

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: P231358

Luminaire Tested: **ARCH-M-AF48-140-D-U-T4W-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231358
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-140-D-U-T4W-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 905mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12907.6 lumens
Efficiency: N/A
Efficacy: 91.5 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G3

Input Watts (W): 141
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

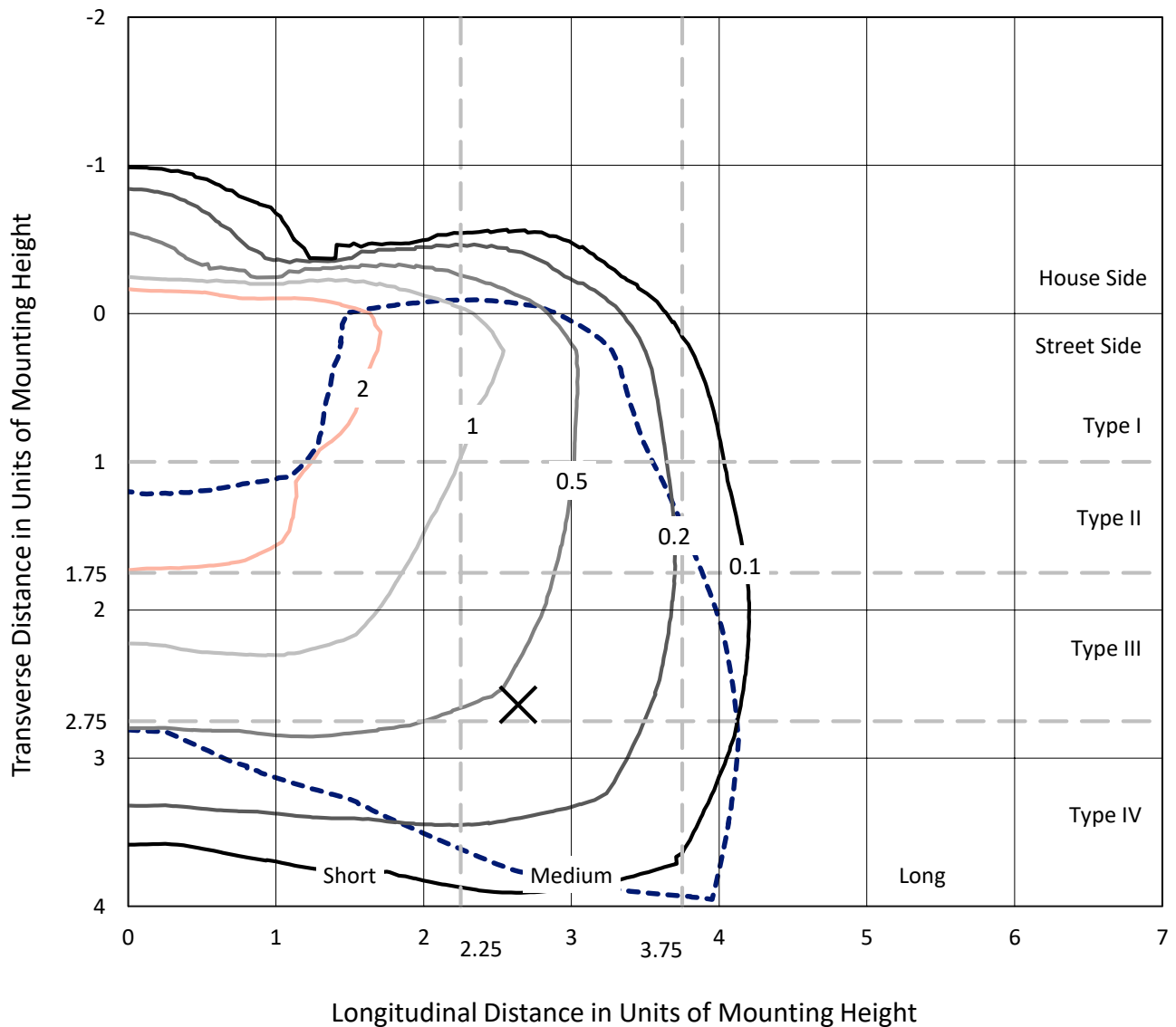


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

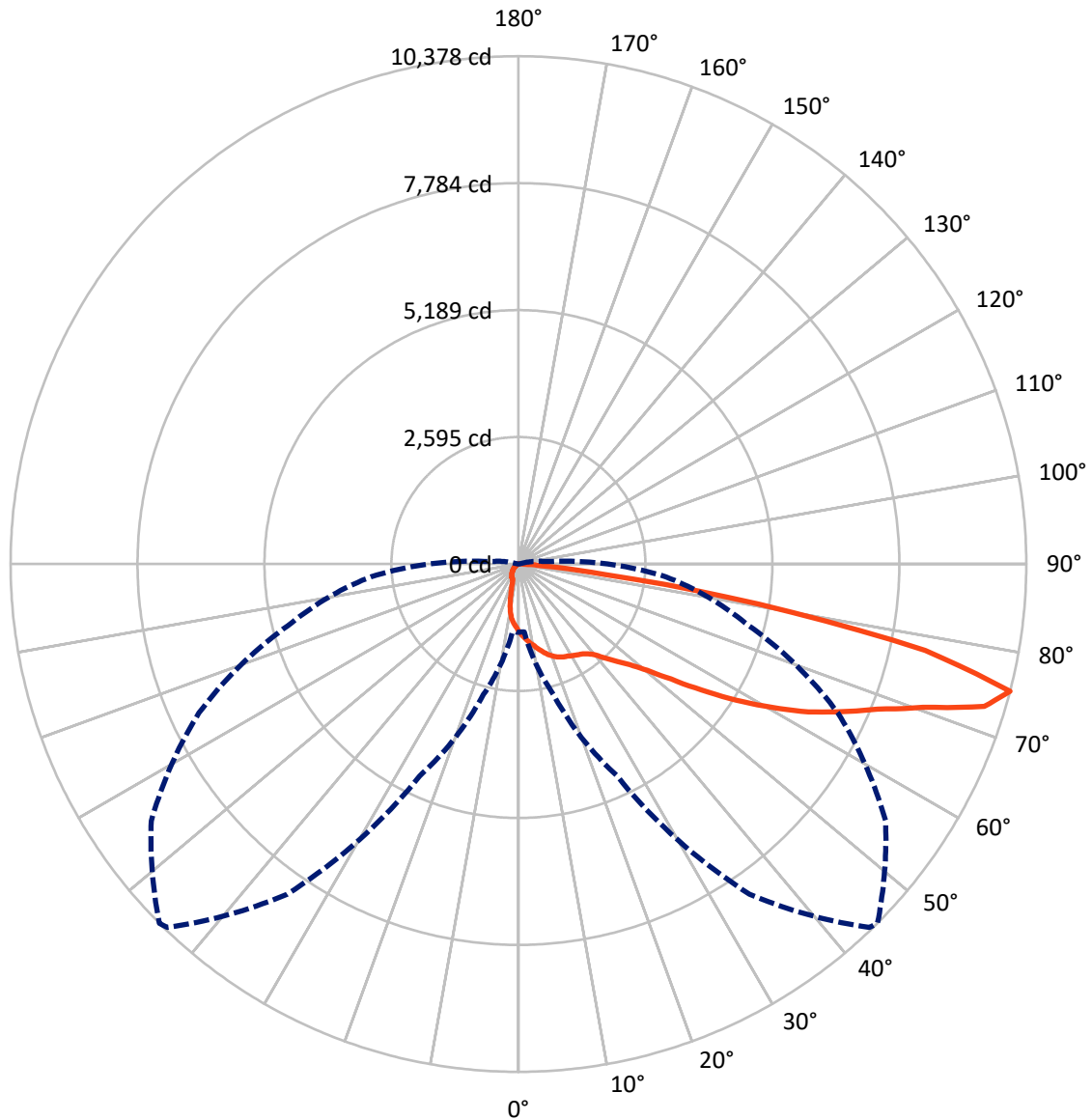


Based on 20 foot mounting height. Maximum calculated value = 4.6 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical



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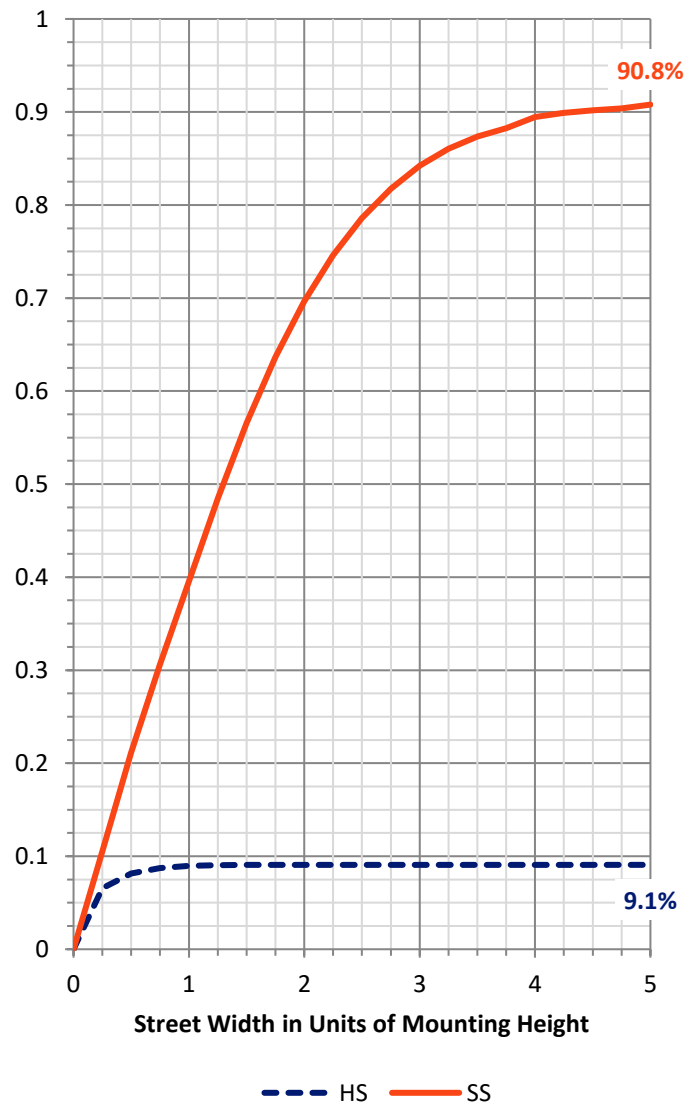
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1180.6	0.0	1180.6
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	11726.9	0.0	11726.9
	% Fixture	90.9	0.0	90.9
Total	Lumens	12907.6	0.0	12907.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.3	1.0
10°-20°	369.1	2.9
20°-30°	611.3	4.7
30°-40°	884.7	6.9
40°-50°	1448.7	11.2
