

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: P233473

Luminaire Tested: **VRDN-C028-D-UNV-T2-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P233473
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1710-389-10)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: VRDN-C028-D-UNV-T2-7030
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 930mA LEDS AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9085 lumens
Efficiency: N/A
Efficacy: 124.5 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

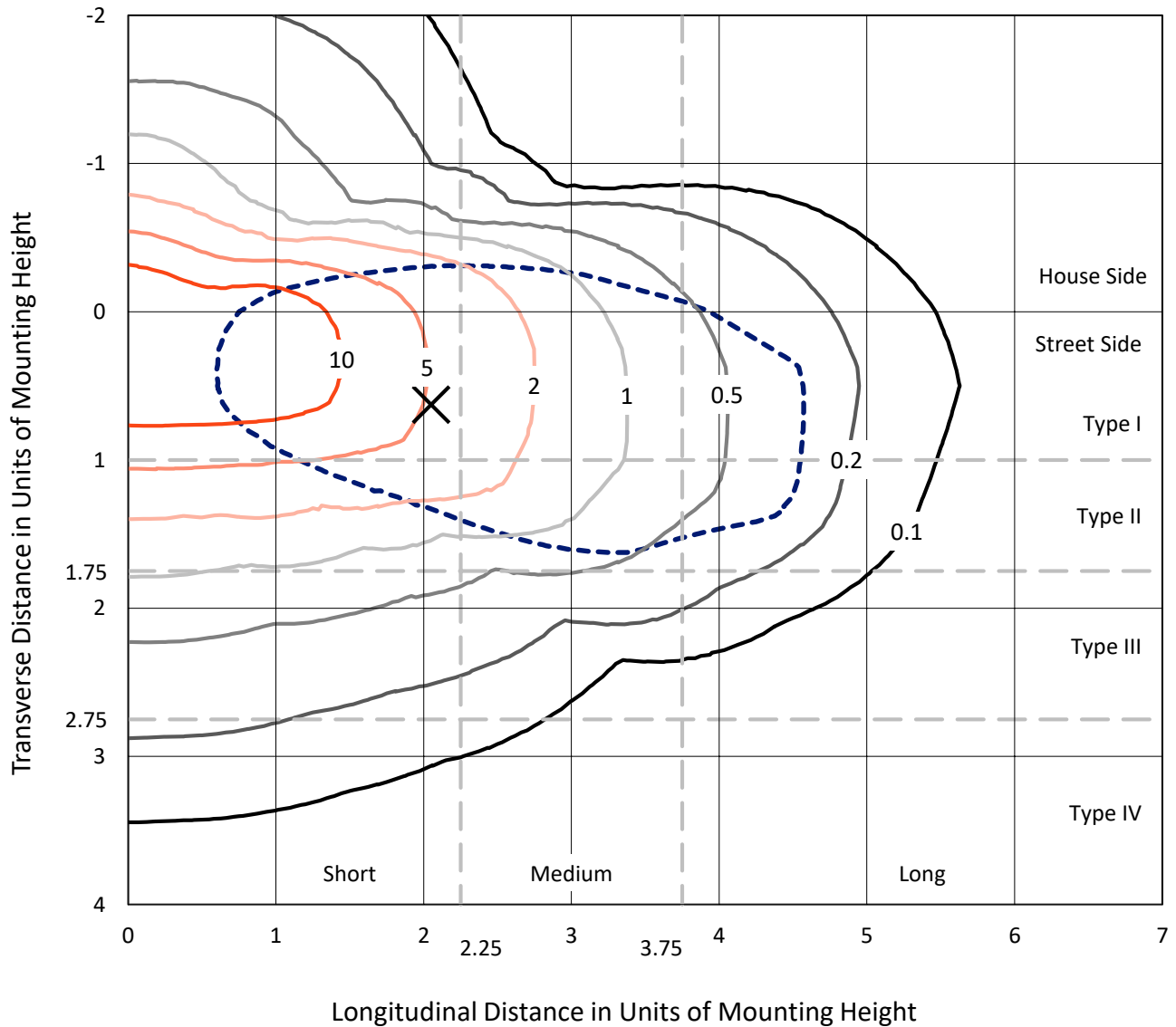
Input Watts (W): 73
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P233473
 CATALOG NUMBER: VRDN-C028-D-UNV-T2-7030

