

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: P233572

Luminaire Tested: **VRDN-C016-D-UNV-T4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P233572
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1710-389-15)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: VRDN-C016-D-UNV-T4-7030
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 950mA LED AND TYPE IV OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4669 lumens
Efficiency: N/A
Efficacy: 119.7 lumens/watt
Luminous Opening: Rectangular (W 0.79' x L: 1.25' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

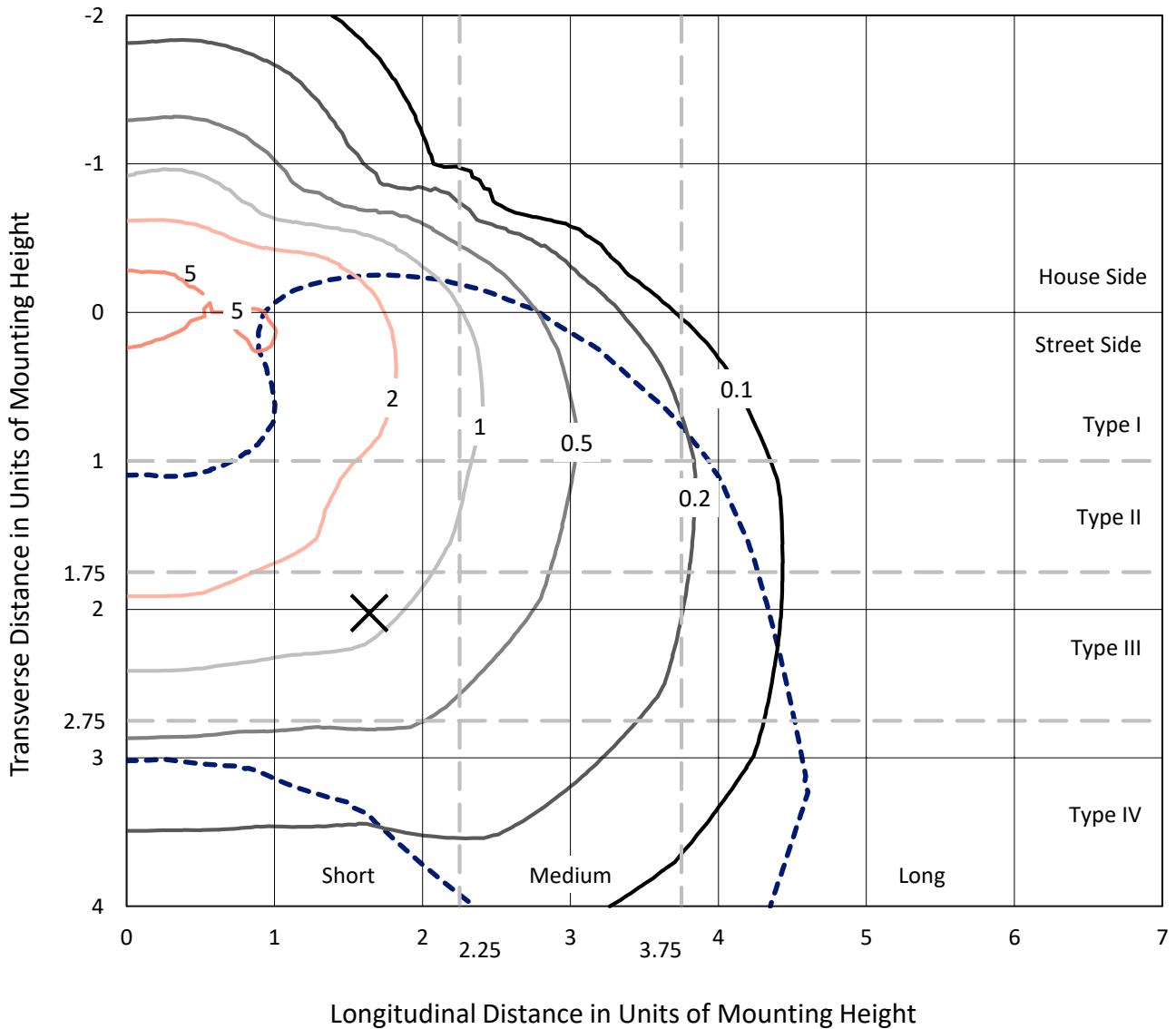
Input Watts (W): 39
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

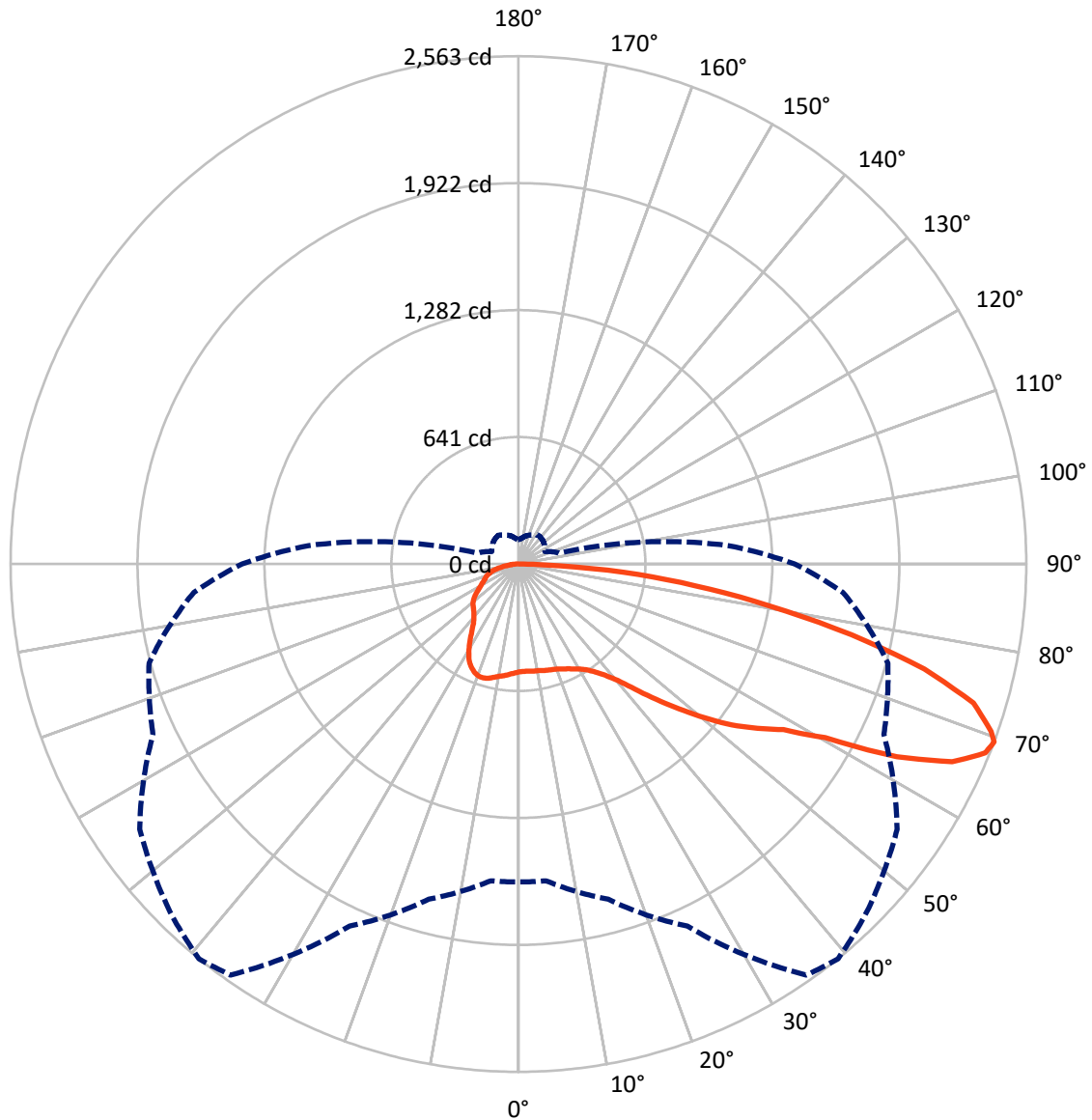
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.6 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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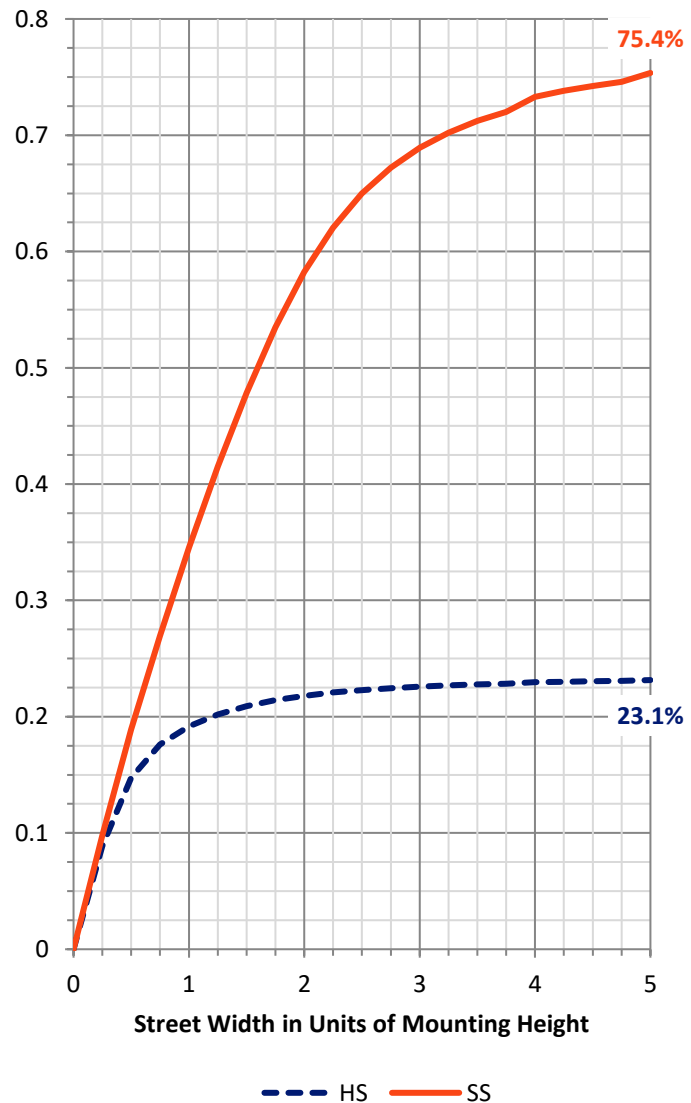
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1094.5	0.0	1094.5
	% Fixture	23.4	0.0	23.4
Street Side	Lumens	3574.5	0.0	3574.5
	% Fixture	76.6	0.0	76.6
Total	Lumens	4669.0	0.0	4669.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.8	1.1
