

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: LUMARK

Report Number: P233683

Luminaire Tested: **VRDN-C02-D-UNV-T2-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P233683
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1710-389-32)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: VRDN-C02-D-UNV-T2-7030-HSS
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 1140mA LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9714 lumens
Efficiency: N/A
Efficacy: 107.9 lumens/watt
Luminous Opening: Rectangular (W 0.79' x L: 1.25' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B2 - U0 - G2

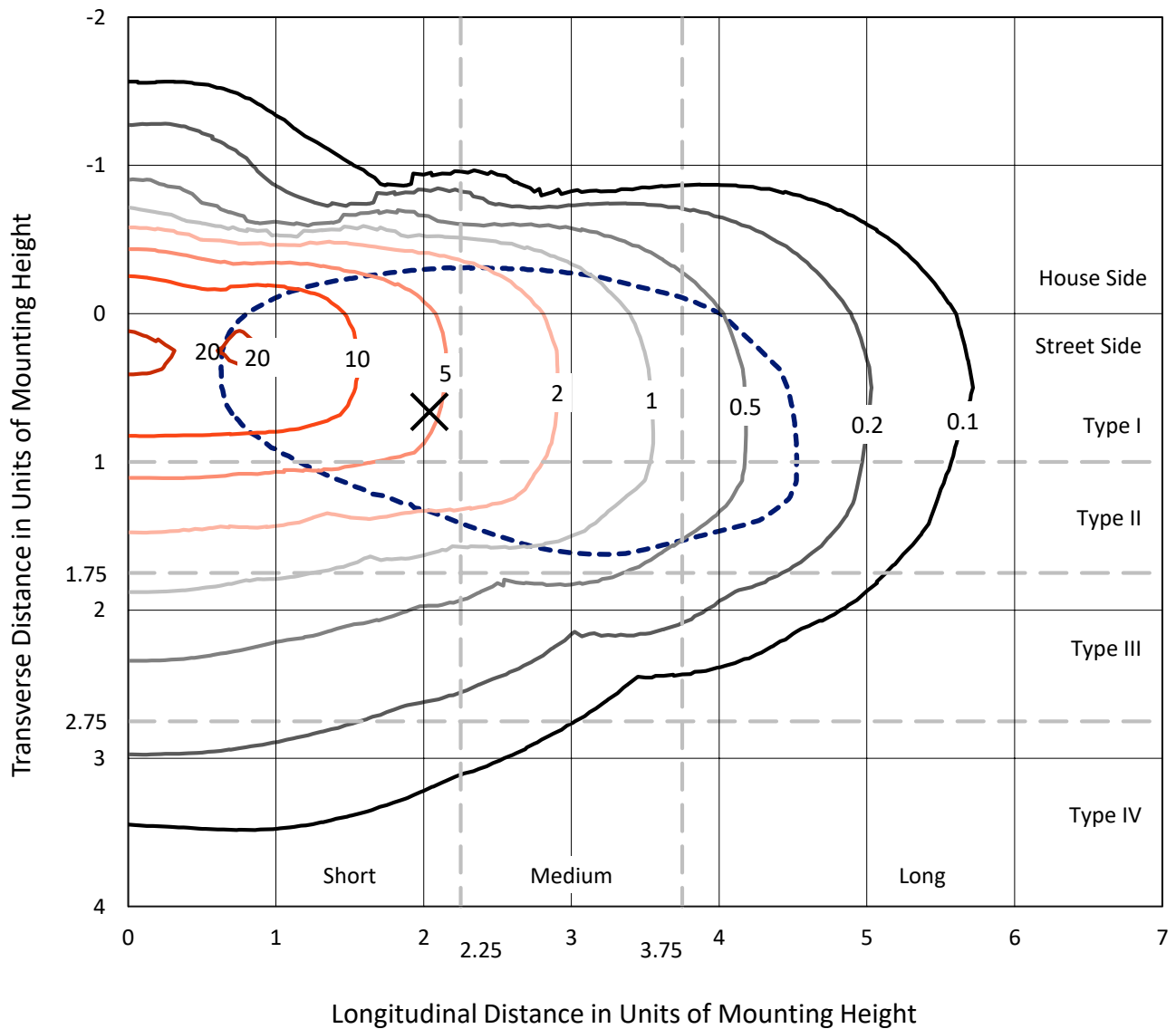
Input Watts (W): 90
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

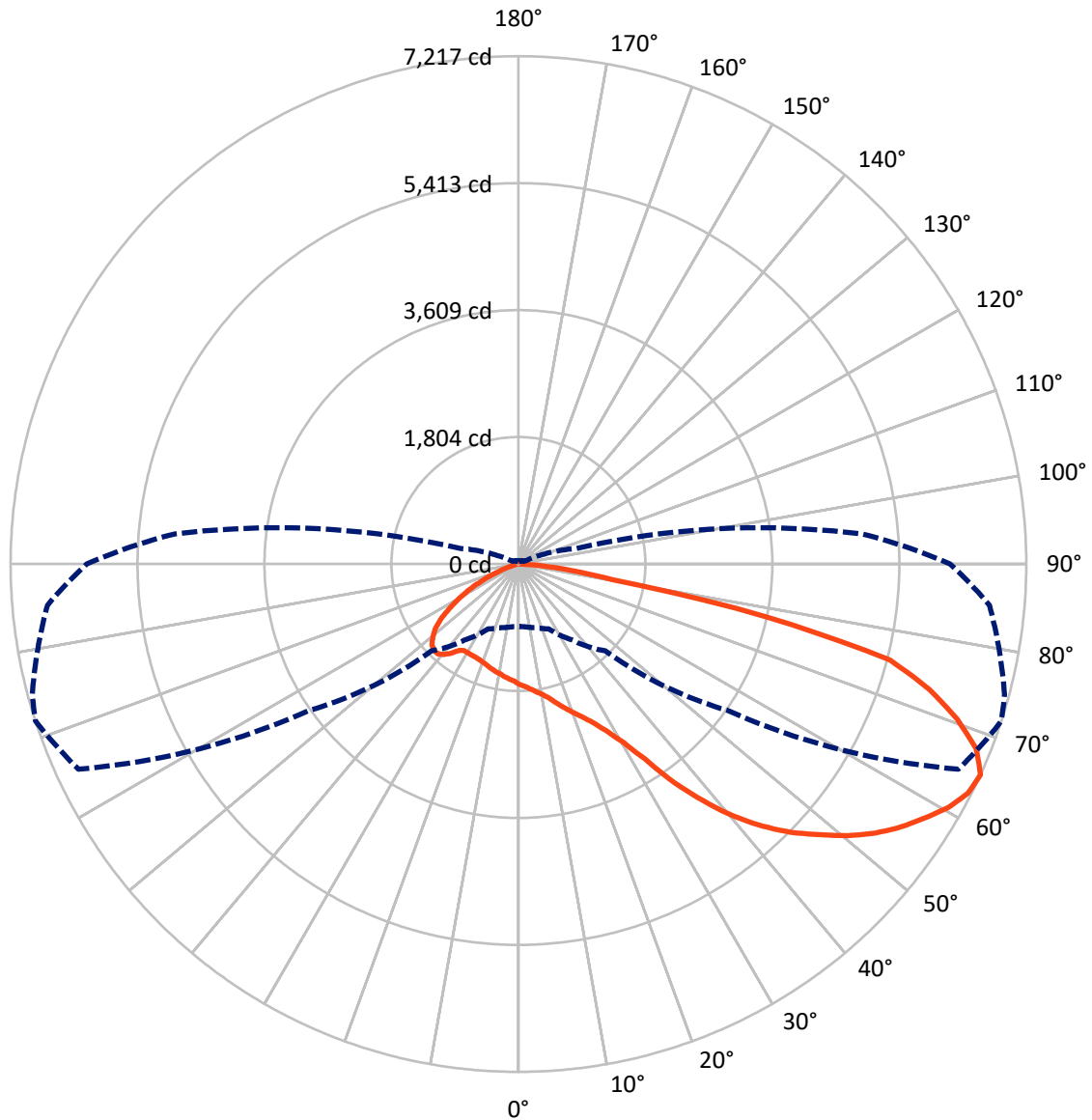
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 21.4 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 72-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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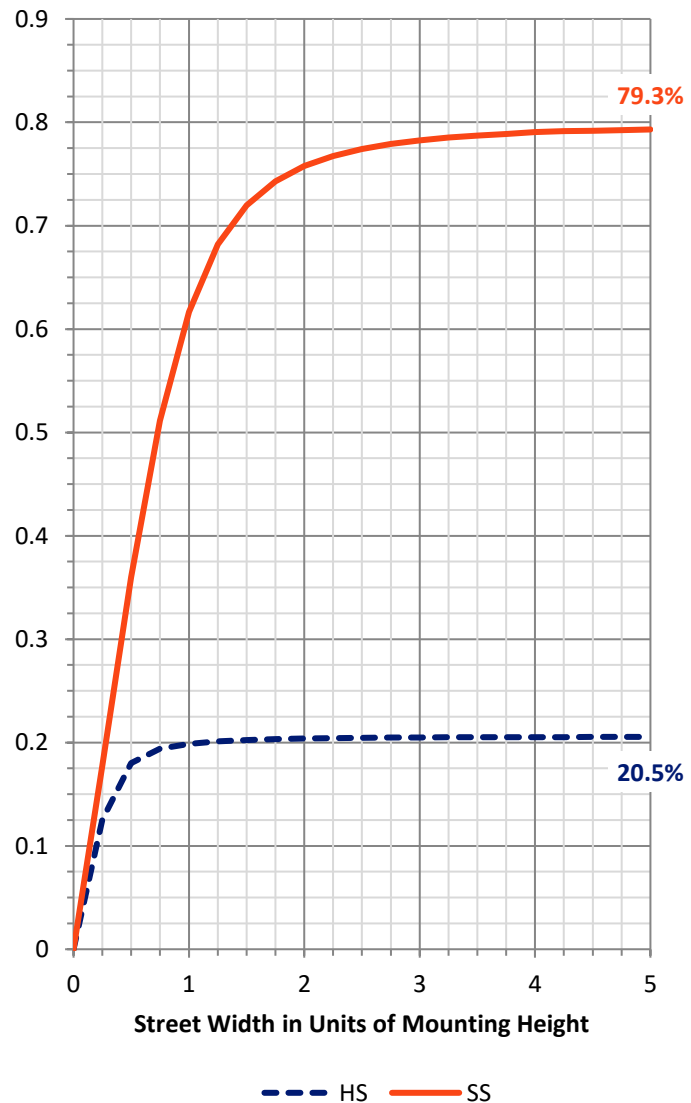
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2018.6	0.0	2018.6
	% Fixture	20.8	0.0	20.8
Street Side	Lumens	7695.4	0.0	7695.4
	% Fixture	79.2	0.0	79.2
Total	Lumens	9714.0	0.0	9714.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.1	1.7