50°-60°	2581.2	20.0
60°-70°	3794.8	29.4
70°-80°	2862.8	22.2
80°-90°	224.6	1.7
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°	12907.6	100.0
0°-180°	12907.6	100.0



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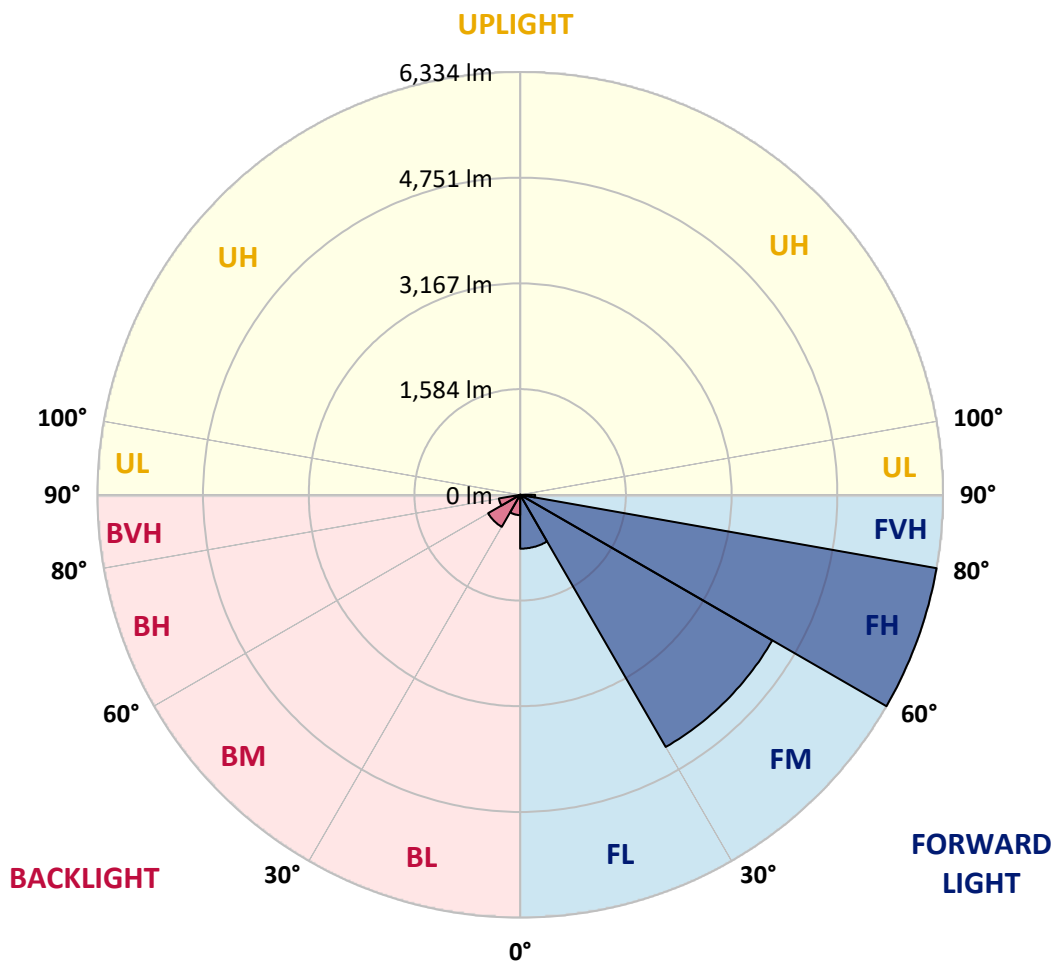
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	807.3	6.3			
FM	(30°-60°)	4361.4	33.8			
FH	(60°-80°)	6334.2	49.1			G3/7500
FVH	(80°-90°)	224.0	1.7			G2/225
BL	(0°-30°)	303.4	2.4	B1/500		
BM	(30°-60°)	553.3	4.3	B1/1000		
BH	(60°-80°)	323.4	2.5	B1/500		G1/500
BVH	(80°-90°)	0.6	0.0			G0/10
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 Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	1380.6	1380.6	1380.6	1380.6	1380.6	1380.6	1380.6	1380.6	1380.6	1380.6	1380.6
2.5°	1499.6	1499.6	1496.6	1493.5	1478.3	1463.0	1460.0	1450.7	1423.3	1404.9	1386.6
5°	1624.9	1627.9	1621.8	1606.5	1573.0	1539.3	1536.3	1511.9	1460.0	1423.3	1383.5
7.5°	1744.0	1750.1	1734.8	1707.3	1667.6	1618.8	1615.8	1569.9	1502.7	1450.7	1392.7
10°	1844.8	1844.8	1823.4	1789.9	1747.1	1695.1	1689.0	1637.1	1560.7	1496.6	1420.3
12.5°	1954.8	1951.7	1921.1	1875.4	1826.5	1777.6	1774.5	1710.4	1637.1	1554.7	1460.0
15°	2055.5	2049.4	2009.7	1966.9	1915.1	1863.1	1860.0	1795.9	1719.6	1621.8	1518.0