10°-20°	163.4	3.5
20°-30°	275.0	5.9
30°-40°	398.4	8.5
40°-50°	644.0	13.8
50°-60°	942.8	20.2
60°-70°	1180.0	25.3
70°-80°	843.6	18.1
80°-90°	169.1	3.6
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°	4669.0	100.0
0°-180°	4669.0	100.0



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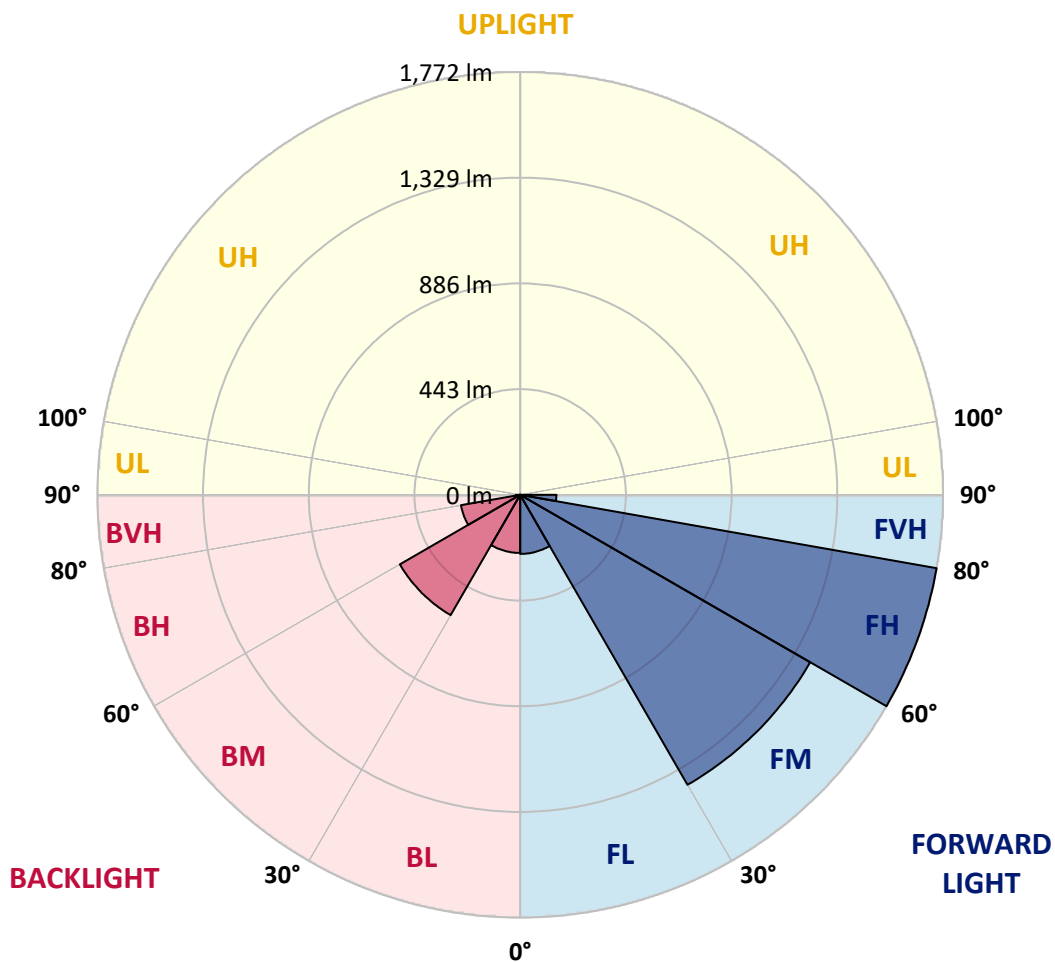
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	247.7	5.3			
FM	(30°-60°)	1403.1	30.1			
FH	(60°-80°)	1771.9	37.9			G1/1800
FVH	(80°-90°)	151.9	3.3			G2/225
BL	(0°-30°)	243.5	5.2	B1/500		
BM	(30°-60°)	582.0	12.5	B1/1000		
BH	(60°-80°)	251.7	5.4	B1/500		G1/500
BVH	(80°-90°)	17.3	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8
2.5°	553.3	552.5	550.7	543.8	543.0	542.6	543.4	540.8	540.4	541.3	540.4
5°	553.7	552.9	550.7	544.7	543.8	543.0	543.4	541.3	541.7	543.8	543.8
7.5°	554.6	553.7	551.6	545.1	546.9	546.0	547.7	544.7	544.7	546.4	546.9
10°	552.5	552.0	550.7	546.0	548.6	546.9	548.6	549.0	550.7	552.0	551.6
12.5°	546.9	546.9	546.9	544.7	552.0	551.6	554.6	557.6	561.9	564.1	565.4
15°	543.4	543.0	546.0	545.6	554.6	555.9	561.1	568.8	575.3	580.9	582.6
17.5°	546.9	546.9	550.7	549.9	558.9	559.8	565.4	576.5	587.3	598.1	602.8
20°	550.7	551.2	555.9	557.2	565.8	565.4	571.0	584.7	599.4	615.3	623.4