10°-20°	498.1	5.1
20°-30°	832.3	8.6
30°-40°	1231.2	12.7
40°-50°	1702.1	17.5
50°-60°	1991.7	20.5
60°-70°	1979.7	20.4
70°-80°	1185.7	12.2
80°-90°	129.1	1.3
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°	9714.0	100.0
0°-180°	9714.0	100.0



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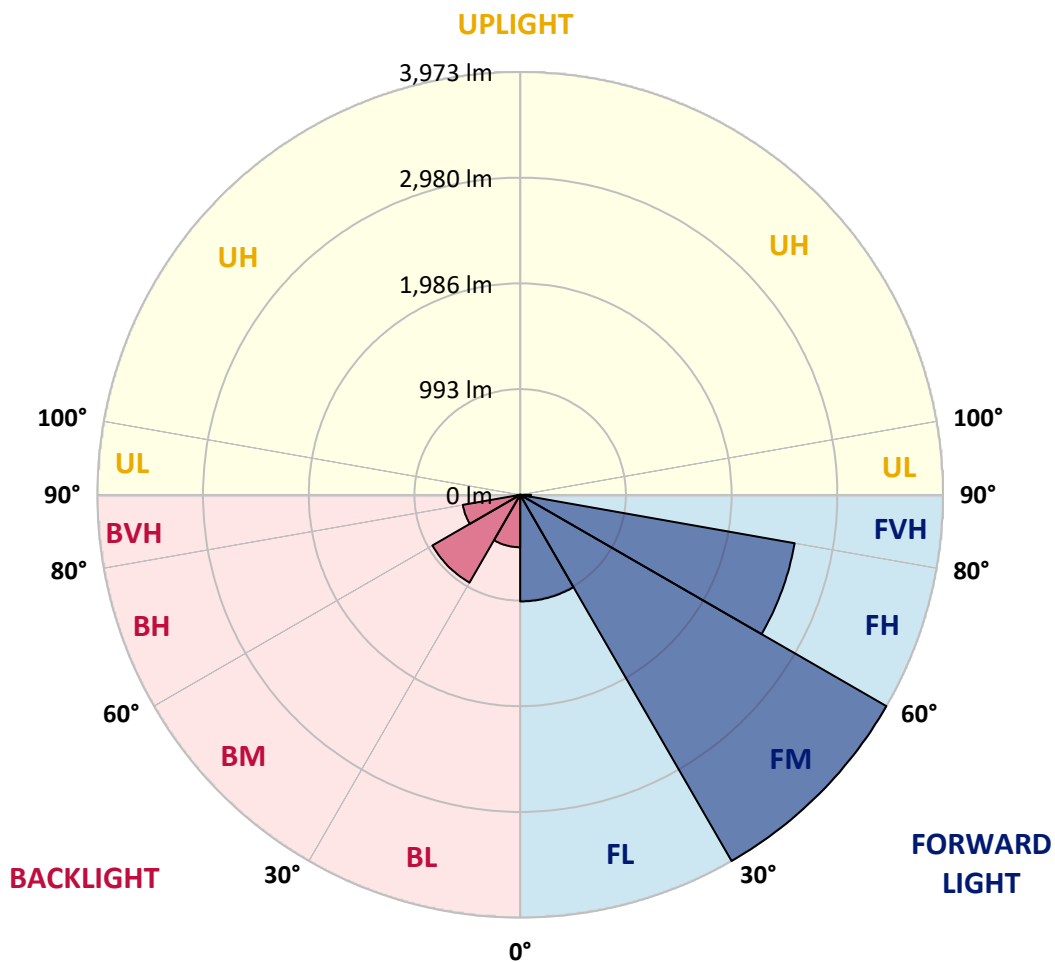
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1001.7	10.3			
FM	(30°-60°)	3972.7	40.9			
FH	(60°-80°)	2618.9	27.0			G2/5000
FVH	(80°-90°)	102.0	1.1			G2/225
BL	(0°-30°)	492.8	5.1	B1/500		
BM	(30°-60°)	952.2	9.8	B1/1000		
BH	(60°-80°)	546.5	5.6	B2/1000		G2/1000
BVH	(80°-90°)	27.0	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	72°	75°	85°
0°	1712.0	1712.0	1712.0	1712.0	1712.0	1712.0	1712.0	1712.0	1712.0	1712.0	1712.0
2.5°	1856.3	1857.8	1858.6	1829.3	1813.5	1795.2	1777.8	1758.8	1738.9	1731.8	1705.7
5°	1970.4	1972.0	1967.2	1940.3	1910.9	1884.0	1850.7	1816.6	1783.3	1773.8	1729.4
7.5°	2080.6	2079.8	2075.8	2041.7	2005.3	1969.6	1922.8	1876.9	1833.3	1818.2	1752.4
10°	2171.7	2173.3	2175.7	2139.2	2103.5	2060.7	2003.7	1935.5	1885.6	1861.8	1776.2
12.5°	2271.6	2266.8	2273.2	2237.5	2188.3	2149.5	2098.0	2017.9	1958.5	1928.4	1822.2
