

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: P233780

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P233780
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1710-389-34)
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-HSS
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 950mA LED AND TYPE IV OPTIC WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4830 lumens
Efficiency: N/A
Efficacy: 123.8 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

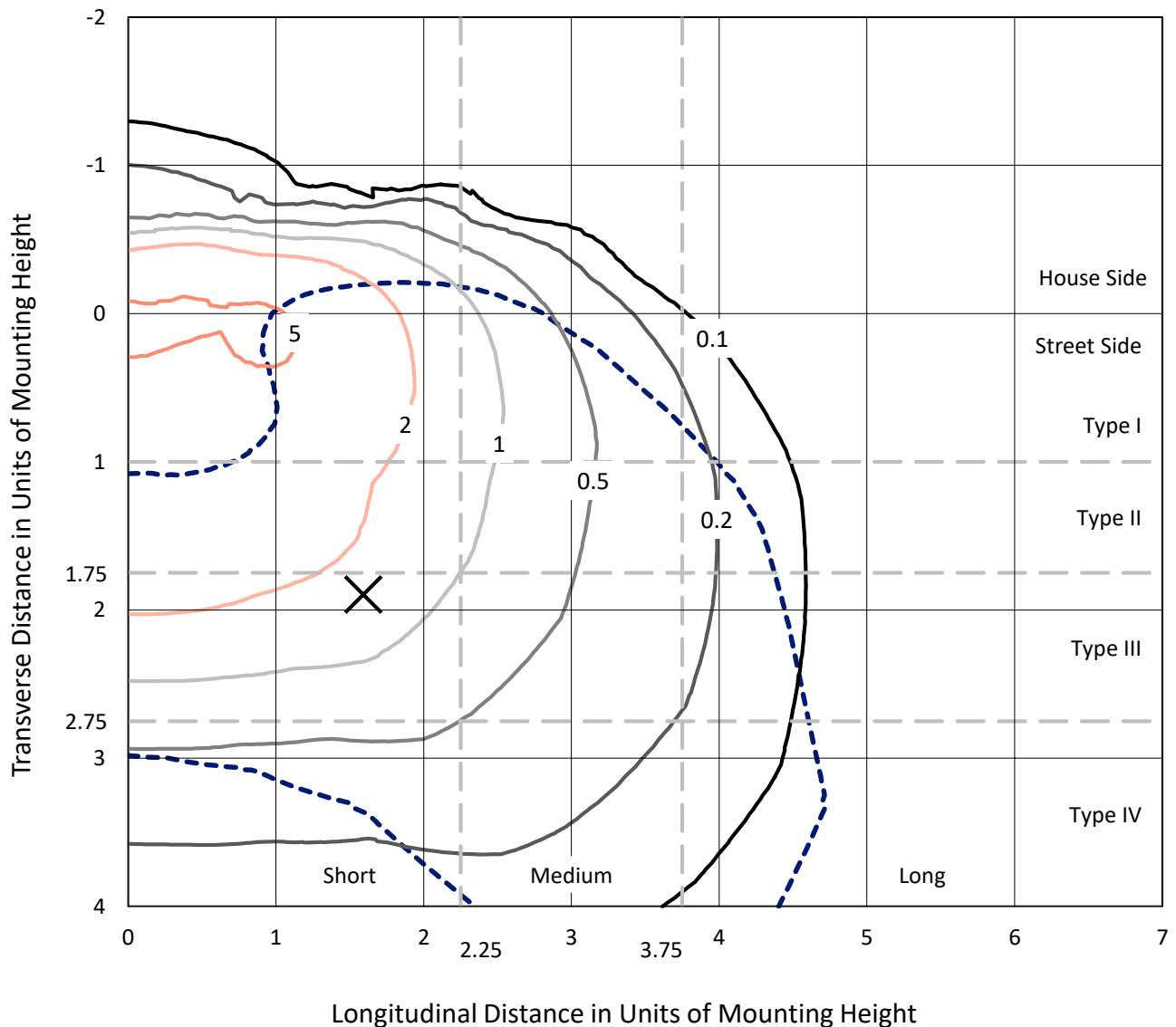
Input Watts (W): 39
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

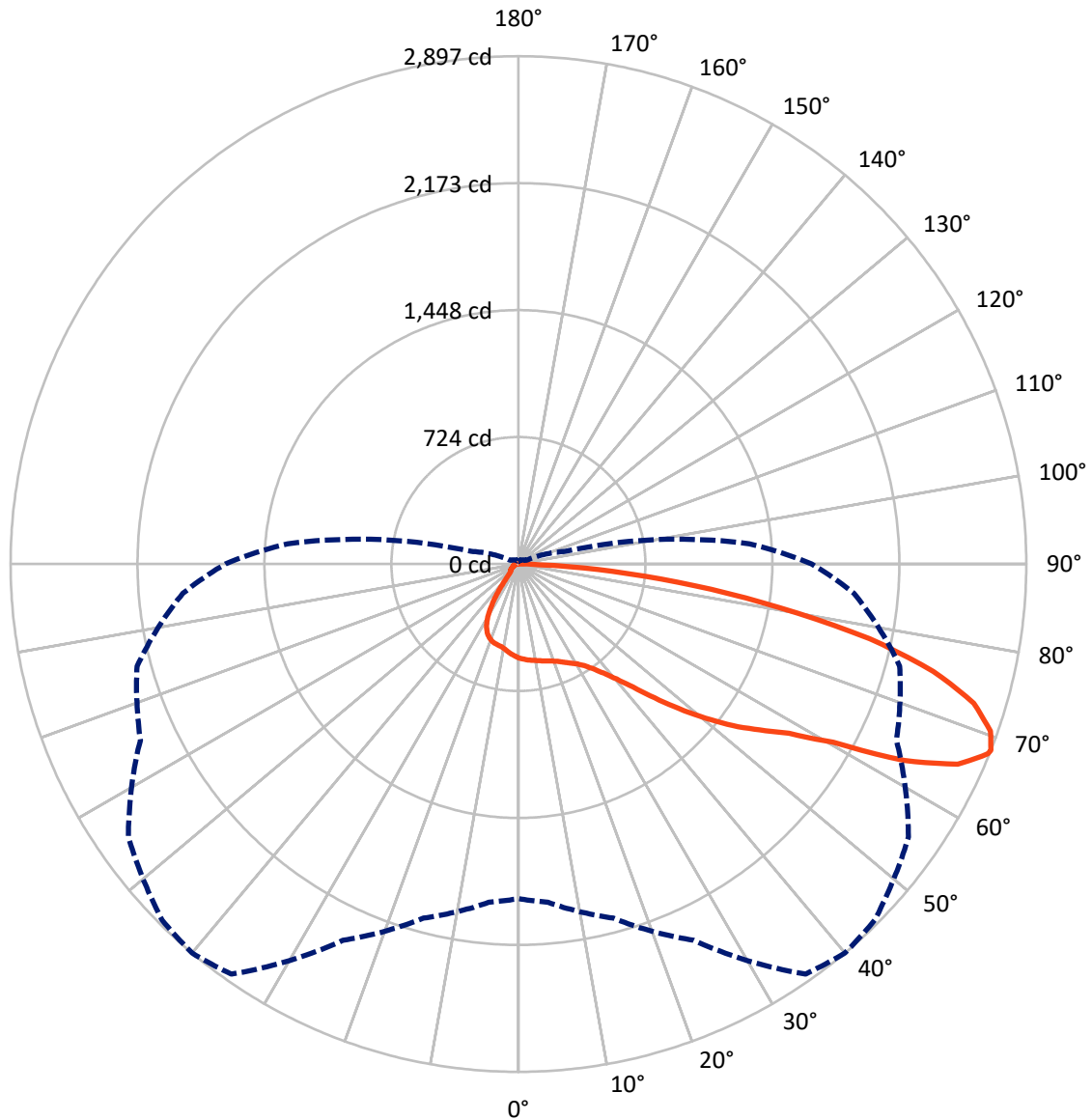
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.8 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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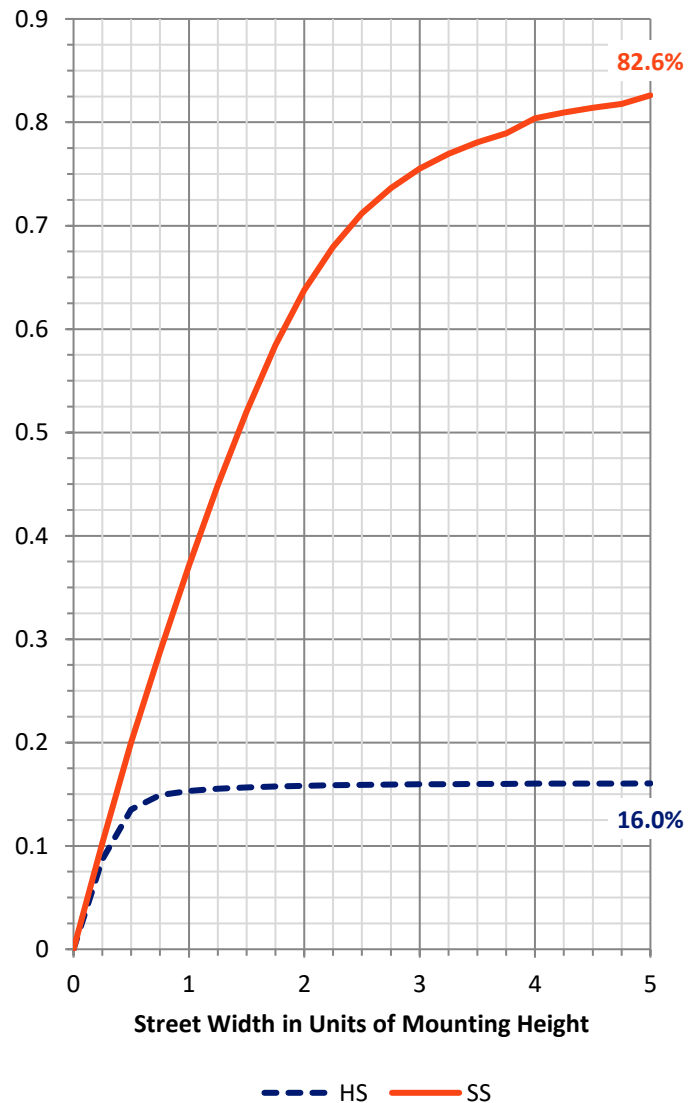
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	783.5	0.0	783.5
	% Fixture	16.2	0.0	16.2
Street Side	Lumens	4046.5	0.0	4046.5
	% Fixture	83.8	0.0	83.8
Total	Lumens	4830.0	0.0	4830.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.9	1.1
10°-20°	152.5	3.2
20°-30°	256.0	5.3
30°-40°	379.1	7.8
40°-50°	641.3	13.3
50°-60°	978.7	20.3
