

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: P233540

Luminaire Tested: **VRDN-C02-D-UNV-T3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P233540
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1710-389-14)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: VRDN-CO2-D-UNV-T3
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 1140mA LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10998 lumens
Efficiency: N/A
Efficacy: 122.2 lumens/watt
Luminous Opening: Rectangular (W 0.79' x L: 1.25' x H: 0')
IES Classification: Type III - Medium - Semi-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

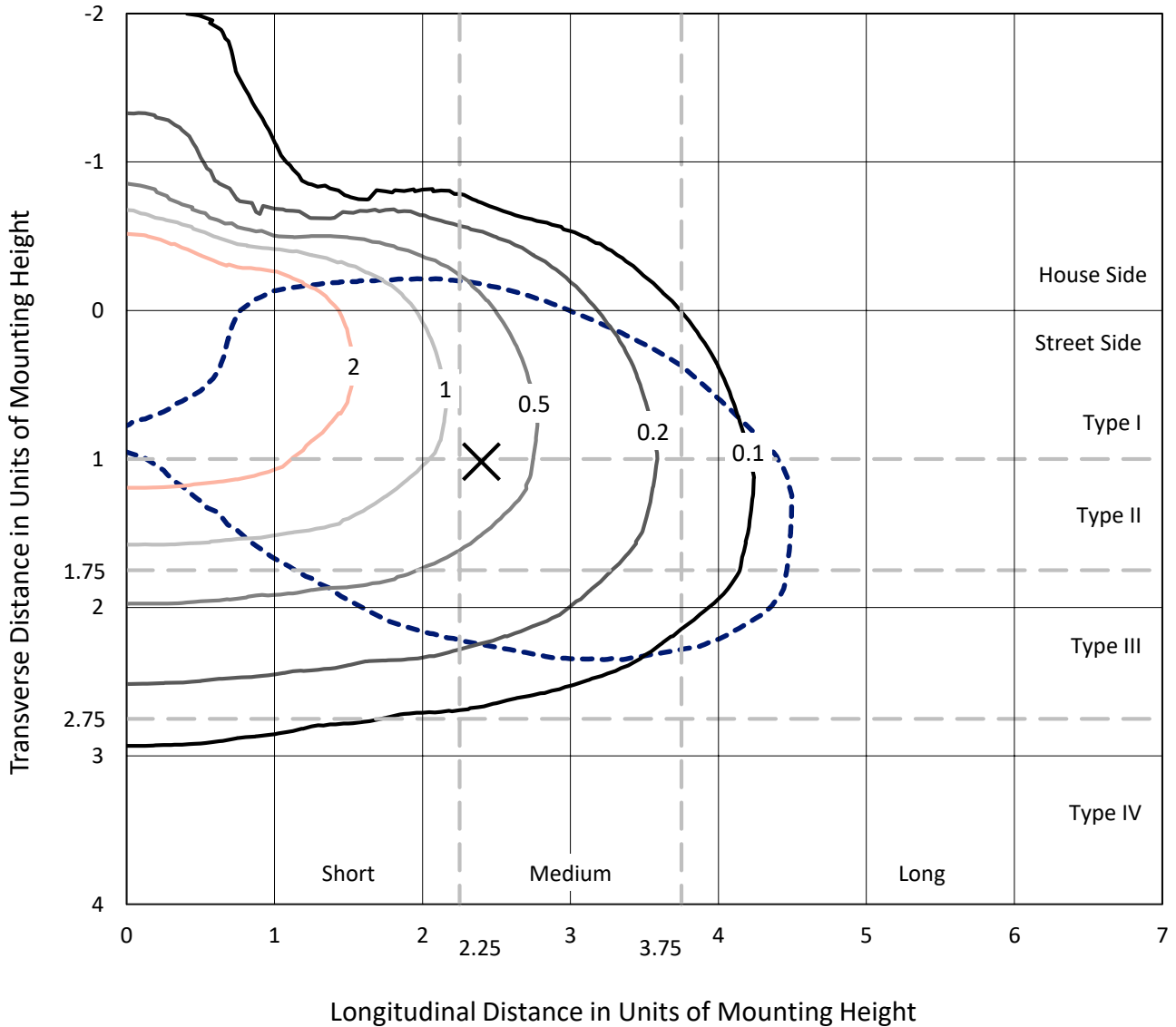


REPORT NUMBER: P233540

CATALOG NUMBER: VRDN-C02-D-UNV-T3

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

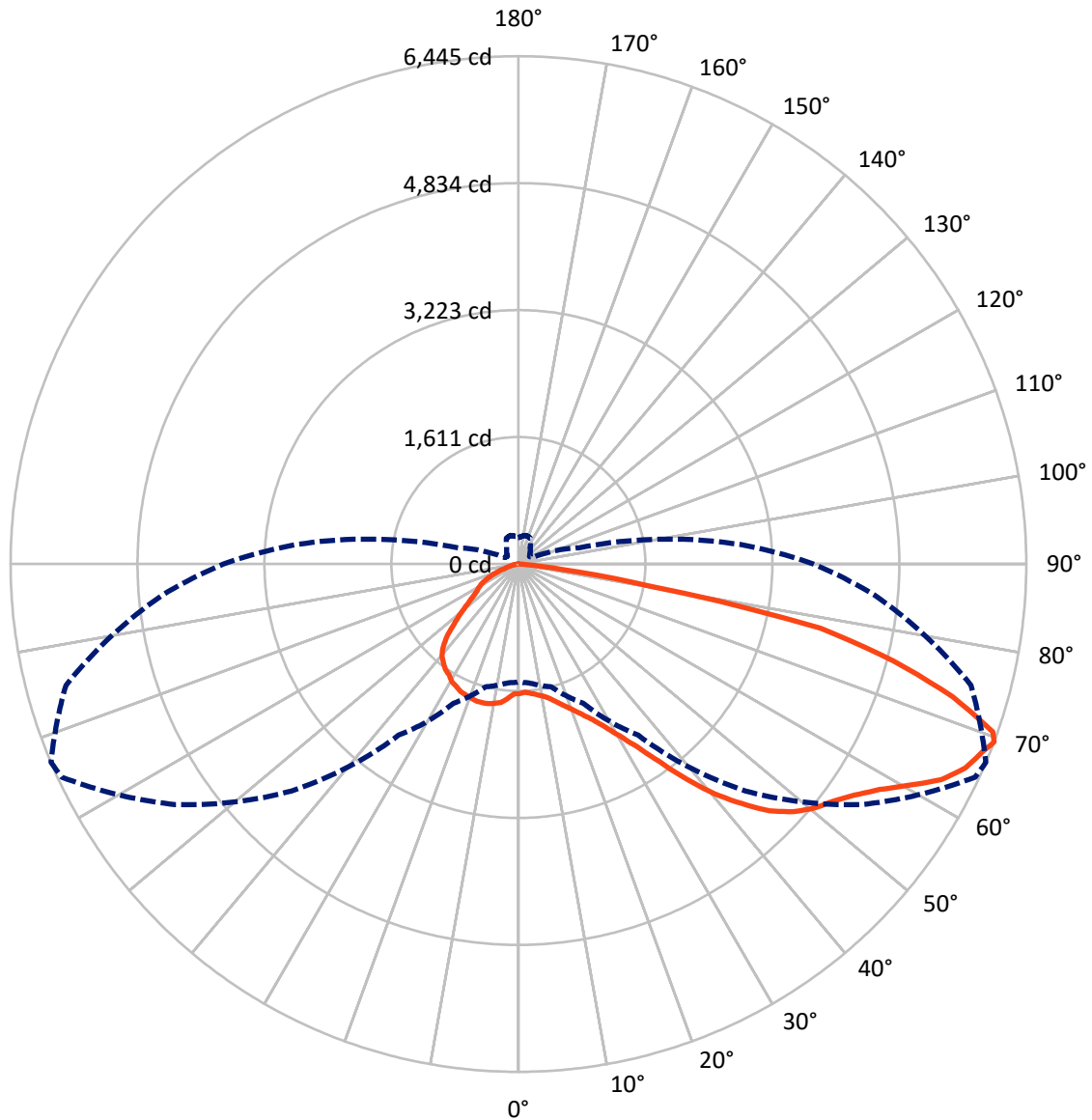


Based on 20 foot mounting height. Maximum calculated value = 4.8 fc
 Type III - Medium - Semi-Cutoff