Iso-Footcandle Lines of Horizontal Illumination

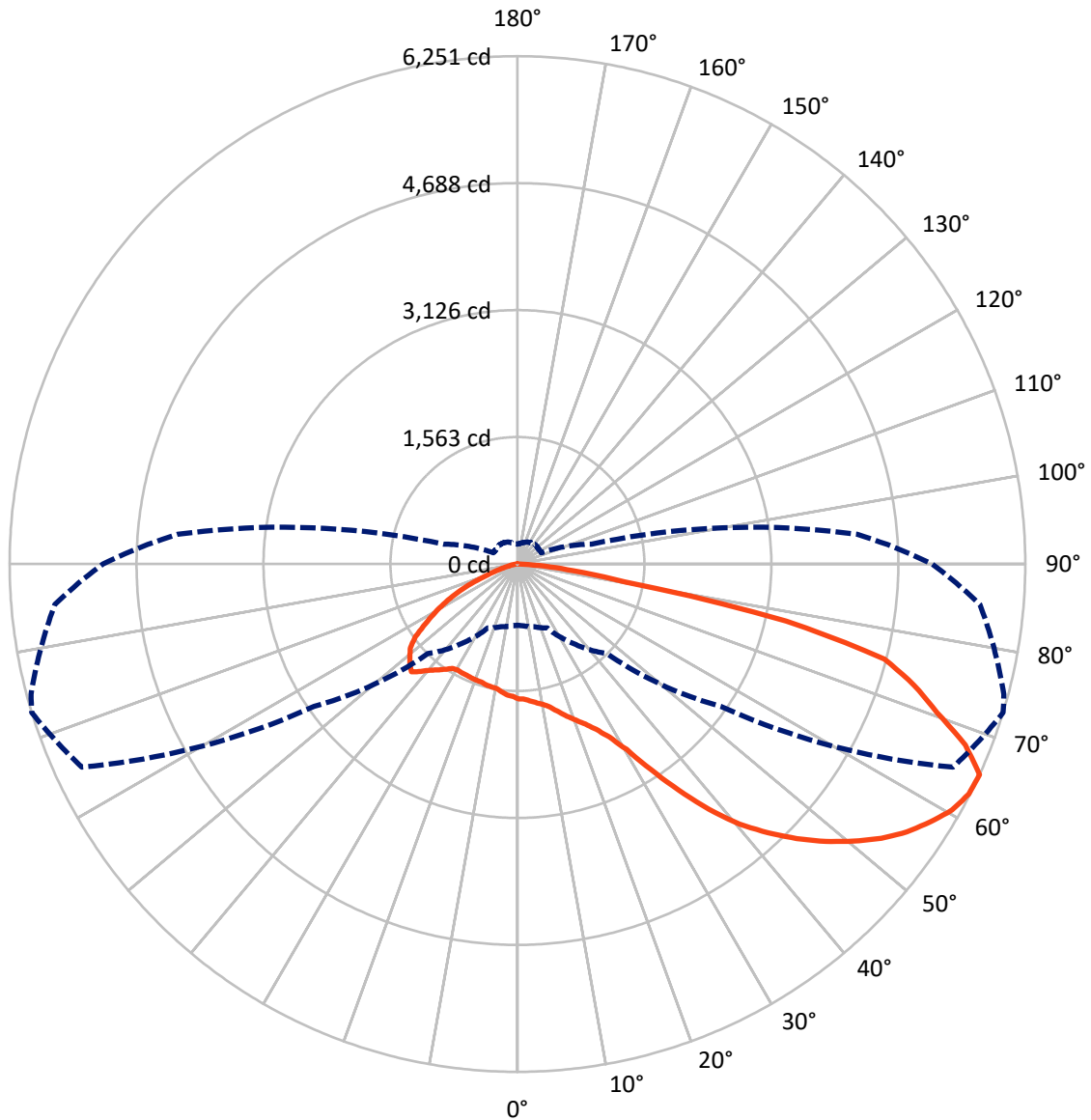
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 19.3 fc
 Type II - Short - Non-Cutoff

REPORT NUMBER: P233473
CATALOG NUMBER: VRDN-C028-D-UNV-T2-7030

Luminous Intensity Polar Plot



— Vertical Plane Through 73-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P233473