15°	2385.7	2385.7	2377.0	2347.7	2297.7	2250.2	2198.7	2124.9	2053.6	2007.6	1884.0
17.5°	2464.2	2459.4	2457.0	2431.7	2388.9	2347.7	2308.0	2232.7	2155.1	2098.8	1941.9
20°	2497.5	2499.0	2510.1	2491.9	2468.9	2444.4	2400.8	2342.1	2256.5	2196.3	2003.7
22.5°	2561.7	2563.2	2576.7	2564.0	2557.7	2551.4	2510.9	2459.4	2368.3	2310.4	2081.3
25°	2565.6	2567.2	2603.7	2624.3	2656.8	2671.8	2644.1	2599.7	2507.0	2450.7	2197.1
27.5°	2577.5	2582.3	2619.5	2676.6	2762.2	2792.3	2776.5	2774.9	2696.4	2637.0	2347.7
30°	2567.2	2572.0	2625.9	2705.1	2824.0	2912.8	2931.0	2977.8	2946.1	2901.7	2556.9
32.5°	2494.3	2511.7	2575.9	2701.9	2877.1	3038.0	3096.7	3256.8	3304.3	3309.1	2977.0
35°	2361.9	2371.4	2487.9	2665.5	2912.8	3156.1	3317.8	3613.4	3814.7	3806.0	3442.2
37.5°	2261.3	2264.4	2384.1	2603.7	2932.6	3282.9	3569.8	4043.0	4274.5	4284.8	3862.3
40°	2132.1	2155.1	2270.0	2529.2	2921.5	3389.9	3820.3	4443.3	4712.8	4701.7	4230.9
42.5°	2011.6	2025.1	2139.2	2412.7	2881.1	3471.6	4066.0	4830.9	5095.6	5059.1	4584.4
45°	1886.4	1909.4	2014.0	2262.1	2801.0	3517.5	4288.7	5198.6	5441.2	5396.0	4895.8
47.5°	1761.1	1777.8	1888.7	2124.1	2650.4	3515.9	4507.5	5543.4	5747.9	5716.2	5190.7
50°	1340.3	1376.7	1668.4	1979.9	2438.8	3449.4	4684.2	5870.7	6069.7	6020.5	5478.4
52.5°	1228.5	1240.4	1322.0	1812.7	2212.9	3290.8	4822.1	6178.3	6353.4	6297.2	5749.5
