646.1	21.5
60°-70°	1599.6	20.9
70°-80°	889.2	11.6
80°-90°	171.0	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°	7669.0	100.0
0°-180°	7669.0	100.0

**Coefficient of Utilization**



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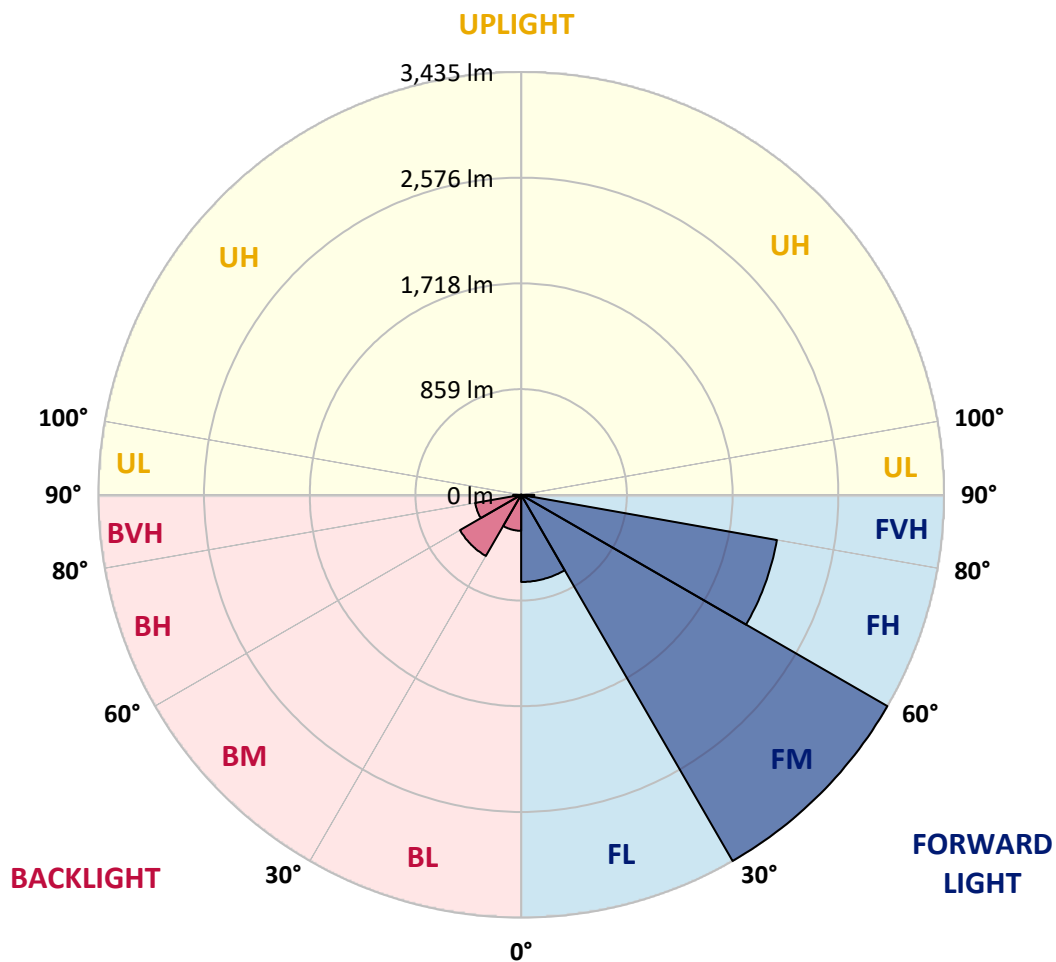
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	708.1	9.2			
FM	(30°-60°)	3435.3	44.8			
FH	(60°-80°)	2109.6	27.5			G2/5000
FVH	(80°-90°)	106.4	1.4			G2/225
BL	(0°-30°)	292.3	3.8	B1/500		
BM	(30°-60°)	573.5	7.5	B1/1000		
BH	(60°-80°)	379.2	4.9	B1/500		G1/500
BVH	(80°-90°)	64.6	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°	759.9	759.9	759.9	759.9	759.9	759.9	759.9	759.9	759.9	759.9	759.9
2.5°	1077.4	1080.6	1074.2	1059.7	1038.9	1000.4	966.7	907.4	854.5	848.1	792.0
5°	1266.5	1269.7	1261.7	1244.1	1221.6	1180.0	1133.5	1056.5	971.5	955.5	836.9
7.5°	1396.4	1398.0	1388.4	1370.7	1353.1	1311.4	1264.9	1178.4	1074.2	1061.3	894.6
10°	1507.0	1510.2	1497.4	1486.2	1466.9	1425.3	1377.2	1285.8	1178.4	1160.7	953.9
12.5°	1609.6	1612.8	1604.8	1595.2	1588.8	1550.3	1497.4	1388.4	1273.0	1253.7	1024.5
15°	1678.6	1681.8	1683.4	1696.2	1704.2	1677.0	1624.1	1505.4	1375.6	1357.9	1107.8
17.5°	1659.3	1667.3	1691.4	1737.9	1787.6	1789.2	1745.9	1620.8	1476.6	1457.3	1192.8
20°	1603.2	1609.6	1638.5	1709.0	1806.8	1862.9	1859.7	1737.9	1571.1	1550.3	1271.3
22.5°	1649.7	1657.7	1657.7	1701.0	1797.2	1901.4	1943.1	1853.3	1665.7	1646.5	1349.9
25°	1848.5	1853.3	1819.6	1802.0	1837.3	1933.5	2012.0	1978.4	1781.2	1758.7	1434.9
27.5°	2125.9	2117.8	2076.2	2005.6	1967.1	1992.8	2073.0	2097.0	1914.2	1887.0	1523.1
30°	2401.6	2396.8	2348.7	2254.1	2167.5	2113.0	2140.3	2202.8	2058.5	2026.5	1608.0
32.5°	2659.7	2651.7	2598.8	2488.2	2390.4	2289.4	2236.5	2299.0	2212.4	2175.6	1702.6
35°	2897.0	2876.2	2823.3	2707.8	2606.8	2510.6	2380.8	2390.4	2379.2	2340.7	1806.8
37.5°	3089.4	3073.4	3015.6	2908.2	2800.8	2709.4	2573.2	2494.6	2558.7	2521.9	1927.1
40°	3259.3	3241.7	3182.4	3075.0	2975.6	2889.0	2781.6	2621.3	2760.7	2719.0	2061.7
42.5°	3387.6	3374.8	3326.7	3220.9	3124.7	3046.1	2993.2	2781.6	2970.8	2930.7	2209.2
