

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: P233534

Luminaire Tested: **VRDN-C018-D-UNV-T3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P233534
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-C018-D-UNV-T3
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 1210mA LED AND TYPE III OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5967 lumens
Efficiency: N/A
Efficacy: 119.3 lumens/watt
Luminous Opening: Rectangular (W 0.79' x L: 1.25' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 50
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

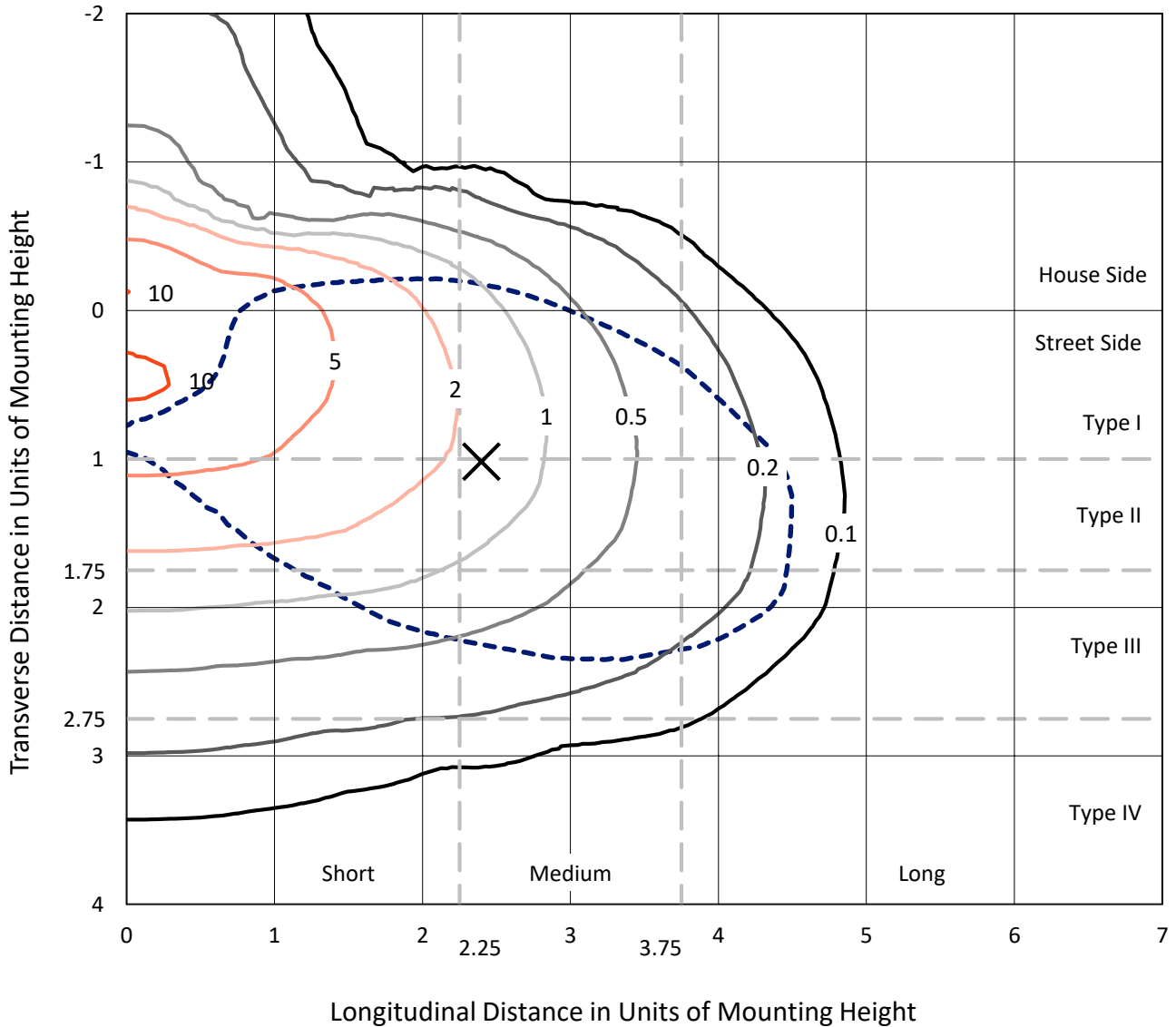


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

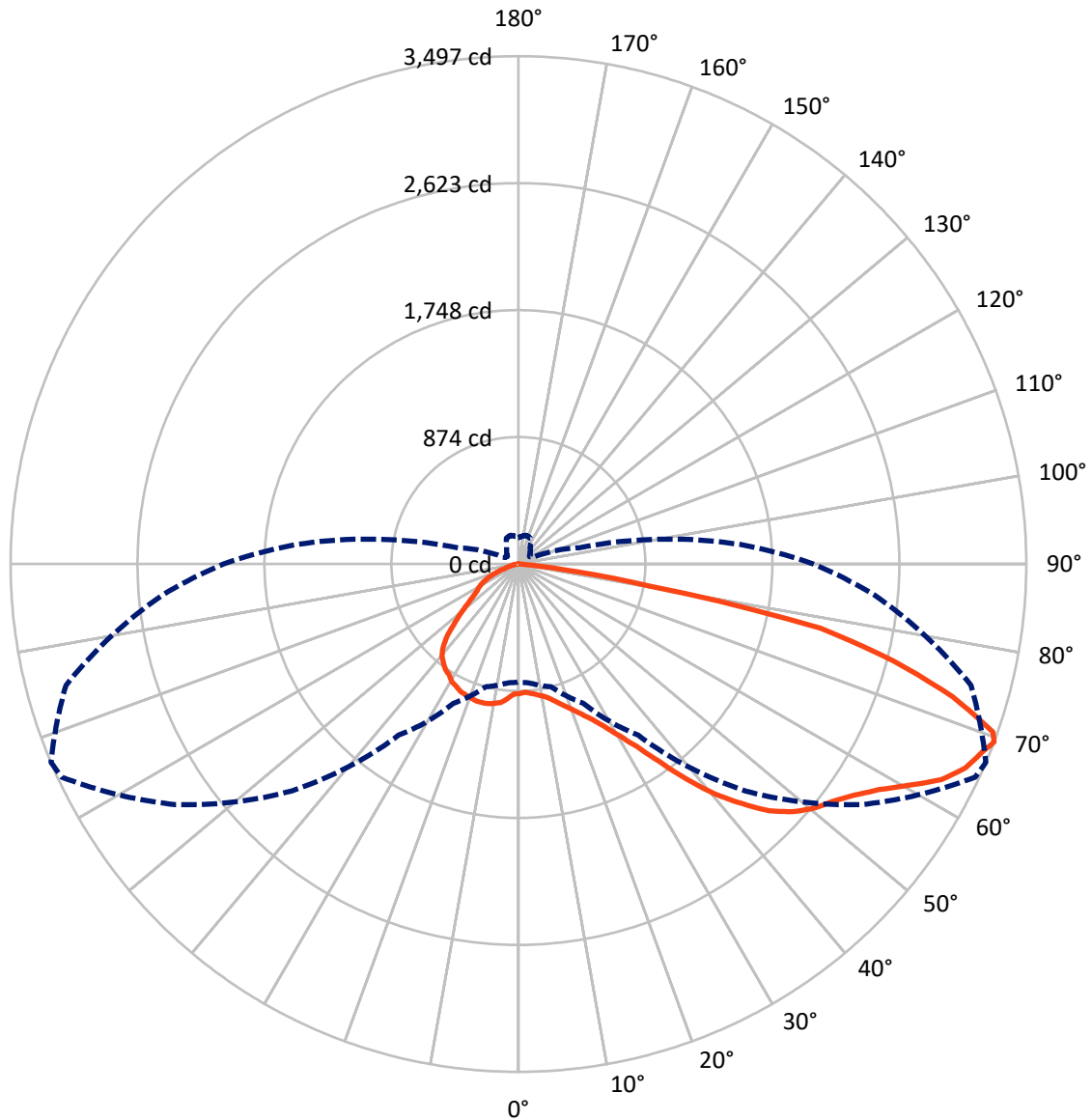


Based on 10 foot mounting height. Maximum calculated value = 10.4 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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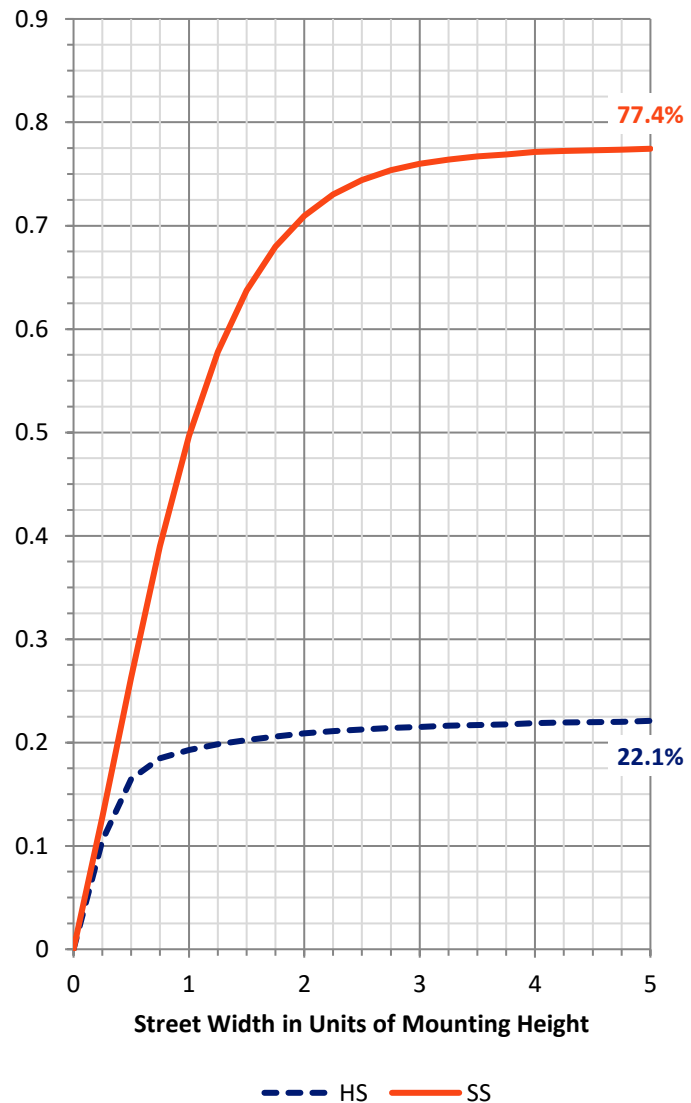
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1343.7	0.0	1343.7
	% Fixture	22.5	0.0	22.5
Street Side	Lumens	4623.3	0.0	4623.3
	% Fixture	77.5	0.0	77.5
Total	Lumens	5967.0	0.0	5967.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.4	1.5
10°-20°	288.1	4.8
20°-30°	496.3	8.3
30°-40°	738.2	12.4
40°-50°	1016.7	17.0
50°-60°	1215.4	20.4
60°-70°	1282.6	21.5
70°-80°	768.6	12.9
80°-90°	70.7	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°	5967.0	100.0
0°-180°	5967.0	100.0