REPORT NUMBER: P233540

CATALOG NUMBER: VRDN-C02-D-UNV-T3

Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P233540

CATALOG NUMBER: VRDN-C02-D-UNV-T3

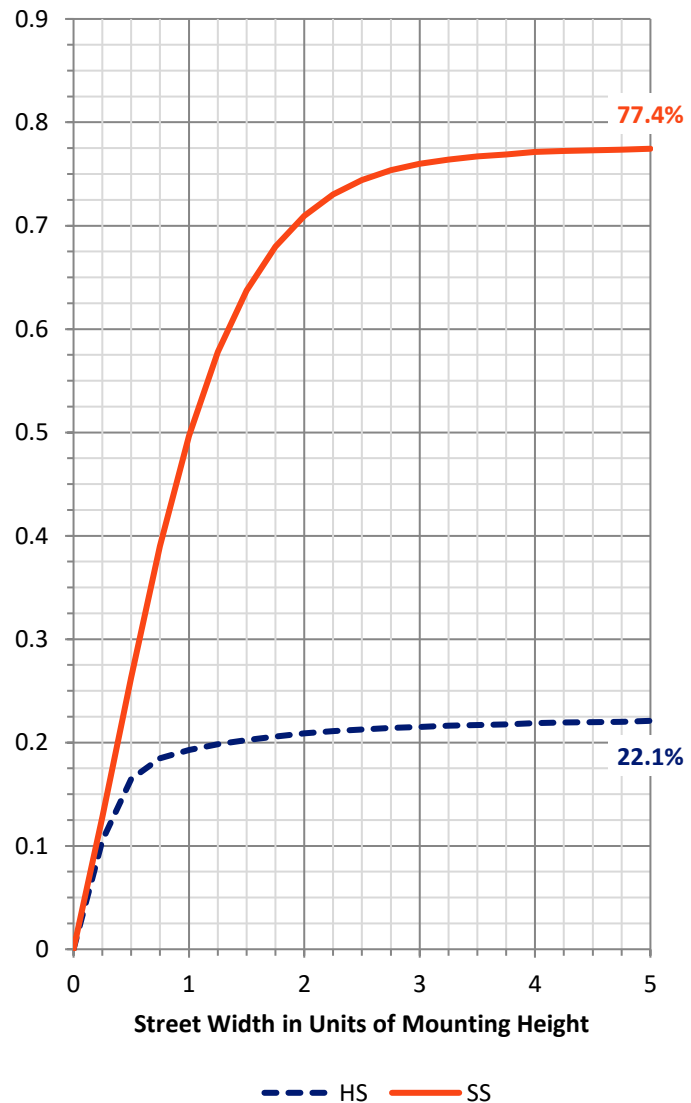
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2476.6	0.0	2476.6
	% Fixture	22.5	0.0	22.5
Street Side	Lumens	8521.4	0.0	8521.4
	% Fixture	77.5	0.0	77.5
Total	Lumens	10998.0	0.0	10998.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.6	1.5
10°-20°	531.0	4.8
20°-30°	914.8	8.3
30°-40°	1360.6	12.4
40°-50°	1873.9	17.0
50°-60°	2240.1	20.4
60°-70°	2364.0	21.5
70°-80°	1416.6	12.9
80°-90°	130.3	1.2
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°	10998.0	100.0
0°-180°	10998.0	100.0