17.5°	2110.6	2107.5	2070.8	2028.0	1985.2	1945.6	1942.5	1875.4	1792.8	1692.1	1576.1
20°	2119.7	2122.7	2092.1	2055.5	2031.1	2009.7	2009.7	1948.6	1860.0	1753.1	1637.1
22.5°	2122.7	2131.9	2110.6	2061.7	2055.5	2058.6	2064.7	2015.8	1924.2	1823.4	1701.3
25°	2144.1	2156.3	2141.0	2083.0	2076.9	2098.3	2104.4	2083.0	2000.6	1899.7	1774.5
27.5°	2186.9	2199.0	2186.9	2113.5	2104.4	2125.8	2131.9	2144.1	2083.0	1973.1	1850.9
30°	2272.4	2275.5	2247.9	2156.3	2138.0	2165.5	2174.7	2208.2	2159.3	2043.3	1924.2
32.5°	2422.0	2391.6	2309.0	2186.9	2171.6	2202.1	2211.3	2247.9	2229.6	2110.6	2000.6
35°	2727.5	2568.6	2379.3	2229.6	2214.4	2244.9	2257.1	2309.0	2318.2	2205.2	2095.2
37.5°	2724.4	2580.9	2544.2	2312.1	2290.7	2312.1	2327.3	2391.6	2428.2	2330.4	2232.7
40°	2916.8	2855.8	2855.8	2467.9	2397.6	2428.2	2443.4	2507.6	2571.7	2495.4	2394.5
42.5°	3521.6	3481.9	3439.2	2767.2	2547.2	2632.8	2642.0	2681.7	2758.0	2733.6	2614.5
45°	4196.6	4159.9	3995.0	3274.2	2803.8	2819.2	2840.5	2904.7	3014.5	3060.4	2919.9
47.5°	4725.0	4688.3	4547.8	3885.1	3204.0	3069.6	3069.6	3194.8	3365.8	3481.9	3347.5
50°	5149.5	5106.8	5021.3	4535.7	3860.6	3430.0	3411.6	3558.2	3811.7	3992.0	3900.3
52.5°	5561.9	5436.7	5384.7	5207.5	4602.8	3952.3	3903.4	4007.2	4358.5	4581.4	4505.1