55°	1161.1	1175.4	1208.7	1473.4	2027.5	3030.1	4879.2	6465.2	6596.0	6538.9	5991.2
57.5°	1071.6	1085.9	1151.6	1268.9	1834.1	2633.0	4795.2	6719.6	6810.8	6748.1	6215.5
60°	1009.8	1016.1	1079.5	1171.5	1622.4	2231.9	4514.6	6926.5	7021.6	6947.1	6437.4
62.5°	952.7	959.8	1005.0	1096.2	1447.3	1937.9	4077.9	6977.2	7171.4	7113.5	6640.3
65°	886.9	893.3	934.5	1015.3	1311.7	1746.1	3627.7	6899.5	7217.4	7151.6	6718.8
67.5°	799.7	808.4	840.9	913.9	1134.2	1528.9	2958.0	6756.1	7016.0	6947.9	6557.9
70°	691.9	695.9	734.7	800.5	958.2	1326.8	2319.9	6245.6	6617.4	6542.1	6104.6
72.5°	558.8	565.9	607.9	676.9	787.0	1093.0	1657.3	5396.8	6112.5	6083.9	5444.3
75°	373.3	401.1	500.9	570.7	650.7	853.6	1112.8	3787.8	5457.0	5479.2	4650.9
77.5°	71.3	73.7	210.0	312.3	380.4	521.5	688.8	1861.0	3596.8	3985.9	3507.2
80°	46.8	50.7	89.6	218.8	252.0	258.4	353.5	815.6	1355.3	1714.4	2022.7
82.5°	24.6	29.3	53.9	126.8	115.7	64.2	115.7	420.9	751.4	863.1	1020.1
85°	10.3	11.9	26.2	43.6	32.5	26.9	26.9	168.0	332.9	385.2	400.3
87.5°	1.6	1.6	5.5	7.9	4.8	3.2	2.4	0.8	0.8	0.8	0.8
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°	1712.0	1712.0	1712.0	1712.0	1712.0	1712.0	1712.0	1712.0	1712.0	1712.0	1712.0