CATALOG NUMBER: VRDN-C028-D-UNV-T2-7030

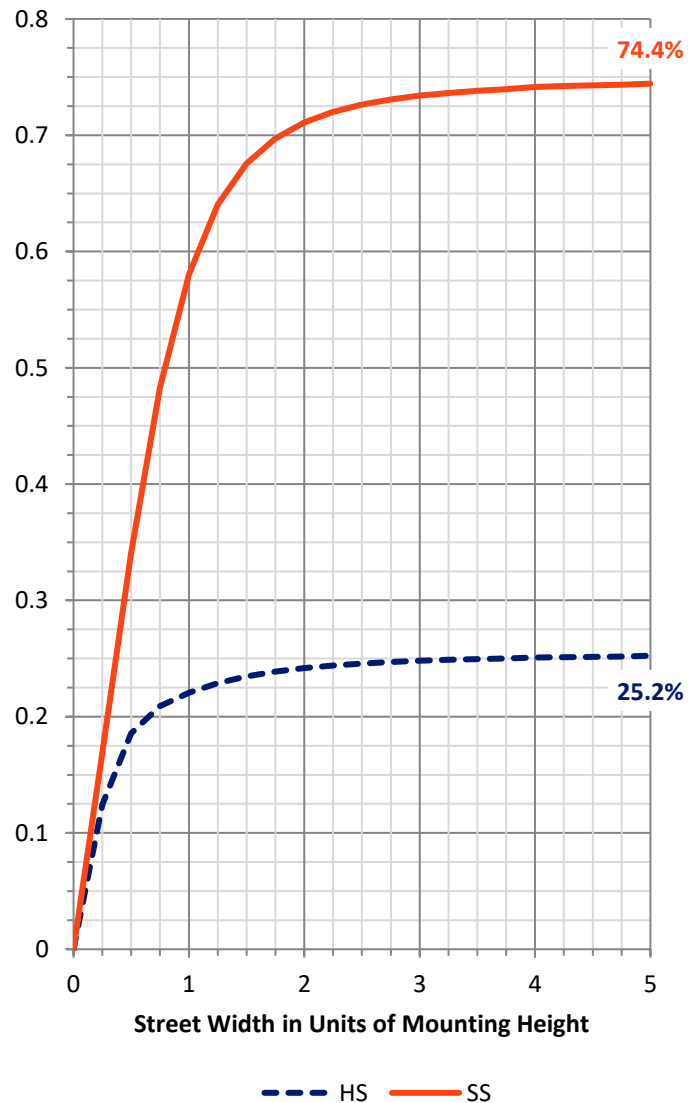
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2328.9	0.0	2328.9
	% Fixture	25.6	0.0	25.6
Street Side	Lumens	6756.1	0.0	6756.1
	% Fixture	74.4	0.0	74.4
Total	Lumens	9085.0	0.0	9085.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.5	1.7
10°-20°	479.3	5.3
20°-30°	804.0	8.8
30°-40°	1179.1	13.0
40°-50°	1593.5	17.5
50°-60°	1846.0	20.3
60°-70°	1803.2	19.8
70°-80°	1082.8	11.9
80°-90°	138.7	1.5
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°	9085.0	100.0
0°-180°	9085.0	100.0



