

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: P234718

Luminaire Tested: **ARCH-AF24-50-D-U-T3-8027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234718  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)  
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-T3-8027  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 2700K, 670mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5145 lumens  
Efficiency: N/A  
Efficacy: 95.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B1 - U0 - G2

Input Watts (W): 54  
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

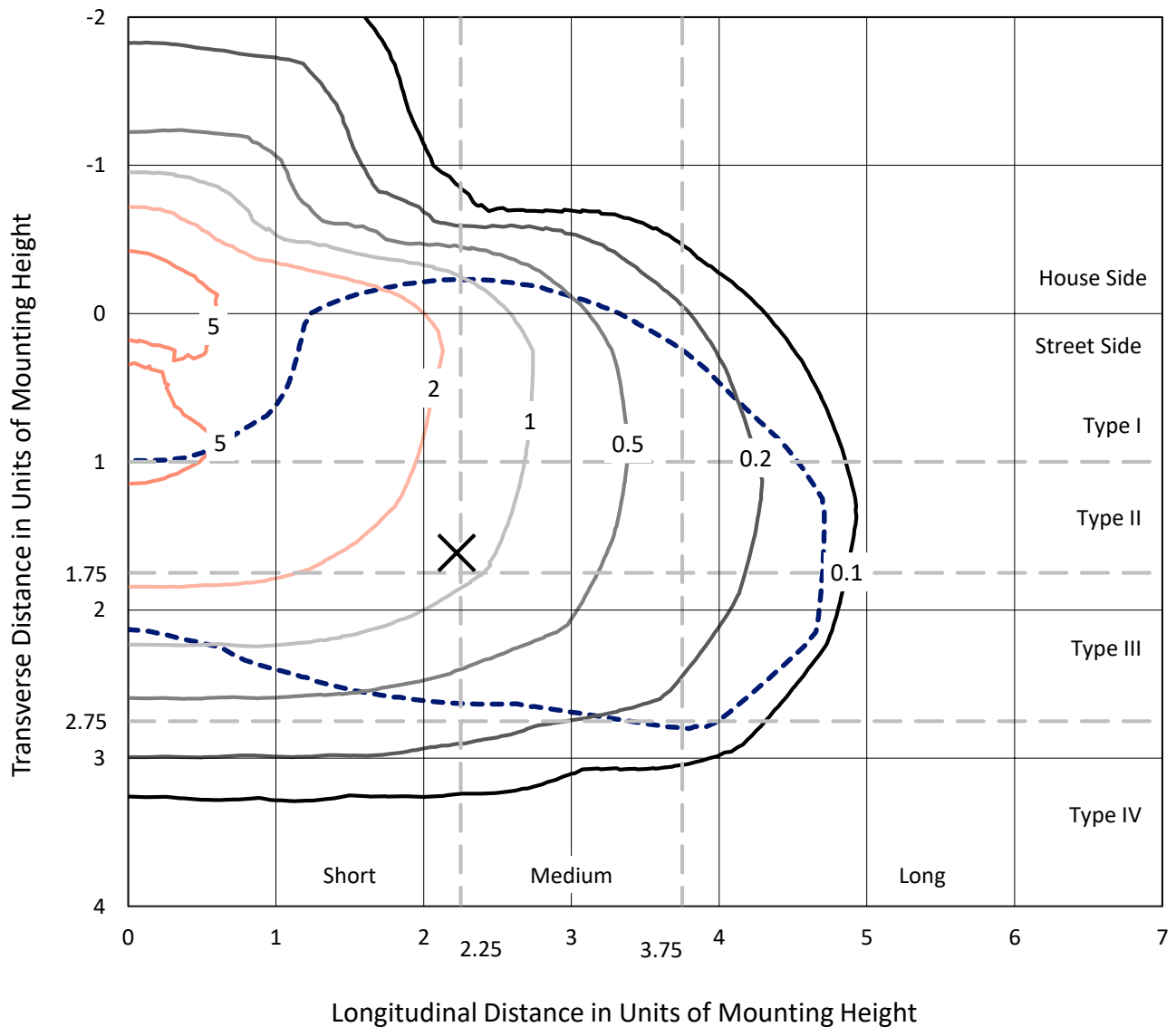