2.5°	1705.7	1691.4	1671.6	1648.6	1631.9	1623.2	1616.1	1597.1	1590.7	1603.4	1600.2
5°	1712.8	1696.1	1651.0	1613.7	1576.5	1553.5	1528.1	1494.8	1480.6	1488.5	1486.1
7.5°	1717.5	1696.9	1629.6	1571.7	1509.1	1465.5	1432.2	1388.6	1367.2	1375.1	1365.6
10°	1724.7	1693.8	1604.2	1527.3	1445.7	1382.3	1333.1	1282.4	1260.2	1266.6	1258.6
12.5°	1754.8	1704.9	1592.3	1489.3	1389.4	1310.2	1248.3	1194.4	1162.7	1169.1	1162.7
15°	1803.9	1727.1	1574.9	1440.9	1330.0	1239.6	1168.3	1106.5	1070.0	1078.7	1070.8
17.5°	1855.5	1754.0	1559.0	1387.0	1266.6	1165.9	1091.4	1039.1	980.4	986.0	974.1
20°	1899.8	1779.4	1550.3	1336.3	1207.1	1087.4	997.9	962.2	881.4	860.8	847.3
22.5°	1961.7	1816.6	1543.2	1295.1	1133.4	1009.0	902.8	836.2	749.0	705.4	701.4
25°	2049.6	1872.1	1542.4	1262.6	1066.8	926.5	778.3	666.6	589.7	538.2	531.0
27.5°	2161.4	1945.8	1551.1	1230.1	1000.3	822.7	625.4	501.7	432.8	393.1	386.0
30°	2322.3	2042.5	1562.2	1192.9	925.7	688.0	466.0	369.3	312.3	283.7	278.2
32.5°	2667.1	2290.6	1578.8	1154.0	836.2	518.4	338.4	267.9	224.3	206.9	215.6
35°	3082.4	2627.4	1653.3	1104.1	718.9	369.3	244.1	191.0	160.9	164.9	169.6
37.5°	3445.4	2949.2	1820.6	1039.9	561.9	271.1	168.0	142.7	142.7	155.3	166.4
40°	3787.8	3239.3	1970.4	952.7	393.9	187.1	130.0	132.4	130.0	137.9	135.5