22.5°	562.8	562.3	566.2	563.6	573.5	575.3	580.0	592.0	612.7	632.9	646.2
25°	571.8	573.1	577.0	575.3	583.4	585.6	593.3	604.9	629.5	653.6	677.2
27.5°	580.4	583.0	586.0	585.6	596.8	599.4	605.4	623.4	651.8	680.7	713.8
30°	593.3	592.5	594.6	598.5	613.1	614.8	622.2	644.1	678.5	716.0	760.3
32.5°	610.5	609.7	611.8	615.3	632.9	637.2	647.1	670.8	714.2	759.4	813.6
35°	637.6	639.8	641.5	645.8	663.0	669.1	682.4	712.5	762.8	835.1	912.6
37.5°	731.9	727.1	717.7	700.5	705.2	712.1	731.0	774.0	847.2	969.8	1040.8
40°	879.0	873.4	843.7	793.4	770.6	772.3	790.8	849.3	949.2	1128.1	1193.5
42.5°	1017.6	1010.7	975.4	912.6	867.4	862.2	864.0	931.5	1061.0	1286.5	1321.3
45°	1148.4	1151.8	1098.0	1049.8	998.2	974.5	967.2	1017.6	1185.4	1423.7	1434.5
47.5°	1273.6	1276.1	1215.5	1169.0	1119.1	1091.6	1077.4	1116.5	1299.8	1534.7	1524.8
50°	1401.4	1408.2	1325.2	1285.6	1239.6	1219.8	1206.0	1231.8	1426.3	1641.0	1610.5
52.5°	1581.6	1552.8	1444.0	1388.0	1355.3	1349.3	1335.1	1356.2	1560.6	1734.8	1671.1
55°	1782.1	1720.6	1606.2	1508.5	1463.3	1463.3	1450.8	1475.4	1699.1	1804.9	1720.6
57.5°	1847.1	1853.1	1813.5	1707.3	1585.9	1576.5	1564.4	1598.0	1817.8	1867.8	1739.1
60°	1960.7	1977.5	2008.0	1919.4	1859.6	1779.1	1706.0	1724.0	1920.2	1919.4	1758.9