60°-70°	1281.5	26.5
70°-80°	921.3	19.1
80°-90°	168.7	3.5
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°	4830.0	100.0
0°-180°	4830.0	100.0



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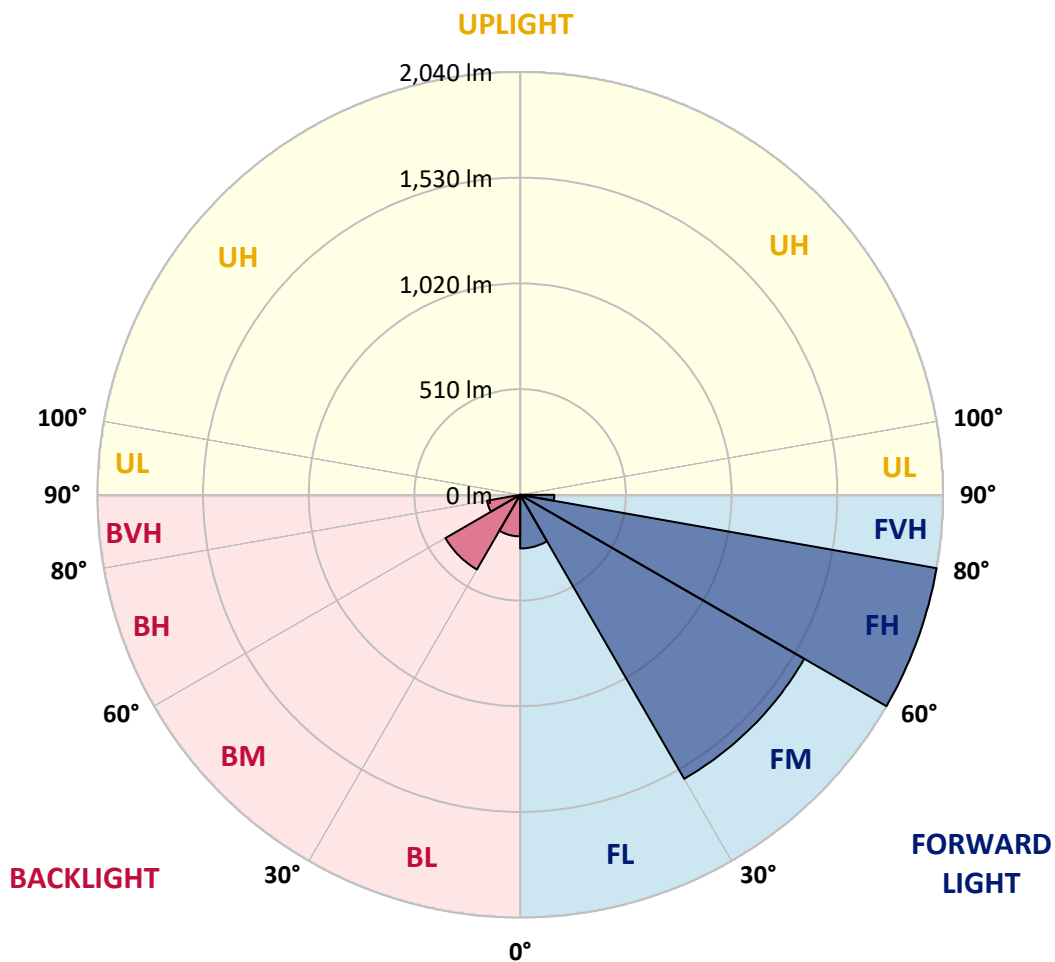
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	258.9	5.4			
FM	(30°-60°)	1582.6	32.8			
FH	(60°-80°)	2040.3	42.2			G2/5000
FVH	(80°-90°)	164.7	3.4			G2/225
BL	(0°-30°)	200.5	4.2	B1/500		
BM	(30°-60°)	416.4	8.6	B1/1000		
BH	(60°-80°)	162.6	3.4	B1/500		G1/500
BVH	(80°-90°)	4.0	0.1			G0/10
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°	40°	45°	55°	65°	75°	85°
0°	536.7	536.7	536.7	536.7	536.7	536.7	536.7	536.7	536.7	536.7	536.7
2.5°	553.7	554.9	553.3	549.2	544.8	542.4	542.0	541.6	539.5	536.7	532.7
5°	559.4	559.8	558.1	554.9	550.9	550.1	548.8	549.2	548.0	545.2	540.8
7.5°	561.8	562.6	560.6	557.3	554.1	554.1	553.7	554.9	554.1	552.9	547.6
10°	561.0	562.2	561.0	559.8	558.5	559.8	559.0	561.8	562.2	562.2	556.1
12.5°	559.8	561.4	561.8	563.0	565.0	566.2	567.8	573.9	576.7	578.8	573.9
15°	561.0	561.8	565.0	567.0	571.1	573.9	577.6	587.7	592.5	598.2	595.8
17.5°	566.2	568.3	573.1	575.1	579.2	581.2	585.6	598.2	607.9	618.0	619.6