REPORT NUMBER: P233473

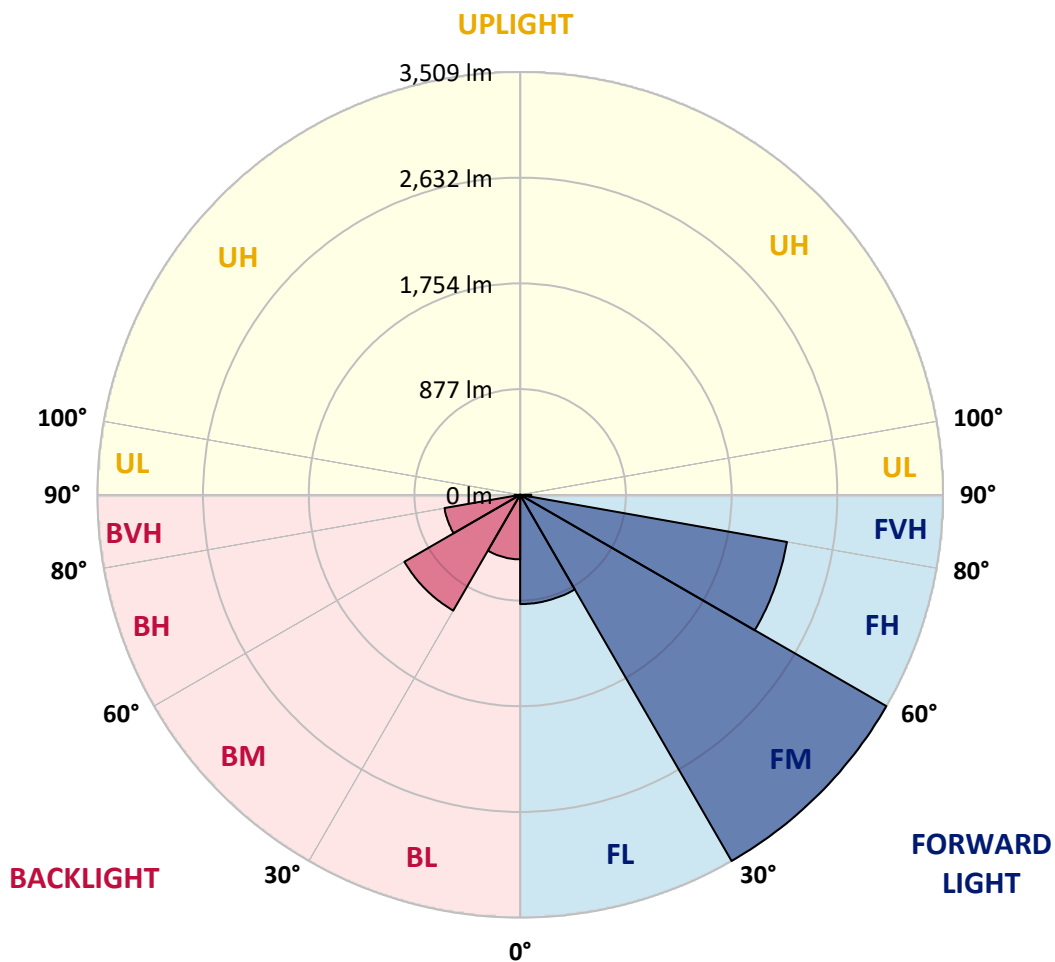
CATALOG NUMBER: VRDN-C028-D-UNV-T2-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	906.5	10.0			
FM	(30°-60°)	3508.9	38.6			
FH	(60°-80°)	2248.3	24.7			G2/5000
FVH	(80°-90°)	92.3	1.0			G1/100
BL	(0°-30°)	535.3	5.9	B2/1000		
BM	(30°-60°)	1109.6	12.2	B2/2500		
BH	(60°-80°)	637.6	7.0	B2/1000		G2/1000
BVH	(80°-90°)	46.3	0.5			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