62.5°	2017.1	2033.0	2128.5	2080.7	2137.1	2142.7	2005.9	1866.5	1996.0	1945.2	1768.4
65°	1963.7	1974.9	2102.2	2165.1	2328.6	2406.4	2338.9	2057.9	2036.0	1934.4	1733.1
67.5°	1788.6	1809.7	1915.1	2106.5	2499.4	2542.8	2479.6	2320.8	2053.2	1937.9	1704.7
69°	1604.4	1604.9	1751.2	2016.6	2532.9	2563.1	2485.6	2333.3	2035.1	1929.7	1644.0
70°	1500.7	1511.5	1619.9	1938.7	2520.5	2530.4	2471.0	2332.9	2022.6	1927.1	1586.4
72.5°	1171.2	1165.6	1273.6	1621.2	2379.3	2401.3	2335.9	2267.0	2012.3	1816.1	1342.0
75°	818.8	836.0	941.8	1228.4	2050.2	2116.0	2116.0	2178.0	1852.3	1551.9	970.2
77.5°	609.2	611.8	696.6	938.4	1649.6	1718.0	1780.8	1832.9	1447.8	1063.2	433.7
80°	412.6	416.5	493.9	692.3	1222.4	1285.2	1384.6	1261.1	861.4	367.9	49.5
82.5°	259.9	265.0	326.6	486.2	871.3	899.7	930.2	712.1	287.0	42.6	31.4
85°	154.5	155.3	197.1	310.6	531.4	533.1	500.4	327.9	77.0	25.4	19.8
87.5°	64.5	68.0	86.1	137.7	155.8	123.1	76.6	26.2	11.6	10.3	6.9
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°	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8
2.5°	537.8	542.6	541.7	543.0	544.7	548.2	552.0	550.3	552.5	557.2	557.2
5°	542.6	546.4	547.7	550.3	552.5	555.9	558.5	557.6	562.3	569.2	569.2