20°	577.6	578.8	586.9	587.7	589.7	591.7	596.6	610.3	624.9	639.4	643.5
22.5°	590.1	592.9	600.6	599.4	603.4	604.2	608.7	623.7	643.9	661.7	670.6
25°	603.0	605.5	613.1	614.0	618.8	622.0	627.3	641.9	667.7	690.4	706.2
27.5°	614.0	618.8	626.1	626.9	636.2	640.2	647.9	664.5	695.7	723.6	749.4
30°	634.2	635.4	642.3	644.7	657.2	660.9	669.8	690.8	728.8	763.6	804.0
32.5°	659.3	658.9	665.3	669.4	684.7	691.2	702.5	726.8	768.9	812.1	869.6
35°	705.4	701.3	705.4	709.4	727.2	734.1	746.2	782.6	832.0	905.6	976.3
37.5°	811.3	805.3	796.8	776.5	781.0	789.9	807.7	857.0	929.8	1066.5	1134.9
40°	994.9	981.6	946.0	892.6	861.1	861.9	878.5	943.2	1050.0	1251.0	1302.3
42.5°	1161.2	1151.9	1109.0	1035.8	963.0	959.0	964.6	1040.2	1181.0	1422.0	1448.7
45°	1317.7	1322.1	1259.9	1202.4	1115.5	1088.8	1081.9	1143.8	1326.2	1574.5	1577.0
47.5°	1462.5	1469.8	1394.5	1340.4	1254.6	1231.6	1210.1	1252.6	1463.3	1704.4	1684.5
50°	1618.2	1623.9	1519.5	1475.0	1403.0	1381.6	1365.4	1384.0	1603.6	1824.9	1780.4
52.5°	1833.4	1801.8	1670.8	1597.2	1533.3	1531.7	1519.1	1530.8	1763.4	1933.3	1853.2
55°	2087.4	2004.9	1865.7	1748.0	1665.9	1670.4	1655.4	1674.8	1921.5	2026.3	1920.7
57.5°	2177.2	2175.1	2110.4	1997.6	1830.9	1820.8	1795.0	1816.8	2058.3	2113.3	1968.5
