

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: P198735

Luminaire Tested: **XNV2-AF-02-LED-U-SL4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198735
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24284)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: XNV2-AF-02-LED-U-SL4
Description: XNV2 ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11768 lumens
Efficiency: N/A
Efficacy: 106.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G3

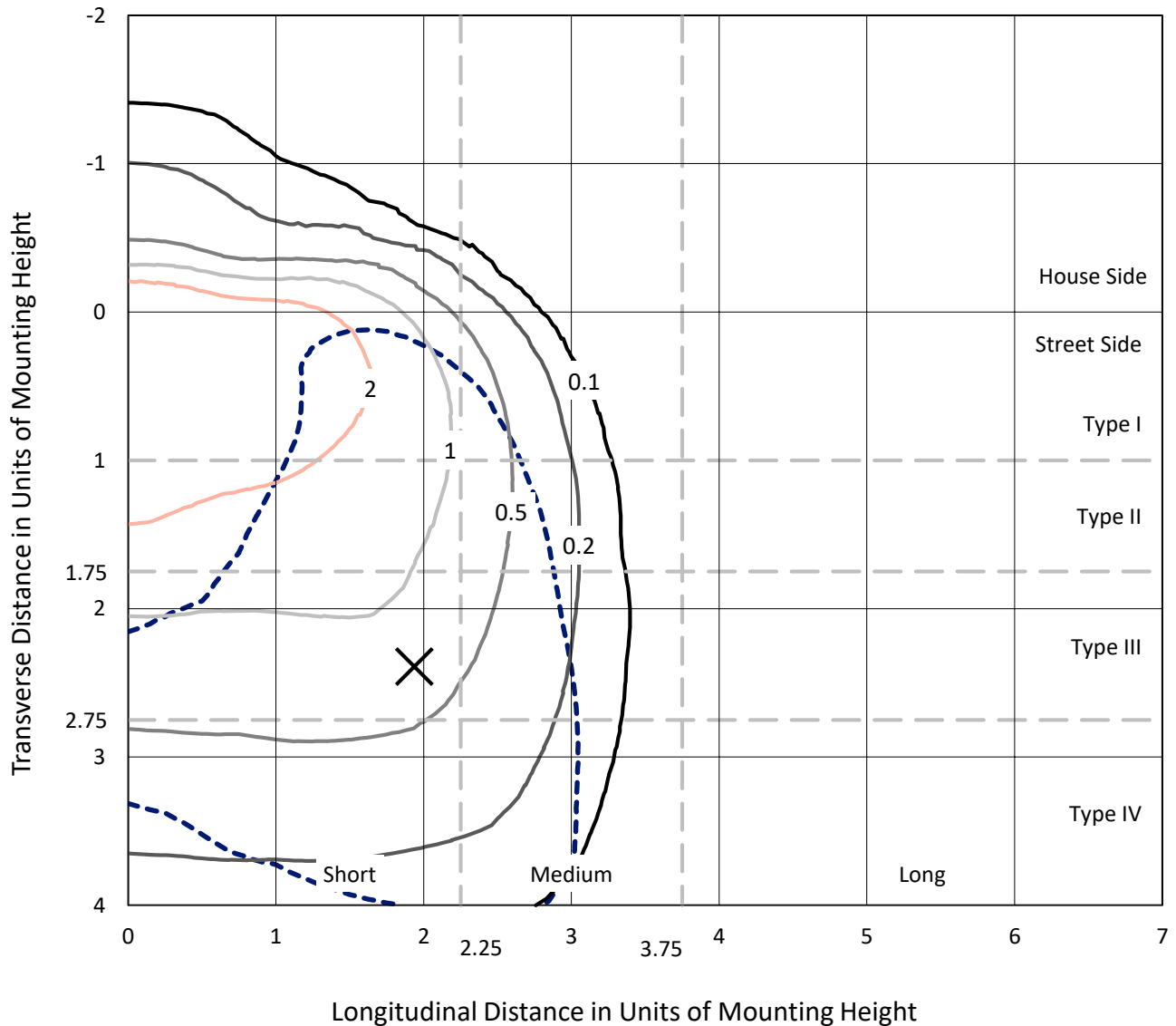
Input Watts (W): 111
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

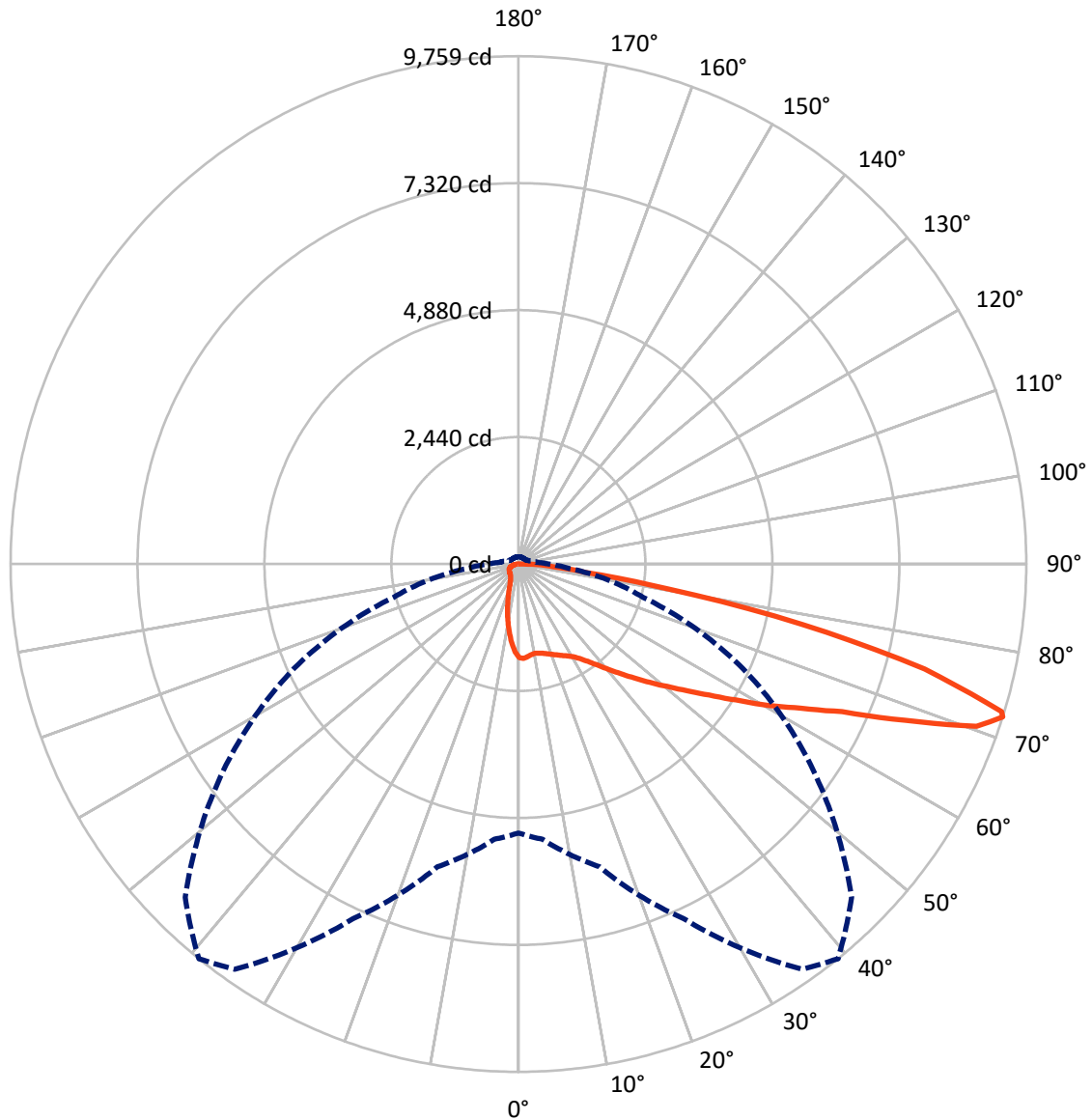
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.5 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1349.4	0.0	1349.4
	% Fixture	11.5	0.0	11.5
Street Side	Lumens	10418.7	0.0	10418.7
	% Fixture	88.5	0.0	88.5
Total	Lumens	11768.0	0.0	11768.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.4	1.3
10°-20°	388.1	3.3
20°-30°	604.8	5.1
30°-40°	931.2	7.9
40°-50°	1518.0	12.9
50°-60°	2358.9	20.0
60°-70°	3157.2	26.8
70°-80°	2270.5	19.3
80°-90°	384.9	3.3
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°	11768.0	100.0
0°-180°	11768.0	100.0

Coefficient of Utilization



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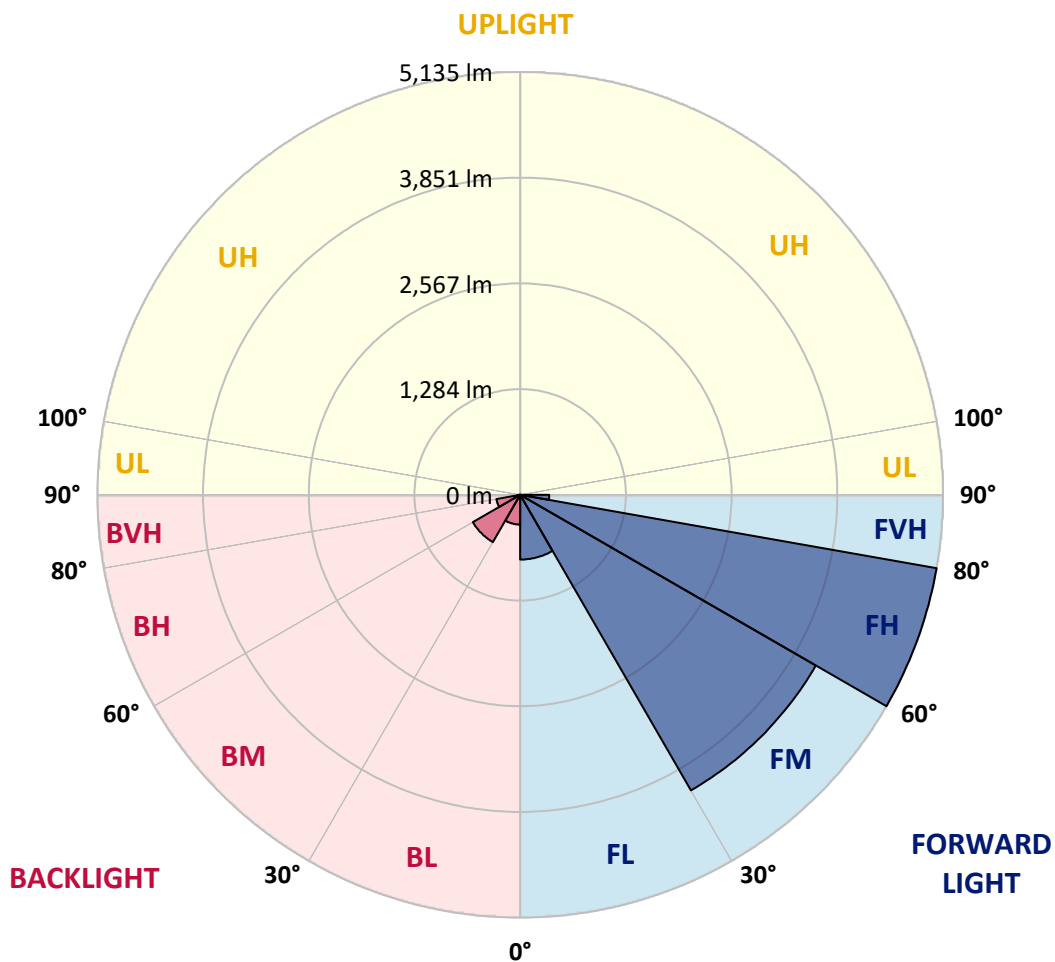
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	786.1	6.7			
FM	(30°-60°)	4144.9	35.2			
FH	(60°-80°)	5134.6	43.6			G3/7500
FVH	(80°-90°)	353.1	3.0			G3/500
BL	(0°-30°)	361.2	3.1	B1/500		