REPORT NUMBER: P233473

CATALOG NUMBER: VRDN-C028-D-UNV-T2-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	73°	75°	85°
0°	1661.2	1661.2	1661.2	1661.2	1661.2	1661.2	1661.2	1661.2	1661.2	1661.2	1661.2
2.5°	1763.5	1770.1	1762.6	1741.2	1730.5	1723.0	1700.8	1681.0	1665.3	1663.7	1648.8
5°	1831.1	1841.0	1828.6	1801.4	1790.7	1775.0	1750.3	1723.0	1695.0	1689.2	1659.5
7.5°	1916.9	1918.5	1911.9	1884.7	1862.4	1829.4	1786.6	1757.7	1725.5	1716.4	1669.4
10°	1989.5	1988.6	1980.4	1954.0	1931.7	1902.9	1842.6	1795.6	1757.7	1746.1	1681.0
12.5°	2058.7	2057.1	2048.9	2021.6	1993.6	1969.7	1924.3	1860.8	1809.7	1794.8	1714.0
15°	2144.5	2140.4	2127.2	2090.9	2068.6	2040.6	2007.6	1944.1	1885.5	1864.9	1761.8
17.5°	2210.5	2209.7	2199.8	2169.3	2142.9	2112.4	2081.8	2032.4	1968.8	1945.7	1808.8
20°	2248.5	2245.2	2242.7	2218.8	2212.2	2195.7	2152.0	2114.0	2050.5	2026.6	1861.6
22.5°	2288.9	2289.7	2290.5	2278.2	2297.1	2283.1	2250.9	2204.7	2140.4	2113.2	1935.9
25°	2297.9	2299.6	2316.1	2343.3	2366.4	2392.0	2368.9	2323.5	2254.2	2225.4	2037.3
27.5°	2272.4	2279.0	2328.5	2374.7	2456.3	2489.3	2485.2	2482.7	2411.8	2382.9	2176.7
30°	2295.5	2295.5	2329.3	2408.5	2511.6	2598.2	2617.2	2669.9	2648.5	2627.9	2410.9
32.5°	2226.2	2238.6	2298.8	2409.3	2572.6	2698.8	2784.6	2931.4	3016.4	2999.0	2742.5
35°	2095.9	2112.4	2200.6	2369.7	2603.1	2817.6	2971.0	3253.9	3418.1	3438.7	3141.7
37.5°	1995.2	2009.3	2119.8	2307.8	2614.7	2928.9	3186.3	3616.8	3828.8	3818.1	3479.9
40°	1872.3	1897.1	2008.4	2234.4	2587.5	3023.8	3419.7	3950.1	4210.7	4161.2	3801.6
42.5°	1761.8	1783.3	1876.5	2117.3	2549.5	3077.4	3630.9	4293.2	4521.7	4482.1	4106.0
45°	1644.7	1663.7	1750.3	1977.1	2461.3	3103.8	3828.8	4621.5	4820.2	4775.7	4388.0
47.5°	1510.2	1535.8	1638.9	1845.1	2331.8	3087.3	3973.2	4906.8	5104.0	5071.0	4621.5
50°	1171.2	1197.6	1467.4	1721.4	2152.0	3018.8	4102.7	5192.2	5360.5	5329.2	4827.7
52.5°	1063.2	1074.7	1158.9	1579.5	1964.7	2883.6	4183.5	5427.3	5610.4	5579.1	5022.3
55°	997.2	1005.5	1052.5	1290.0	1805.5	2665.8	4193.4	5671.5	5820.7	5779.5	5229.4
57.5°	929.6	938.6	990.6	1112.7	1645.5	2325.2	4088.6	5878.5	5991.5	5946.9	5427.3
60°	872.7	877.6	928.7	1012.9	1464.9	1987.0	3818.9	6019.5	6149.0	6091.3	5621.1
62.5°	820.7	827.3	864.4	941.1	1313.1	1733.8	3442.8	6020.4	6235.6	6200.2	5719.3
65°	753.1	763.0	799.2	868.5	1190.2	1560.6	3053.5	5915.6	6251.3	6198.5	5714.3
67.5°	674.7	687.1	720.1	775.3	1026.9	1375.8	2510.7	5777.9	5945.3	5936.2	5478.4
70°	596.3	596.3	633.5	678.0	852.0	1177.8	1983.7	5287.1	5478.4	5492.5	5055.3
72.5°	503.1	504.8	533.7	572.4	686.2	966.7	1445.1	4520.0	5107.3	4937.4	4559.6
75°	422.3	420.7	450.4	482.5	558.4	761.3	942.8	3320.7	4667.7	4705.6	4012.7
77.5°	224.4	216.1	254.0	279.6	327.5	423.1	522.9	1665.3	3380.1	3454.3	3212.7
80°	63.5	64.3	168.3	188.1	215.3	209.5	242.5	635.1	1337.0	1506.9	1873.2
82.5°	37.9	43.7	95.7	112.2	84.1	54.4	92.4	353.0	692.0	775.3	929.6
85°	19.8	21.4	33.8	42.1	32.2	27.2	28.0	148.5	336.5	342.3	371.2
87.5°	9.1	9.1	12.4	13.2	8.2	4.9	3.3	2.5	2.5	1.6	1.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P233473