45°	3456.5	3443.7	3418.0	3333.1	3244.9	3184.0	3188.8	2972.4	3190.4	3156.7	2384.0
47.5°	3371.6	3381.2	3403.6	3387.6	3333.1	3304.2	3363.5	3169.6	3435.7	3403.6	2573.2
50°	3143.9	3153.5	3243.3	3353.9	3373.2	3408.4	3520.7	3397.2	3695.4	3669.8	2807.2
52.5°	2584.4	2637.3	2885.8	3150.3	3331.5	3477.4	3695.4	3735.5	4133.1	4133.1	3220.9
55°	1952.7	1999.2	2283.0	2744.7	3169.6	3483.8	3823.7	3964.7	4448.9	4455.3	3437.3
57.5°	1582.4	1611.2	1750.7	2223.7	2829.7	3403.6	3976.0	4161.9	4711.8	4740.7	3716.2
60°	1284.2	1300.2	1391.6	1720.2	2359.9	3187.2	4085.0	4444.1	5087.0	5127.1	4072.2
62.5°	1032.5	1048.5	1109.4	1306.6	1851.7	2781.6	4065.7	4737.5	5587.2	5652.9	4538.7
65°	824.1	841.7	881.8	1003.6	1372.3	2278.2	3868.6	4888.2	6105.0	6169.2	4848.1
67.5°	642.9	658.9	686.2	766.3	966.7	1704.2	3402.0	4729.5	6337.5	6392.0	4864.1
70°	485.8	493.8	516.2	567.5	691.0	1131.9	2662.9	4197.2	6129.1	6178.8	4543.5
72.5°	376.8	375.2	388.0	413.6	482.6	779.2	1765.1	3413.2	5418.9	5470.2	3876.6
75°	307.8	306.2	314.2	322.2	349.5	522.6	1042.1	2569.9	4373.6	4275.8	2908.2
77.5°	259.7	258.1	266.1	267.7	279.0	360.7	593.2	1691.4	2917.8	2749.5	1638.5
80°	219.6	218.0	227.7	230.9	238.9	264.5	341.5	915.4	1465.3	1388.4	782.4
82.5°	165.1	171.5	189.2	197.2	206.8	195.6	211.6	404.0	679.8	649.3	339.9
85°	80.2	94.6	142.7	158.7	169.9	123.4	144.3	190.8	306.2	291.8	137.9
87.5°	27.3	24.0	85.0	101.0	110.6	56.1	80.2	105.8	126.7	115.4	43.3
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°	759.9	759.9	759.9	759.9	759.9	759.9	759.9	759.9	759.9	759.9	759.9
2.5°	767.9	743.9	708.6	681.4	663.7	649.3	642.9	641.3	638.1	636.5	636.5
5°	784.0	740.7	686.2	657.3	649.3	642.9	646.1	647.7	647.7	647.7	647.7
7.5°	808.0	747.1	681.4	662.1	660.5	660.5	670.1	675.0	678.2	678.2	678.2
10°	840.1	758.3	689.4	673.3	678.2	681.4	692.6	699.0	702.2	703.8	705.4
12.5°	883.4	782.4	705.4	692.6	699.0	700.6	708.6	711.8	715.0	716.6	716.6
15°	941.1	817.6	731.1	715.0	716.6	715.0	715.0	711.8	710.2	710.2	713.4
17.5°	1000.4	851.3	753.5	731.1	724.7	711.8	702.2	694.2	689.4	686.2	687.8