55°	5836.8	5818.4	5763.4	5824.5	5381.6	4587.5	4544.8	4566.1	5006.0	5155.7	5060.9
57.5°	6093.3	6090.2	6212.4	6496.5	6230.8	5314.4	5247.2	5213.7	5632.1	5595.4	5677.9
60°	6410.9	6356.0	6640.0	7046.2	7009.6	6023.0	5946.7	5879.5	6111.6	6007.8	6417.1
62.5°	6426.2	6410.9	6988.2	7571.6	7782.3	6743.9	6655.3	6414.0	6530.1	6410.9	7122.6
65°	5842.9	5919.2	7134.8	7849.5	8429.8	7376.1	7269.2	6893.6	6902.7	6823.3	7953.3
67.5°	5711.5	5751.2	6731.6	8148.8	8897.1	8014.4	7913.6	7446.4	7336.4	7342.5	8445.1
70°	5384.7	5445.8	6230.8	8127.4	9266.7	8866.6	8765.8	8258.8	7993.0	7696.8	8066.4
72.5°	4114.1	4217.9	5250.3	7125.7	9165.9	9981.4	9953.9	9288.1	8255.7	7067.6	6102.4
75°	1392.7	1389.7	2758.0	4786.1	8234.3	10323.5	10378.4	9159.8	7202.0	4874.7	3029.9
77.5°	299.3	302.4	568.1	1939.5	5470.2	8289.4	8500.1	6908.8	4645.5	2171.6	693.4
80°	146.6	149.7	235.2	513.1	2186.9	4648.6	4978.5	3552.1	1716.5	433.7	116.1
82.5°	73.3	76.3	122.1	271.8	809.4	1652.4	1765.4	1307.2	491.7	244.4	58.0
85°	27.5	27.5	61.1	161.8	369.6	387.9	476.5	378.7	296.2	198.6	15.2
87.5°	6.1	6.1	33.6	79.4	164.9	122.1	122.1	116.1	180.2	134.4	6.1
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°	1380.6	1380.6	1380.6	1380.6	1380.6	1380.6	1380.6	1380.6	1380.6	1380.6	1380.6