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1661.2	1661.2	1661.2	1661.2	1661.2	1661.2	1661.2	1661.2	1661.2	1661.2	1661.2
2.5°	1637.3	1645.5	1631.5	1620.8	1612.5	1607.6	1601.8	1587.8	1591.9	1597.7	1596.9
5°	1645.5	1649.6	1624.9	1591.1	1559.7	1537.5	1522.6	1500.3	1500.3	1509.4	1509.4
7.5°	1652.9	1647.2	1596.9	1539.9	1504.5	1486.3	1462.4	1438.5	1434.4	1441.0	1441.8
10°	1657.1	1632.3	1562.2	1509.4	1463.2	1426.1	1395.6	1368.4	1367.6	1376.6	1378.3
12.5°	1675.2	1627.4	1559.7	1487.1	1417.9	1378.3	1342.0	1311.5	1300.7	1301.6	1303.2
15°	1703.3	1647.2	1556.4	1456.6	1381.6	1328.8	1276.0	1237.2	1227.3	1240.5	1245.5
17.5°	1737.1	1679.3	1540.8	1428.6	1337.0	1273.5	1220.7	1186.1	1154.7	1140.7	1138.3
20°	1781.6	1706.6	1549.0	1387.3	1294.1	1209.2	1143.2	1101.1	1074.7	1073.1	1071.4
22.5°	1840.2	1737.1	1550.7	1360.1	1226.5	1138.3	1056.6	1032.7	985.7	968.3	975.8
25°	1917.7	1783.3	1546.5	1331.3	1174.5	1055.8	957.6	913.9	896.6	876.8	878.4
27.5°	2017.5	1856.7	1557.3	1293.3	1089.6	955.1	845.4	798.4	772.0	755.5	758.0
30°	2220.4	1968.0	1556.4	1257.0	1011.2	851.2	727.5	696.1	669.8	654.9	662.3
32.5°	2509.1	2209.7	1591.1	1208.4	922.1	711.8	628.5	593.0	570.8	554.3	558.4
35°	2866.2	2472.8	1680.2	1142.4	820.7	605.4	548.5	504.8	477.6	471.0	468.5
37.5°	3197.8	2705.4	1764.3	1098.7	704.4	546.9	475.1	431.4	407.5	415.7	415.7
40°	3493.9	3013.9	1859.1	1028.5	598.8	480.0	393.4	373.6	361.3	375.3	380.2
42.5°	3717.5	3310.0	1987.8	936.2	513.0	400.9	336.5	350.5	355.5	365.4	362.9
45°	3994.6	3479.1	2114.8	850.4	438.0	334.1	325.0	353.8	365.4	374.5	370.3
47.5°	4249.5	3610.2	2089.3	692.0	368.7	323.3	330.8	353.8	373.6	388.5	386.0
50°	4468.9	3774.4	2040.6	537.8	353.8	333.2	336.5	344.8	374.5	384.4	384.4
52.5°	4605.8	3936.9	1980.4	434.7	364.6	345.6	339.8	339.0	358.8	366.2	359.6
55°	4770.8	4105.1	1824.5	403.3	368.7	353.8	348.9	341.5	347.2	341.5	344.8
57.5°	4953.9	4270.9	1585.3	394.3	366.2	351.4	377.8	338.2	334.9	314.3	309.3
60°	5114.7	4336.1	1375.8	373.6	353.0	344.8	351.4	334.1	317.6	290.3	279.6
62.5°	5174.9	4330.3	1163.0	352.2	333.2	334.9	334.1	321.7	306.8	279.6	273.0
65°	5102.3	4198.3	942.8	326.6	317.6	324.2	315.9	297.8	273.0	250.7	245.0
67.5°	4856.5	3861.8	700.3	292.8	292.0	304.4	298.6	273.8	246.6	229.3	229.3
70°	4386.4	3447.7	453.7	243.3	261.5	282.9	282.9	256.5	221.1	206.2	210.3
72.5°	3871.7	2966.9	293.6	180.6	206.2	256.5	254.9	236.7	203.7	184.8	185.6
75°	3353.7	2354.0	189.7	124.5	133.6	218.6	226.0	193.0	158.4	135.3	131.1
77.5°	2549.5	1770.9	120.4	72.6	85.0	133.6	171.6	160.8	161.7	197.1	195.5
80°	1568.0	1067.3	87.4	35.5	42.1	87.4	138.6	153.4	215.3	141.9	130.3
82.5°	785.2	499.0	46.2	21.4	23.9	38.8	82.5	183.9	156.7	94.0	89.1
85°	293.6	134.4	14.0	10.7	13.2	19.8	33.8	168.3	99.8	75.1	73.4
87.5°	1.6	2.5	2.5	3.3	4.9	5.8	12.4	80.0	50.3	36.3	34.6
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)