20°	1059.7	881.8	766.3	734.3	716.6	695.8	678.2	666.9	660.5	654.1	657.3
22.5°	1119.0	910.6	771.1	724.7	699.0	668.5	649.3	631.7	617.2	607.6	609.2
25°	1184.8	942.7	771.1	713.4	675.0	642.9	618.8	590.0	569.1	561.1	564.3
27.5°	1250.5	969.9	763.1	692.6	647.7	615.6	580.4	546.7	533.9	529.1	530.7
30°	1316.2	990.8	745.5	666.9	618.8	583.6	537.1	514.6	498.6	485.8	487.4
32.5°	1382.0	1005.2	721.4	634.9	588.4	543.5	505.0	479.4	450.5	434.5	436.1
35°	1457.3	1016.4	692.6	602.8	554.7	508.2	479.4	437.7	407.2	394.4	391.2
37.5°	1535.9	1024.5	662.1	567.5	521.0	482.6	453.7	402.4	373.5	355.9	354.3
40°	1620.8	1027.7	625.3	530.7	489.0	466.5	420.0	381.6	331.9	320.6	320.6
42.5°	1721.9	1026.1	588.4	493.8	453.7	429.7	396.0	378.4	335.1	323.8	317.4
45°	1837.3	1026.1	548.3	450.5	418.4	383.2	368.7	357.5	328.7	333.5	336.7
47.5°	1968.7	1022.8	500.2	415.2	389.6	359.1	351.1	327.1	315.8	319.0	322.2
50°	2149.9	1027.7	456.9	386.4	368.7	343.1	333.5	320.6	315.8	317.4	315.8
52.5°	2401.6	1011.6	415.2	368.7	352.7	319.0	319.0	317.4	319.0	317.4	317.4
55°	2539.5	976.4	384.8	359.1	341.5	307.8	314.2	317.4	320.6	319.0	319.0
57.5°	2735.1	952.3	360.7	352.7	335.1	304.6	311.0	317.4	319.0	317.4	317.4
60°	2965.9	936.3	344.7	354.3	330.3	304.6	312.6	317.4	315.8	314.2	314.2
62.5°	3233.7	929.9	333.5	359.1	325.5	306.2	312.6	317.4	311.0	309.4	309.4
65°	3334.7	872.1	319.0	362.3	328.7	306.2	311.0	312.6	304.6	303.0	301.4
67.5°	3179.2	772.7	298.2	355.9	338.3	306.2	306.2	304.6	295.0	293.4	290.2
70°	2831.3	641.3	266.1	335.1	344.7	307.8	299.8	291.8	282.2	282.2	275.8
72.5°	2318.2	505.0	224.4	298.2	339.9	312.6	287.0	275.8	264.5	264.5	258.1
75°	1670.5	376.8	179.6	248.5	319.0	311.0	270.9	256.5	243.7	242.1	234.1
77.5°	952.3	264.5	145.9	194.0	283.8	303.0	256.5	234.1	219.6	214.8	210.0
80°	489.0	178.0	118.6	152.3	235.7	280.6	245.3	208.4	192.4	184.4	176.4
82.5°	232.5	118.6	91.4	112.2	178.0	245.3	230.9	179.6	161.9	152.3	142.7
85°	104.2	70.5	60.9	72.1	126.7	190.8	203.6	147.5	126.7	158.7	117.0
87.5°	33.7	32.1	32.1	33.7	60.9	83.4	149.1	109.0	101.0	83.4	70.5
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)