Coefficient of Utilization



REPORT NUMBER: P233540

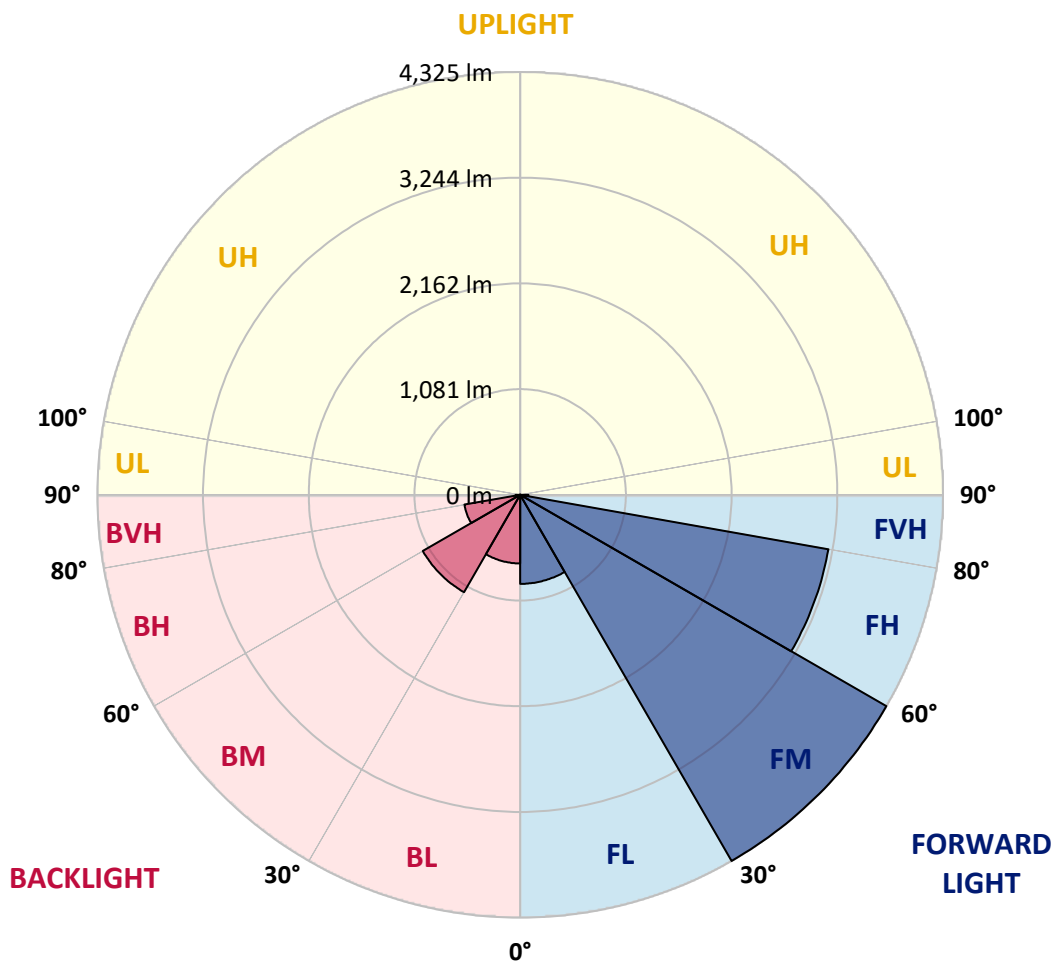
CATALOG NUMBER: VRDN-C02-D-UNV-T3

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	910.7	8.3			
FM (30°-60°)	4324.9	39.3			
FH (60°-80°)	3201.5	29.1			G2/5000
FVH (80°-90°)	84.3	0.8			G1/100
BL (0°-30°)	701.8	6.4	B2/1000		
BM (30°-60°)	1149.8	10.5	B2/2500		
BH (60°-80°)	579.1	5.3	B2/1000		G2/1000
BVH (80°-90°)	46.0	0.4			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 III Medium