BM	(30°-60°)	663.1	5.6	B1/1000		
BH	(60°-80°)	293.2	2.5	B1/500		G1/500
BVH	(80°-90°)	31.8	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	1797.2	1797.2	1797.2	1797.2	1797.2	1797.2	1797.2	1797.2	1797.2	1797.2	1797.2
2.5°	1835.9	1836.7	1834.4	1827.2	1820.9	1817.7	1812.2	1802.7	1790.1	1781.4	1774.3
5°	1818.5	1820.9	1819.3	1807.5	1796.4	1790.1	1781.4	1768.0	1751.4	1744.2	1727.7
7.5°	1805.1	1806.6	1801.9	1788.5	1767.1	1759.3	1743.5	1726.1	1711.1	1700.9	1681.0
10°	1795.6	1797.2	1793.2	1779.8	1756.1	1746.6	1727.7	1708.7	1689.0	1676.3	1654.2
12.5°	1782.2	1785.4	1785.4	1779.0	1763.3	1756.9	1737.9	1717.4	1699.2	1685.8	1658.2
15°	1779.8	1783.7	1790.9	1790.1	1785.4	1780.7	1765.6	1745.1	1729.3	1713.4	1679.5
17.5°	1799.6	1808.3	1822.5	1827.2	1824.0	1813.8	1796.4	1777.5	1760.1	1745.1	1703.2
20°	1849.3	1854.1	1875.4	1884.9	1869.0	1854.1	1831.2	1806.6	1790.9	1779.0	1725.3
22.5°	1924.4	1930.7	1948.1	1948.8	1915.7	1897.5	1868.3	1838.2	1823.3	1818.5	1755.3
25°	2044.5	2042.8	2047.6	2027.9	1967.9	1946.5	1911.0	1876.2	1866.0	1875.4	1799.6
27.5°	2188.2	2184.3	2169.3	2117.9	2027.1	1999.5	1956.8	1925.9	1925.9	1948.1	1859.6
30°	2354.1	2350.1	2301.2	2215.1	2097.4	2065.7	2020.7	1988.4	2005.0	2047.6	1940.9
32.5°	2529.5	2515.2	2446.6	2331.2	2197.7	2162.9	2119.5	2086.3	2117.9	2190.5	2057.9
35°	2694.6	2686.7	2602.2	2465.5	2327.2	2298.1	2268.0	2227.0	2277.5	2390.4	2223.0
37.5°	2865.2	2858.9	2755.4	2610.1	2485.3	2465.5	2440.2	2411.8	2493.1	2641.7	2446.6