7.5°	546.4	549.4	553.7	556.8	558.9	565.8	568.4	566.7	570.1	578.3	578.7
10°	552.0	555.0	561.5	564.5	568.8	572.2	575.7	575.3	578.7	586.0	587.3
12.5°	565.8	567.9	577.0	581.3	581.3	585.6	583.0	578.7	580.4	584.7	585.6
15°	583.9	586.9	598.5	600.6	598.5	599.4	593.3	579.6	572.7	574.0	574.4
17.5°	604.5	609.7	623.0	620.0	617.4	611.0	595.5	574.8	554.2	546.4	547.7
20°	626.5	632.9	648.4	641.9	632.5	615.7	590.7	555.5	523.6	505.1	504.3
22.5°	651.8	660.0	674.6	663.5	642.4	613.1	574.8	531.8	491.4	462.5	460.8
25°	686.7	695.7	700.9	678.5	644.1	603.7	552.0	499.5	448.8	414.3	411.8
27.5°	726.3	731.0	720.7	687.1	635.9	583.4	523.6	458.7	402.7	374.3	370.5
30°	770.2	766.3	734.0	682.8	614.8	551.6	479.3	406.6	361.8	339.0	335.6
32.5°	820.9	808.9	744.3	670.8	586.9	509.9	431.1	373.5	337.8	314.9	313.2
35°	904.4	870.0	761.1	652.3	549.9	460.8	386.8	345.1	317.1	288.7	284.4
37.5°	1025.3	960.3	785.7	635.1	509.9	413.5	353.2	322.3	297.7	265.9	259.9
40°	1150.9	1066.6	826.1	616.1	472.4	378.6	334.7	312.8	288.7	258.6	250.4
42.5°	1265.8	1167.7	873.4	592.5	433.3	350.7	325.7	310.2	286.1	257.7	251.3
45°	1369.9	1262.8	922.0	565.4	390.2	328.3	318.4	305.5	281.0	253.9	248.7
47.5°	1457.7	1343.7	971.1	534.0	348.9	314.5	310.6	296.9	274.1	247.8	243.5