REPORT NUMBER: P233540

CATALOG NUMBER: VRDN-C02-D-UNV-T3

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	1645.1	1645.1	1645.1	1645.1	1645.1	1645.1	1645.1	1645.1	1645.1	1645.1	1645.1
2.5°	1672.1	1671.1	1666.1	1648.1	1646.1	1644.1	1632.1	1633.1	1630.1	1633.1	1634.1
5°	1718.1	1714.1	1709.1	1690.1	1683.1	1674.1	1656.1	1655.1	1648.1	1650.1	1652.1
7.5°	1775.1	1771.1	1767.1	1745.1	1738.1	1722.1	1694.1	1680.1	1674.1	1676.1	1679.1
10°	1852.1	1845.1	1839.1	1807.1	1796.1	1769.1	1735.1	1711.1	1703.1	1706.1	1714.1
12.5°	1940.1	1931.1	1921.1	1888.1	1873.1	1831.1	1791.1	1760.1	1748.1	1755.1	1761.1
15°	2031.1	2026.1	2022.1	1983.1	1962.1	1916.1	1866.1	1827.1	1816.1	1822.1	1825.1
17.5°	2151.1	2148.1	2141.1	2101.1	2061.1	2008.1	1943.1	1902.1	1891.1	1894.1	1887.1
20°	2282.1	2274.1	2270.1	2225.1	2183.1	2110.1	2035.1	1977.1	1974.1	1975.1	1953.1
22.5°	2429.1	2420.1	2412.1	2371.1	2319.1	2234.1	2136.1	2071.1	2073.1	2075.1	2026.1
25°	2579.1	2572.1	2565.1	2526.1	2474.1	2381.1	2263.1	2190.1	2189.1	2190.1	2122.1
27.5°	2736.1	2728.1	2727.1	2695.1	2643.1	2548.1	2412.1	2338.1	2338.1	2334.1	2231.1
30°	2876.1	2884.1	2884.1	2866.1	2817.1	2722.1	2594.1	2520.1	2530.1	2522.1	2391.1
32.5°	3029.1	3027.1	3041.1	3027.1	2987.1	2899.1	2792.1	2745.1	2762.1	2788.1	2657.1
35°	3118.1	3132.1	3167.1	3187.1	3168.1	3096.1	3018.1	3054.1	3077.1	3194.1	3037.1
37.5°	3221.1	3233.1	3281.1	3330.2	3338.2	3299.1	3299.1	3417.2	3462.2	3615.2	3432.2
40°	3292.1	3304.1	3356.2	3413.2	3491.2	3518.2	3588.2	3771.2	3835.2	3938.2	3726.2
42.5°	3250.1	3256.1	3368.2	3507.2	3622.2	3752.2	3863.2	4095.2	4156.2	4228.2	3968.2
45°	3176.1	3187.1	3311.1	3535.2	3733.2	3991.2	4131.2	4400.2	4470.2	4463.2	4154.2
47.5°	3094.1	3111.1	3249.1	3499.2	3828.2	4198.2	4376.2	4656.2	4696.2	4646.2	4283.2
50°	3003.1	3032.1	3179.1	3463.2	3897.2	4379.2	4558.2	4848.2	4869.2	4767.2	4396.2
52.5°	2899.1	2918.1	3081.1	3394.2	3945.2	4499.2	4703.2	4991.2	5000.2	4917.2	4515.2
55°	2755.1	2772.1	2953.1	3302.1	3952.2	4570.2	4796.2	5144.2	5174.2	5093.2	4623.2
57.5°	2600.1	2621.1	2807.1	3169.1	3888.2	4599.2	4908.2	5341.2	5399.2	5283.2	4710.2
60°	2420.1	2447.1	2635.1	3007.1	3762.2	4644.2	5117.2	5628.3	5700.3	5498.2	4793.2
62.5°	2233.1	2248.1	2421.1	2783.1	3566.2	4667.2	5307.2	5956.3	6025.3	5701.3	4832.2
65°	1970.1	1994.1	2148.1	2514.1	3290.1	4568.2	5396.2	6185.3	6235.3	5866.3	4794.2
67.5°	1691.1	1691.1	1822.1	2192.1	2922.1	4306.2	5360.2	6295.3	6355.3	5982.3	4674.2
69°	1498.1	1513.1	1613.1	1950.1	2652.1	4073.2	5321.2	6396.3	6445.3	5945.3	4536.2
70°	1350.1	1363.1	1464.1	1774.1	2451.1	3889.2	5237.2	6351.3	6387.3	5831.3	4391.2
72.5°	993.0	1004.0	1074.0	1236.1	1843.1	3138.1	4722.2	5742.3	5764.3	5244.2	3874.2
75°	677.0	683.0	736.0	835.0	1075.0	2194.1	3858.2	4850.2	4915.2	4548.2	3172.1
77.5°	234.0	252.0	284.0	384.0	460.0	862.0	2615.1	3822.2	3919.2	3522.2	2219.1
80°	80.0	79.0	152.0	197.0	242.0	396.0	827.0	1602.1	1693.1	1452.1	799.0
82.5°	60.0	62.0	101.0	109.0	74.0	146.0	322.0	490.0	537.0	469.0	331.0
85°	38.0	37.0	45.0	47.0	34.0	62.0	78.0	79.0	82.0	71.0	72.0
87.5°	21.0	21.0	20.0	17.0	9.0	8.0	7.0	7.0	6.0	6.0	6.0
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: P233540