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

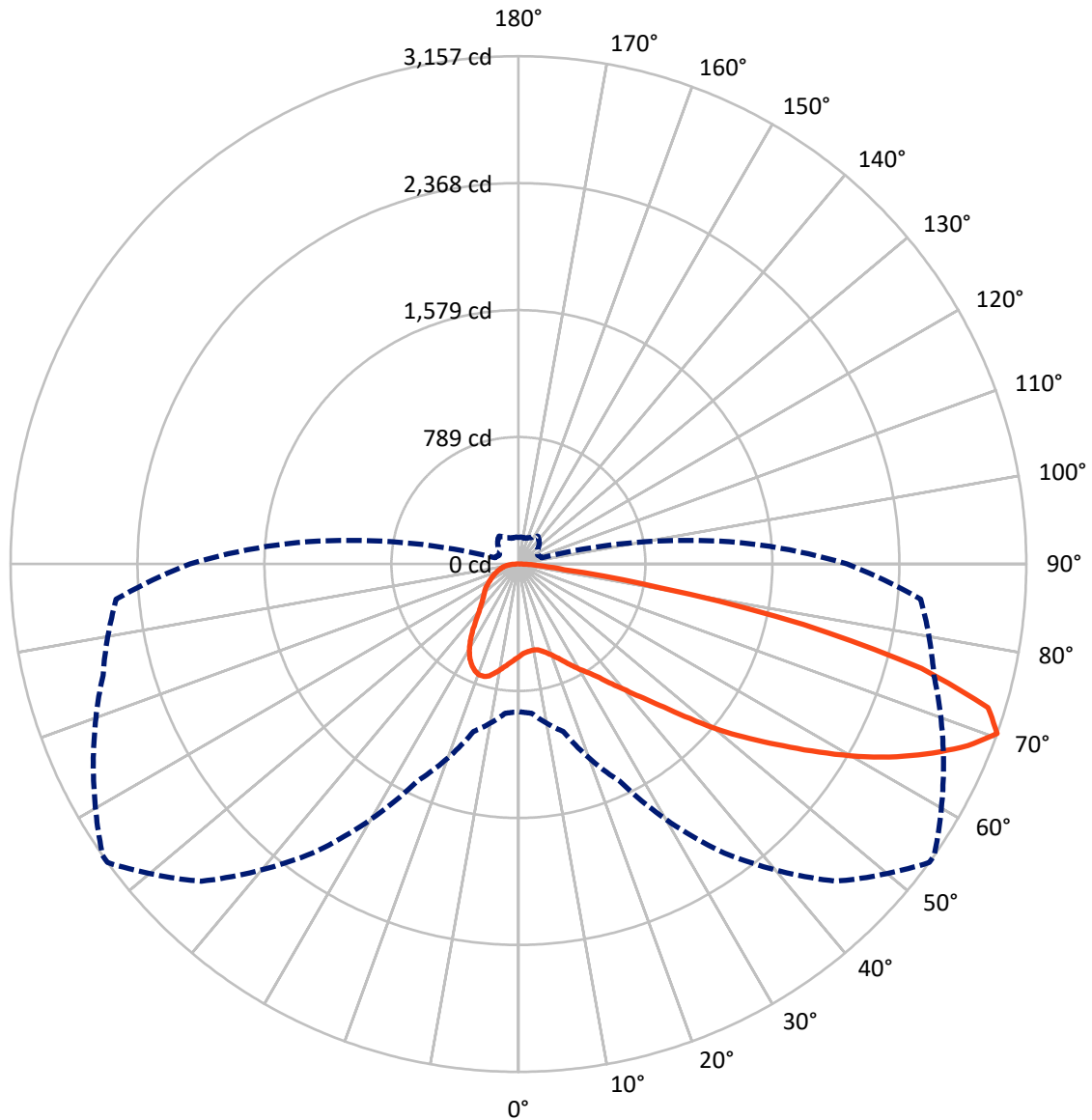


Based on 10 foot mounting height. Maximum calculated value = 6.7 fc  
 Type III - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1166.9	0.0	1166.9
	% Fixture	22.7	0.0	22.7
<b>Street Side</b>	Lumens	3978.1	0.0	3978.1
	% Fixture	77.3	0.0	77.3
<b>Total</b>	Lumens	5145.0	0.0	5145.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.5	1.1
10°-20°	180.5	3.5
20°-30°	313.6	6.1
30°-40°	458.3	8.9
40°-50°	719.2	14.0
50°-60°	1106.0	21.5
60°-70°	1351.3	26.3
70°-80°	837.8	16.3
80°-90°	121.7	2.4
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°	5145.0	100.0
0°-180°	5145.0	100.0