2.5°	1377.5	1365.2	1343.9	1322.5	1307.2	1288.9	1279.7	1270.6	1267.5	1264.5	1270.6
5°	1362.2	1343.9	1304.2	1270.6	1240.0	1215.6	1197.3	1179.0	1169.7	1163.7	1166.8
7.5°	1362.2	1334.7	1276.6	1224.8	1175.9	1124.0	1072.1	1032.4	1001.8	983.5	986.5
10°	1377.5	1340.8	1264.5	1194.2	1102.6	992.7	879.6	794.1	736.1	702.5	702.5
12.5°	1411.1	1362.2	1267.5	1157.6	1001.8	809.4	638.3	534.5	491.7	467.3	470.4
15°	1456.9	1398.9	1282.8	1108.7	861.3	601.7	445.9	378.7	378.7	384.8	387.9
17.5°	1508.9	1444.7	1295.1	1035.4	681.1	430.7	351.3	345.1	354.2	369.6	369.6
20°	1560.7	1490.5	1301.1	919.3	510.0	342.1	332.9	332.9	339.0	354.2	357.3
22.5°	1624.9	1548.5	1295.1	775.8	381.8	323.8	320.7	320.7	320.7	339.0	339.0
25°	1692.1	1615.8	1270.6	623.1	323.8	311.5	308.5	305.5	305.5	320.7	323.8
27.5°	1768.5	1685.9	1212.5	476.5	305.5	299.3	296.2	290.1	290.1	302.4	302.4
30°	1844.8	1765.4	1124.0	360.4	290.1	287.1	281.0	274.9	268.7	281.0	281.0
32.5°	1927.2	1847.9	1007.9	287.1	268.7	268.7	265.8	256.6	250.4	256.6	259.6
35°	2037.2	1942.5	876.6	250.4	241.3	241.3	241.3	238.2	226.0	232.1	232.1
37.5°	2183.8	2073.8	723.8	232.1	219.9	213.8	213.8	213.8	204.6	207.7	207.7
40°	2370.1	2226.6	577.3	216.9	204.6	189.3	183.2	186.3	180.2	180.2	177.2