CATALOG NUMBER: VRDN-C02-D-UNV-T3

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1645.1	1645.1	1645.1	1645.1	1645.1	1645.1	1645.1	1645.1	1645.1	1645.1	1645.1
2.5°	1629.1	1643.1	1646.1	1650.1	1660.1	1673.1	1691.1	1691.1	1698.1	1719.1	1726.1
5°	1652.1	1669.1	1691.1	1714.1	1741.1	1770.1	1799.1	1809.1	1823.1	1851.1	1857.1
7.5°	1687.1	1706.1	1744.1	1775.1	1798.1	1827.1	1851.1	1855.1	1873.1	1899.1	1904.1
10°	1723.1	1740.1	1778.1	1794.1	1825.1	1857.1	1869.1	1875.1	1890.1	1910.1	1907.1
12.5°	1772.1	1777.1	1804.1	1815.1	1830.1	1850.1	1856.1	1856.1	1865.1	1897.1	1898.1
15°	1820.1	1820.1	1824.1	1818.1	1820.1	1830.1	1831.1	1818.1	1828.1	1844.1	1838.1
17.5°	1871.1	1857.1	1839.1	1813.1	1790.1	1789.1	1768.1	1737.1	1728.1	1751.1	1750.1
20°	1919.1	1895.1	1852.1	1793.1	1761.1	1718.1	1665.1	1647.1	1646.1	1650.1	1647.1
22.5°	1982.1	1933.1	1855.1	1774.1	1686.1	1618.1	1574.1	1513.1	1511.1	1502.1	1488.1
25°	2057.1	1987.1	1868.1	1753.1	1625.1	1537.1	1431.1	1366.1	1329.1	1337.1	1313.1
27.5°	2154.1	2069.1	1873.1	1707.1	1541.1	1392.1	1264.1	1180.1	1148.1	1134.1	1118.1
30°	2287.1	2156.1	1909.1	1668.1	1437.1	1240.1	1083.0	961.0	915.0	927.0	929.0
32.5°	2500.1	2321.1	1928.1	1591.1	1317.1	1074.0	870.0	738.0	711.0	745.0	754.0
35°	2871.1	2577.1	1973.1	1545.1	1180.1	880.0	647.0	593.0	599.0	628.0	630.0
37.5°	3236.1	2901.1	2112.1	1445.1	1016.0	652.0	502.0	473.0	502.0	539.0	544.0
40°	3492.2	3154.1	2235.1	1346.1	786.0	472.0	383.0	348.0	390.0	449.0	460.0
42.5°	3719.2	3355.2	2322.1	1209.1	538.0	337.0	275.0	284.0	346.0	389.0	399.0
45°	3882.2	3493.2	2382.1	1031.0	343.0	255.0	246.0	275.0	334.0	368.0	371.0
47.5°	3985.2	3574.2	2338.1	812.0	258.0	241.0	242.0	279.0	338.0	376.0	375.0
50°	4078.2	3617.2	2195.1	644.0	245.0	231.0	247.0	290.0	351.0	386.0	384.0
52.5°	4177.2	3659.2	2021.1	505.0	235.0	226.0	253.0	297.0	351.0	373.0	370.0
55°	4262.2	3696.2	1890.1	406.0	228.0	225.0	259.0	308.0	349.0	358.0	352.0
57.5°	4306.2	3633.2	1748.1	341.0	221.0	225.0	263.0	306.0	361.0	390.0	384.0
60°	4282.2	3574.2	1633.1	317.0	211.0	224.0	265.0	328.0	443.0	470.0	468.0
62.5°	4238.2	3509.2	1472.1	285.0	200.0	226.0	264.0	348.0	510.0	501.0	476.0
65°	4148.2	3379.2	1252.1	248.0	189.0	230.0	264.0	392.0	445.0	435.0	424.0
67.5°	3956.2	3098.1	1002.0	213.0	177.0	218.0	260.0	373.0	383.0	357.0	344.0
69°	3741.2	2830.1	793.0	194.0	170.0	212.0	259.0	360.0	377.0	349.0	334.0
70°	3573.2	2621.1	641.0	180.0	163.0	210.0	258.0	351.0	374.0	343.0	327.0
72.5°	2976.1	2118.1	336.0	145.0	139.0	191.0	249.0	343.0	375.0	329.0	306.0
75°	2338.1	1507.1	223.0	111.0	107.0	167.0	228.0	330.0	353.0	296.0	261.0
77.5°	1442.1	660.0	154.0	77.0	78.0	130.0	196.0	295.0	356.0	299.0	254.0
80°	419.0	255.0	98.0	52.0	48.0	77.0	154.0	254.0	338.0	307.0	277.0
82.5°	242.0	166.0	66.0	33.0	29.0	35.0	97.0	197.0	298.0	281.0	287.0
85°	55.0	46.0	24.0	16.0	16.0	20.0	33.0	114.0	206.0	241.0	272.0
87.5°	6.0	6.0	6.0	6.0	6.0	5.0	6.0	31.0	90.0	128.0	149.0
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)