42.5°	4111.2	3514.4	2087.7	848.9	257.6	129.2	118.1	122.9	118.9	120.5	113.3
45°	4417.1	3798.9	2152.7	695.9	171.2	112.5	108.6	116.5	115.7	114.1	107.0
47.5°	4700.1	4049.4	2185.2	501.7	118.1	101.5	102.2	107.8	110.2	108.6	104.6
50°	4977.5	4299.0	2155.9	300.4	106.2	92.7	98.3	98.3	103.0	94.3	91.1
52.5°	5243.0	4549.5	2063.1	182.3	97.5	86.4	91.1	89.6	91.9	83.2	81.6
55°	5492.7	4735.7	1880.0	143.5	91.9	82.4	83.2	84.8	80.8	71.3	74.5
57.5°	5756.6	4894.3	1624.8	130.0	89.6	76.9	78.5	77.7	71.3	62.6	62.6
60°	5973.8	5009.2	1368.8	118.1	88.0	75.3	69.7	68.2	58.7	53.9	53.1
62.5°	6123.6	5041.7	1119.1	105.4	83.2	69.7	62.6	57.9	49.1	44.4	42.8
65°	6135.5	4903.0	852.0	95.1	78.5	65.0	57.9	47.6	38.8	34.9	33.3
67.5°	5892.1	4517.8	600.8	87.2	70.5	60.2	50.7	38.0	30.9	27.7	26.9
70°	5383.3	4039.1	367.8	76.1	64.2	56.3	52.3	30.9	25.4	21.4	21.4
72.5°	4723.9	3498.5	215.6	65.0	53.9	45.2	34.9	26.2	21.4	16.6	16.6
75°	4048.6	2777.2	132.4	49.1	39.6	35.7	26.9	22.2	17.4	12.7	12.7
77.5°	2915.2	2050.4	103.0	31.7	24.6	25.4	19.8	17.4	14.3	10.3	10.3
80°	1788.9	1248.3	73.7	21.4	14.3	14.3	14.3	13.5	10.3	8.7	7.9
82.5°	906.7	570.7	36.5	12.7	8.7	8.7	8.7	9.5	7.9	6.3	6.3
85°	318.6	160.1	11.1	6.3	5.5	5.5	4.8	4.8	4.0	3.2	3.2
87.5°	0.8	1.6	1.6	2.4	3.2	3.2	2.4	1.6	0.8	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)