**Coefficient of Utilization**



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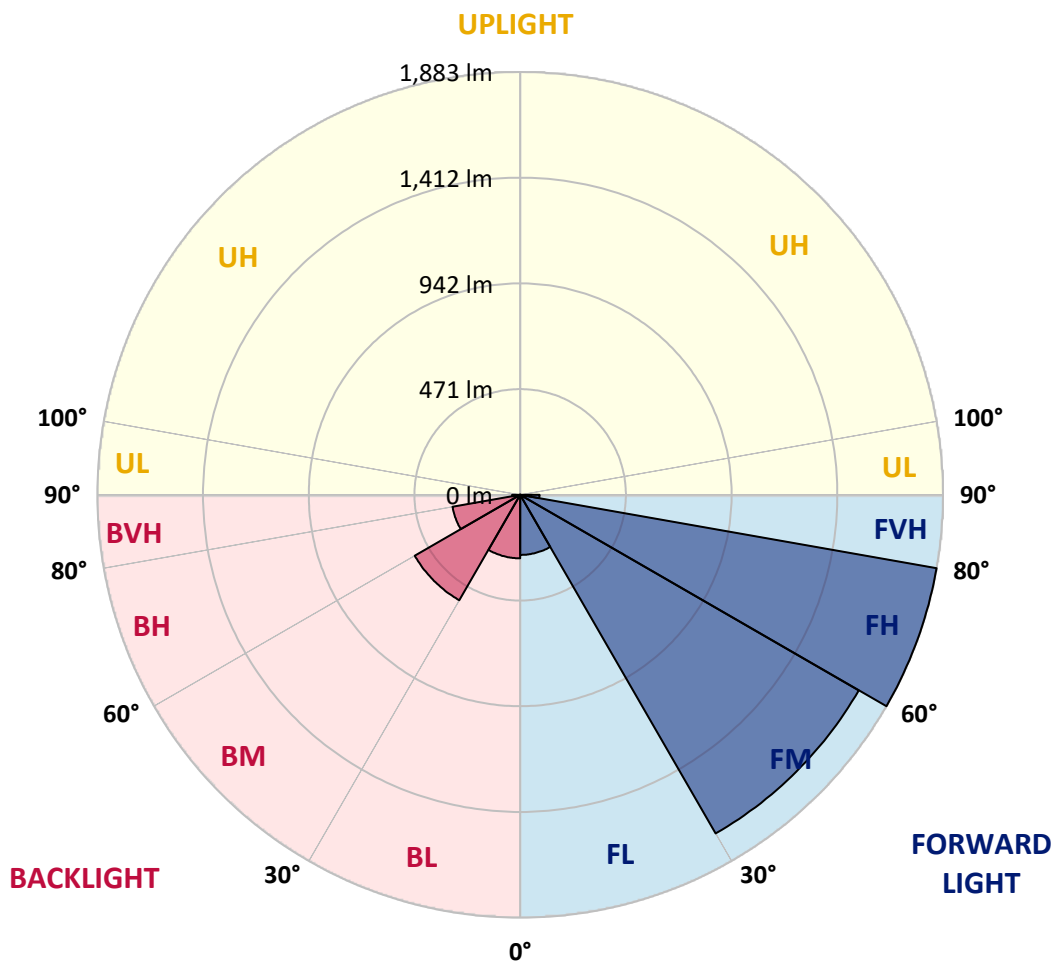
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	267.7	5.2			
FM	(30°-60°)	1741.3	33.8			
FH	(60°-80°)	1883.1	36.6			G2/5000
FVH	(80°-90°)	85.9	1.7			G1/100
BL	(0°-30°)	282.9	5.5	B1/500		
BM	(30°-60°)	542.2	10.5	B1/1000		
BH	(60°-80°)	306.0	5.9	B1/500		G1/500
BVH	(80°-90°)	35.8	0.7			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 III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	575.6	575.6	575.6	575.6	575.6	575.6	575.6	575.6	575.6	575.6	575.6
2.5°	553.0	551.1	551.1	554.0	554.9	557.7	557.7	558.7	561.5	566.2	571.9
5°	536.1	535.1	536.1	539.8	541.7	547.4	549.2	550.2	555.8	563.4	571.9
7.5°	519.1	518.2	520.0	525.7	531.3	539.8	544.5	545.5	554.0	564.3	575.6
10°	513.4	512.5	515.3	520.0	525.7	535.1	542.6	543.6	555.8	568.1	584.1
12.5°	521.0	520.0	522.9	527.6	533.2	539.8	548.3	549.2	565.3	581.3	598.2
15°	539.8	539.8	540.8	543.6	549.2	554.9	562.4	563.4	580.3	599.2	616.1
17.5°	569.0	567.1	567.1	566.2	570.0	572.8	582.2	583.2	601.1	618.0	635.0
20°	604.8	603.9	600.1	595.4	594.5	596.3	605.8	606.7	624.6	638.7	654.8
22.5°	648.2	649.1	640.6	630.3	625.6	628.4	636.9	637.8	651.0	663.2	677.4
25°	705.6	702.8	690.6	675.5	666.1	666.1	674.5	674.5	686.8	694.3	703.7
27.5°	760.3	754.6	743.3	721.6	706.6	709.4	717.9	717.9	729.2	732.0	736.7
30°	819.6	814.0	799.8	772.5	752.7	750.9	761.2	760.3	775.3	774.4	770.6
32.5°	892.2	889.3	865.8	830.9	804.6	798.0	807.4	808.3	817.7	814.9	802.7
35°	993.9	993.0	971.3	910.1	875.2	863.0	868.6	868.6	875.2	867.7	846.9
37.5°	1122.0	1123.9	1105.1	1014.6	965.6	944.9	945.9	944.9	946.8	938.3	916.7
40°	1250.2	1254.9	1253.9	1144.6	1082.5	1046.7	1033.5	1031.6	1036.3	1032.5	1011.8
42.5°	1418.8	1430.1	1403.7	1304.8	1235.1	1174.8	1139.0	1134.3	1144.6	1149.4	1129.6
45°	1594.0	1590.3	1548.8	1477.2	1414.1	1336.8	1269.0	1261.5	1269.0	1283.1	1262.4
47.5°	1685.4	1682.6	1672.2	1636.4	1627.0	1538.4	1435.8	1429.2	1415.0	1434.8	1410.3