60°	2301.7	2312.7	2319.9	2252.0	2155.7	2063.9	1977.4	1975.3	2185.7	2192.5	1991.9
62.5°	2382.2	2392.3	2449.0	2440.1	2499.5	2469.2	2370.5	2151.7	2283.1	2243.9	2000.8
65°	2231.8	2256.8	2399.6	2508.4	2711.0	2753.5	2739.3	2422.7	2349.5	2258.9	1984.2
67.5°	1959.6	1992.3	2148.8	2403.2	2842.1	2889.4	2863.5	2695.7	2378.2	2252.4	1938.5
68°	1908.6	1936.9	2090.6	2368.1	2855.4	2896.7	2873.2	2715.9	2379.4	2251.6	1921.1
70°	1663.5	1686.6	1836.6	2187.7	2818.2	2856.6	2853.4	2734.9	2368.9	2226.5	1804.3
72.5°	1290.6	1313.7	1446.7	1814.4	2646.3	2716.7	2713.9	2658.9	2349.5	2098.7	1512.6
75°	933.1	958.5	1079.9	1394.1	2290.0	2444.9	2476.0	2528.6	2147.6	1766.2	1076.2
77.5°	673.8	692.4	797.2	1053.2	1870.6	2047.7	2110.8	2163.8	1757.7	1287.4	512.0
80°	449.3	462.7	563.8	783.0	1409.1	1513.5	1581.4	1492.8	1000.2	465.5	55.4
82.5°	276.6	285.1	364.8	549.2	974.7	1007.5	1007.9	796.4	322.3	44.5	29.9
85°	148.4	151.3	198.2	299.7	514.9	539.5	529.8	334.5	65.1	23.9	16.2
87.5°	23.9	25.9	62.3	112.4	158.9	122.5	78.5	24.7	6.5	3.6	2.4
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°	536.7	536.7	536.7	536.7	536.7	536.7	536.7	536.7	536.7	536.7	536.7
2.5°	534.7	533.5	530.2	528.6	524.6	525.8	525.8	522.6	524.2	530.6	529.8