40°	3055.7	3043.0	2912.6	2767.3	2669.3	2659.9	2646.4	2638.5	2769.6	2990.8	2729.3
42.5°	3271.3	3246.7	3078.6	2940.3	2870.0	2877.9	2870.8	2902.3	3103.0	3393.7	3065.9
45°	3517.7	3468.7	3243.7	3124.3	3092.0	3123.6	3138.5	3219.1	3497.2	3859.0	3441.9
47.5°	3748.4	3685.2	3424.5	3324.2	3342.4	3396.9	3439.6	3581.8	3929.4	4318.8	3825.8
50°	3961.0	3889.9	3618.1	3531.2	3619.6	3697.0	3785.5	3986.2	4389.1	4792.0	4178.1
52.5°	4118.1	4066.7	3811.6	3757.1	3938.1	4040.8	4182.1	4435.7	4853.6	5243.0	4492.6
55°	4239.8	4212.1	4000.5	4016.2	4298.2	4445.1	4616.6	4908.1	5344.9	5647.5	4745.4
57.5°	4380.4	4359.8	4216.1	4329.0	4745.4	4930.2	5132.5	5456.3	5812.6	6003.8	4943.6
60°	4528.9	4528.9	4456.3	4705.9	5304.7	5516.4	5717.8	5969.8	6278.7	6324.5	5024.2
62.5°	4641.1	4670.3	4696.4	5107.2	5835.5	6098.6	6319.8	6561.5	6761.4	6482.5	4834.7
65°	4803.8	4866.3	5013.2	5570.9	6492.8	6837.2	7135.8	7338.9	7152.4	6356.9	4216.1
67.5°	5083.5	5175.9	5488.7	6261.3	7499.3	8015.0	8305.0	7954.3	7075.8	5566.2	3229.5
70°	5335.5	5465.8	6000.6	7137.4	8807.4	9343.0	9209.5	7811.3	6162.6	4080.2	1986.8
72°	5168.0	5310.2	6024.4	7519.0	9506.5	9759.4	9055.5	6922.5	4761.9	2490.0	979.6
72.5°	5058.2	5205.9	5947.7	7509.5	9525.5	9706.4	8841.4	6569.4	4322.7	2178.8	792.4
75°	4225.6	4351.9	5114.2	6655.5	8394.2	8062.5	6899.6	4251.6	1986.8	703.9	407.6
77.5°	2759.4	2855.8	3526.4	4611.1	5879.8	5560.7	4199.5	1990.8	744.9	427.4	306.5
80°	1386.4	1455.1	1887.2	2424.4	3173.3	2919.7	1938.6	963.0	498.5	308.8	240.9
82.5°	964.5	1027.8	1299.6	1237.9	1326.4	1283.7	911.7	803.4	372.9	195.1	126.4