50°	1836.1	1839.0	1796.6	1792.8	1832.4	1783.4	1624.2	1609.1	1583.7	1599.7	1579.0
52.5°	1945.4	1933.2	1906.8	1939.8	2063.2	2036.8	1801.3	1794.7	1771.1	1767.4	1758.0
55°	1989.7	1989.7	1994.4	2070.7	2246.9	2212.0	1993.5	2000.1	1968.0	1941.7	1953.9
57.5°	2002.9	2008.6	2049.1	2175.3	2462.6	2348.6	2205.5	2214.9	2168.7	2116.0	2154.6
60°	1937.9	1954.9	2051.9	2234.7	2584.2	2493.7	2428.7	2431.6	2364.7	2287.4	2355.2
62.5°	1771.1	1791.9	1965.2	2259.1	2564.4	2642.6	2639.8	2646.4	2555.0	2458.9	2543.7
65°	1566.7	1587.4	1772.1	2190.4	2549.3	2749.0	2832.9	2850.8	2733.0	2604.0	2661.4
67.5°	1266.2	1293.5	1468.7	1958.6	2475.8	2836.7	3013.8	3032.6	2870.6	2679.3	2651.1
70°	917.6	930.8	1077.8	1488.5	2176.2	2788.6	3157.0	3156.0	2915.8	2673.7	2509.7
72.5°	441.8	452.2	579.4	924.2	1556.3	2366.5	3053.3	3071.2	2853.6	2591.7	2186.6
75°	181.8	192.2	234.6	390.0	816.8	1563.9	2587.9	2630.3	2591.7	2326.0	1710.8
77.5°	113.1	116.8	137.5	201.6	373.1	730.1	1811.7	1869.1	2053.8	1863.5	1129.6
80°	84.8	87.6	102.7	141.3	235.5	269.4	899.7	972.2	1244.5	1069.3	511.6
82.5°	70.7	71.6	82.0	102.7	160.2	154.5	288.3	321.3	580.3	407.9	176.2
85°	65.9	67.8	73.5	73.5	101.7	97.0	119.6	125.3	168.6	139.4	61.2
87.5°	33.9	32.0	65.0	57.5	52.8	47.1	50.9	54.6	63.1	66.9	27.3
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°	575.6	575.6	575.6	575.6	575.6	575.6	575.6	575.6	575.6	575.6	575.6
2.5°	573.7	576.6	581.3	586.0	591.6	598.2	602.0	606.7	610.5	608.6	607.7
5°	576.6	581.3	591.6	601.1	612.4	625.6	634.0	643.5	651.0	652.9	650.0
7.5°	581.3	589.8	603.9	620.8	635.9	652.9	666.1	679.3	688.7	690.6	690.6
10°	592.6	602.0	620.8	643.5	661.4	679.3	694.3	704.7	713.2	716.9	716.9
12.5°	608.6	619.9	642.5	669.8	689.6	706.6	715.1	719.8	723.5	727.3	728.2
15°	627.4	639.7	667.0	696.2	716.9	725.4	725.4	724.5	724.5	726.4	728.2
17.5°	646.3	659.5	687.7	718.8	732.0	727.3	720.7	717.9	716.0	715.1	717.9
20°	666.1	679.3	707.5	736.7	733.0	713.2	703.7	697.2	691.5	688.7	692.4