5°	539.5	539.9	532.3	528.2	519.3	516.9	513.2	508.4	508.0	512.4	512.8
7.5°	543.6	545.6	534.7	526.6	514.5	506.0	498.7	490.2	488.2	491.0	491.0
10°	550.1	552.1	538.3	527.0	509.2	495.5	482.9	472.0	467.5	467.5	467.9
12.5°	567.0	565.8	550.1	532.7	511.6	489.8	470.0	455.4	444.9	444.5	442.9
15°	590.5	586.0	570.7	544.4	517.3	489.4	461.9	439.2	421.0	416.2	414.2
17.5°	615.6	609.9	591.3	559.4	526.2	489.0	452.6	421.0	390.7	379.0	375.3
20°	642.7	635.8	616.8	576.7	535.1	486.1	438.8	394.7	353.5	331.2	325.6
22.5°	672.6	666.9	643.9	594.5	541.2	480.1	417.4	361.6	309.0	277.0	274.6
25°	711.4	706.2	672.2	610.3	541.6	468.8	389.1	319.1	253.2	215.6	207.9
27.5°	757.9	748.6	694.8	620.0	535.1	448.9	352.3	262.5	188.1	156.5	155.7
30°	808.5	791.5	713.0	622.4	520.5	417.4	301.7	192.9	133.5	112.0	112.0
32.5°	868.0	836.8	731.7	618.4	496.7	373.7	230.9	133.9	91.8	81.7	81.7
35°	954.9	906.8	755.5	608.3	463.1	313.4	164.2	88.6	72.4	71.2	71.2
37.5°	1092.4	1012.3	787.9	591.3	417.0	239.0	106.8	68.4	69.2	69.2	68.8
40°	1238.8	1134.5	832.4	564.2	359.2	165.0	70.0	64.7	65.9	66.7	66.3
42.5°	1371.1	1250.6	880.9	527.8	290.8	103.9	63.9	62.3	61.5	62.3	62.7
45°	1485.5	1351.3	929.8	480.5	214.8	67.9	62.3	58.6	56.2	56.6	57.0