42.5°	2623.7	2391.6	433.7	204.6	192.4	171.0	158.9	155.8	149.7	146.6	146.6
45°	2987.1	2593.1	311.5	192.4	183.2	149.7	137.5	128.3	113.0	103.8	103.8
47.5°	3457.5	2822.1	232.1	180.2	174.1	131.3	116.1	97.7	76.3	70.3	70.3
50°	4031.7	3078.7	195.5	161.8	158.9	116.1	91.7	64.1	42.8	36.6	39.7
52.5°	4590.6	3320.0	174.1	143.5	140.5	100.8	67.2	33.6	18.3	18.3	18.3
55°	5060.9	3491.0	158.9	128.3	122.1	79.4	36.6	15.2	9.2	9.2	9.2
57.5°	5485.5	3588.8	143.5	113.0	97.7	54.9	15.2	6.1	6.1	3.1	3.1
60°	5873.4	3646.8	125.2	97.7	76.3	30.6	6.1	3.1	3.1	0.0	0.0
62.5°	6255.1	3689.6	106.9	79.4	58.0	12.2	3.1	3.1	0.0	0.0	0.0
65°	6545.4	3674.3	85.5	64.1	36.6	6.1	3.1	0.0	0.0	0.0	0.0
67.5°	6536.1	3466.6	64.1	48.9	18.3	3.1	0.0	0.0	0.0	0.0	0.0
70°	5845.9	2919.9	42.8	30.6	6.1	3.1	0.0	0.0	0.0	0.0	0.0
72.5°	4147.8	1872.3	27.5	18.3	3.1	0.0	0.0	0.0	0.0	0.0	0.0
75°	1826.5	568.1	15.2	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	357.3	131.3	9.2	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	85.5	15.2	3.1	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	36.6	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	9.2	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.1	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)