85°	808.9	874.5	1075.1	882.4	722.0	658.1	653.4	759.1	246.4	96.4	106.7
87.5°	705.4	805.0	887.1	644.7	495.3	436.9	481.1	696.0	78.3	52.9	32.4
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°	1797.2	1797.2	1797.2	1797.2	1797.2	1797.2	1797.2	1797.2	1797.2	1797.2	1797.2
2.5°	1762.4	1760.1	1748.2	1730.0	1716.6	1707.9	1691.3	1690.5	1692.2	1677.9	1683.5
5°	1712.6	1703.2	1672.4	1630.5	1596.5	1564.2	1528.6	1516.7	1506.5	1485.1	1487.5
7.5°	1660.6	1644.0	1590.2	1521.5	1456.0	1395.9	1336.6	1307.4	1285.2	1257.6	1257.6
10°	1629.8	1603.7	1521.5	1421.2	1316.8	1229.2	1140.7	1087.8	1049.0	1013.5	1011.2
12.5°	1628.1	1588.6	1474.1	1335.9	1192.9	1069.6	948.8	867.4	809.8	767.8	763.9
15°	1640.8	1585.5	1434.6	1256.1	1075.9	915.5	766.3	662.8	589.3	542.7	538.0
17.5°	1651.9	1581.5	1391.9	1172.3	962.2	767.1	601.2	493.8	424.2	386.3	382.4
20°	1662.1	1572.8	1337.4	1083.8	836.6	628.0	470.0	383.1	337.4	316.0	313.6
22.5°	1677.1	1564.9	1280.5	984.3	713.3	511.1	387.9	325.5	301.0	290.7	289.1
25°	1701.6	1565.7	1225.3	882.4	600.4	425.8	335.7	297.1	283.6	276.5	276.5
27.5°	1737.2	1575.2	1170.8	778.9	504.8	367.3	304.9	282.0	273.3	267.8	266.2
30°	1789.2	1592.6	1113.1	681.0	428.9	327.0	286.7	272.5	265.5	260.6	259.9
32.5°	1865.1	1623.4	1052.2	591.7	371.3	298.6	273.3	264.6	259.1	255.1	254.4
35°	1978.1	1677.9	993.0	515.9	330.2	278.0	262.3	255.1	252.0	250.4	249.6
37.5°	2144.0	1765.6	936.9	456.6	303.3	264.6	251.2	247.2	245.7	245.7	245.7
40°	2352.6	1880.9	886.4	414.7	288.4	254.4	243.4	240.2	240.2	240.9	240.9