22.5°	687.7	700.0	729.2	749.0	720.7	690.6	672.7	662.3	652.9	647.2	651.0
25°	713.2	725.4	753.7	752.7	699.0	656.6	628.4	611.4	601.1	595.4	595.4
27.5°	743.3	753.7	781.0	743.3	668.9	611.4	570.0	554.0	551.1	546.4	546.4
30°	774.4	782.9	806.4	721.6	627.4	552.1	506.8	499.3	500.3	495.5	496.5
32.5°	806.4	814.9	821.5	689.6	573.7	485.2	455.0	449.4	448.4	444.7	440.9
35°	851.7	863.9	823.4	646.3	508.7	429.6	407.9	402.3	396.6	383.4	383.4
37.5°	920.4	933.6	818.7	592.6	441.8	386.3	366.5	358.9	349.5	336.3	331.6
40°	1014.6	1014.6	808.3	532.3	388.1	351.4	332.6	323.1	312.8	299.6	296.8
42.5°	1125.8	1099.4	792.3	471.0	348.6	327.8	310.9	300.5	288.3	273.2	271.3
45°	1255.8	1184.2	769.7	416.4	319.4	313.7	303.4	285.5	264.7	248.7	245.9
47.5°	1382.1	1260.5	748.0	377.8	294.9	308.1	299.6	269.4	241.2	218.6	215.7
50°	1520.5	1328.4	722.6	345.7	276.0	304.3	294.9	245.9	214.8	198.8	196.9
52.5°	1659.0	1397.1	695.3	311.8	260.0	296.8	283.6	228.9	213.9	192.2	189.4
55°	1805.1	1477.2	663.2	274.2	241.2	281.7	268.5	228.0	220.5	192.2	185.6
57.5°	1947.3	1565.8	611.4	237.4	220.5	259.1	262.8	222.3	206.3	190.3	182.8
60°	2104.6	1660.0	525.7	206.3	202.6	240.2	255.3	210.1	190.3	184.7	180.9
62.5°	2230.9	1744.8	410.8	184.7	187.5	225.2	245.9	202.6	183.7	179.0	178.1
65°	2285.5	1746.6	294.9	165.8	172.4	211.0	236.5	196.0	178.1	176.2	175.2
67.5°	2228.1	1650.6	207.3	147.9	156.4	197.8	224.2	189.4	172.4	173.3	171.5
70°	2042.5	1448.0	151.7	131.0	141.3	183.7	211.0	180.9	165.8	167.7	164.9
72.5°	1709.0	1128.6	121.5	116.8	129.1	168.6	197.8	171.5	155.4	156.4	150.7
75°	1262.4	748.0	101.7	104.6	114.9	154.5	180.9	159.2	144.1	140.4	136.6
77.5°	750.9	384.4	83.8	91.4	102.7	137.5	162.0	144.1	131.9	125.3	122.5
80°	310.0	155.4	68.8	77.3	89.5	122.5	143.2	126.2	117.8	111.2	107.4
82.5°	123.4	76.3	54.6	63.1	75.4	106.5	125.3	111.2	102.7	98.0	87.6
85°	47.1	37.7	36.7	44.3	56.5	82.0	103.6	93.3	86.7	74.4	71.6
87.5°	18.8	17.0	17.0	21.7	32.0	51.8	74.4	65.0	67.8	53.7	54.6
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)