47.5°	1583.4	1430.5	963.0	430.7	142.4	60.3	60.3	53.8	51.4	51.4	51.4
50°	1669.2	1500.9	983.2	371.3	84.9	59.5	56.6	49.3	46.9	46.5	46.9
52.5°	1731.5	1550.3	980.8	298.9	57.0	57.4	51.8	45.3	42.5	43.3	43.7
55°	1780.8	1581.4	959.4	218.8	53.4	53.8	48.1	40.8	38.8	39.2	39.2
57.5°	1811.9	1589.1	915.7	142.4	52.2	48.1	43.3	36.4	34.0	34.0	34.0
60°	1822.1	1585.0	856.2	91.0	51.8	43.3	39.2	32.8	30.3	30.3	30.3
62.5°	1813.6	1561.6	755.5	65.5	48.1	40.4	35.6	29.1	26.7	25.9	25.9
65°	1783.2	1498.9	582.4	54.2	43.3	37.2	32.4	26.3	23.1	21.8	21.4
67.5°	1694.6	1363.0	338.9	51.0	39.2	34.0	29.9	23.9	20.2	18.2	17.8
68°	1671.6	1322.6	278.7	50.6	39.2	33.6	29.5	23.1	19.4	17.4	17.0
70°	1506.6	1066.9	80.1	48.1	38.4	32.4	27.1	21.0	17.4	15.0	14.6
72.5°	1134.5	625.3	50.2	42.9	38.0	28.7	26.3	21.0	15.4	12.9	12.1
75°	633.4	142.4	42.5	32.0	35.6	28.3	25.9	19.0	13.8	10.5	10.1
77.5°	130.2	41.3	36.4	22.2	27.1	24.7	21.8	16.2	12.5	8.1	7.7
80°	36.8	30.7	32.4	16.2	15.4	17.4	16.2	14.2	9.3	6.1	6.1
82.5°	23.9	22.6	29.1	10.9	8.1	8.1	10.5	8.5	8.1	4.9	4.9
85°	14.6	19.0	14.2	4.9	4.0	3.2	3.6	3.6	4.9	3.2	3.2
87.5°	2.0	2.0	2.0	2.0	2.0	1.6	1.2	1.2	1.2	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

(END OF REPORT)