42.5°	2606.2	2025.4	842.9	386.3	279.7	247.2	237.7	236.2	235.4	235.4	236.2
45°	2900.8	2196.2	816.0	364.2	273.3	243.4	233.8	233.0	229.9	228.3	228.3
47.5°	3197.0	2378.6	814.5	351.6	265.5	238.6	229.9	229.9	223.5	220.4	221.2
50°	3473.5	2542.1	831.9	348.4	260.6	231.5	226.0	226.7	218.0	214.1	213.3
52.5°	3696.3	2666.9	853.1	352.3	260.6	225.2	218.8	222.8	213.3	208.6	207.8
55°	3868.5	2753.9	861.1	361.0	263.8	219.6	212.5	218.8	211.8	205.4	205.4
57.5°	3991.8	2781.5	827.1	365.0	268.6	218.8	206.2	218.0	214.1	206.2	206.2
60°	3946.7	2621.1	700.7	350.0	267.8	217.3	201.4	219.6	222.0	213.3	213.3
62.5°	3595.2	2193.0	562.4	316.0	254.4	211.8	195.9	218.0	227.5	224.3	222.8
65°	2926.9	1608.4	436.1	275.7	231.5	199.9	184.0	203.8	214.9	218.0	218.8
67.5°	2062.6	1018.2	338.9	234.7	203.1	182.5	170.6	180.1	184.0	185.7	188.8
70°	1128.1	551.4	269.3	197.5	173.8	165.1	156.4	157.2	155.6	154.1	155.6
72°	566.4	360.2	227.5	171.4	154.1	148.5	144.5	142.2	142.2	139.8	140.7
72.5°	487.4	334.9	219.6	165.1	149.4	144.5	141.4	139.0	138.2	136.7	137.5
75°	324.7	265.5	183.3	138.2	127.2	124.0	125.6	123.3	124.0	122.4	123.3
77.5°	262.3	228.3	155.6	116.9	109.0	104.2	107.4	108.2	109.8	108.2	107.4
80°	219.6	194.4	130.3	96.4	90.8	86.8	88.5	94.0	94.8	90.0	89.3
82.5°	142.2	156.4	102.7	75.1	69.6	67.9	71.9	77.4	79.0	72.6	71.1
85°	119.3	125.6	74.3	51.4	45.8	44.2	52.2	57.7	61.6	55.3	53.7
87.5°	33.1	61.6	36.3	24.4	20.6	20.6	25.3	30.0	35.6	36.3	36.3
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)