50°	1530.4	1401.8	999.1	500.8	314.9	304.2	299.5	282.3	259.0	234.5	231.9
52.5°	1584.2	1437.9	1024.4	483.2	288.3	287.4	284.4	267.6	245.2	219.9	214.7
55°	1621.6	1467.6	1013.3	469.4	259.9	266.3	264.6	254.3	235.4	205.7	201.4
57.5°	1623.8	1470.2	989.2	387.7	231.9	240.9	244.0	245.7	224.6	198.3	193.2
60°	1621.6	1451.3	944.4	284.4	204.8	215.6	226.7	226.7	212.1	186.3	182.4
62.5°	1611.8	1413.8	840.3	202.7	183.3	197.5	212.1	205.7	193.2	172.5	168.7
65°	1566.6	1351.4	657.4	165.2	174.3	187.2	194.0	185.0	169.1	147.6	145.9
67.5°	1484.4	1208.6	380.3	151.5	166.5	178.1	183.7	170.0	154.9	134.2	133.4
69°	1394.0	1064.0	214.3	148.0	161.8	172.1	176.8	161.8	147.1	127.4	123.5
70°	1313.2	935.0	139.4	145.0	157.0	168.2	171.7	156.2	142.4	122.2	119.6
72.5°	994.8	563.2	93.8	132.5	144.1	152.7	157.9	143.3	127.8	107.6	102.4
75°	543.4	153.2	82.6	113.6	128.2	139.8	141.1	122.6	100.3	79.6	77.4
77.5°	105.8	52.5	71.0	93.8	102.0	115.7	114.9	102.4	86.9	67.6	65.0
80°	40.0	37.9	59.4	67.1	71.9	86.5	91.6	82.6	72.3	46.0	39.6
82.5°	27.1	28.0	44.3	39.6	43.9	51.2	64.5	62.8	57.2	31.4	28.0
85°	18.9	21.9	24.5	16.8	21.5	32.3	42.6	41.3	35.3	21.9	19.8
87.5°	5.6	6.0	6.9	8.6	13.3	24.1	34.9	28.8	19.4	16.3	14.2
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)