Coefficient of Utilization



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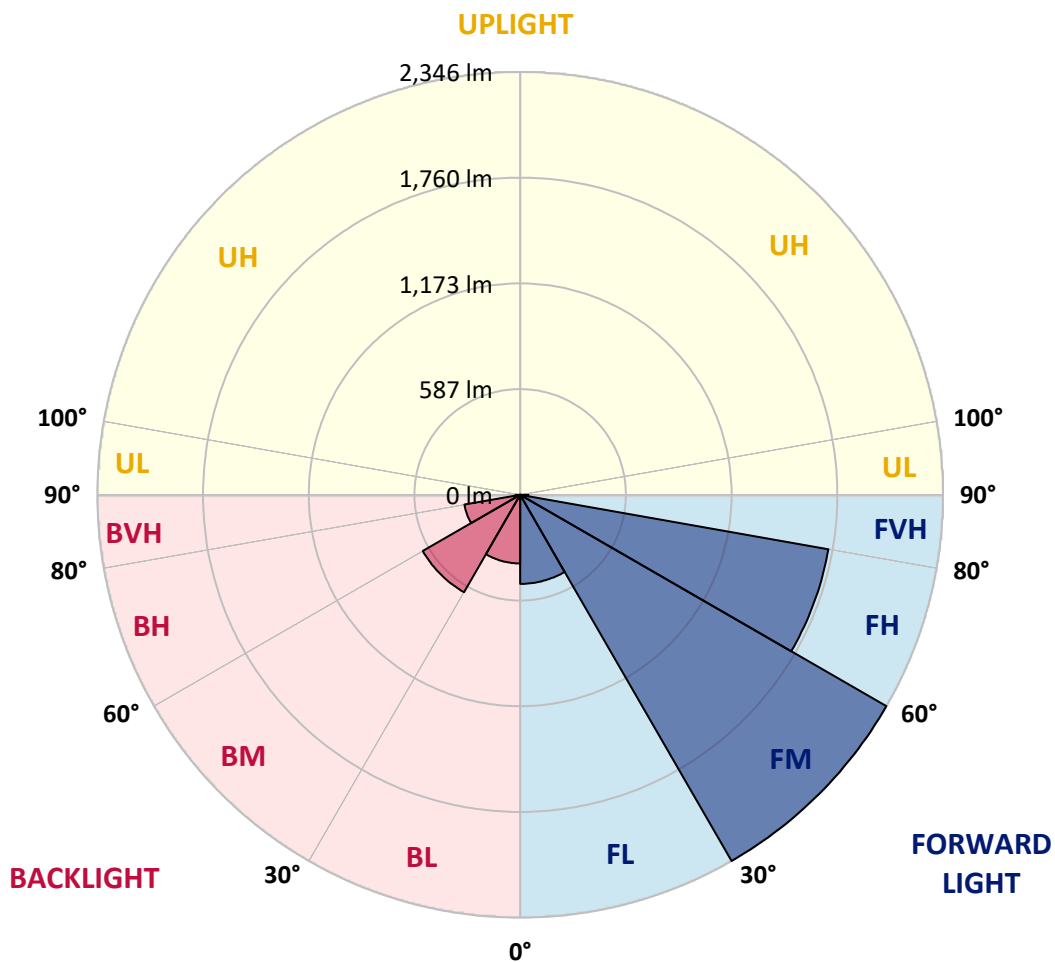
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	494.1	8.3			
FM	(30°-60°)	2346.5	39.3			
FH	(60°-80°)	1737.0	29.1			G1/1800
FVH	(80°-90°)	45.7	0.8			G1/100
BL	(0°-30°)	380.7	6.4	B1/500		
BM	(30°-60°)	623.8	10.5	B1/1000		
BH	(60°-80°)	314.2	5.3	B1/500		G1/500
BVH	(80°-90°)	25.0	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	892.5	892.5	892.5	892.5	892.5	892.5	892.5	892.5	892.5	892.5	892.5
2.5°	907.2	906.6	903.9	894.2	893.1	892.0	885.5	886.0	884.4	886.0	886.6
5°	932.1	930.0	927.3	917.0	913.2	908.3	898.5	898.0	894.2	895.3	896.3
7.5°	963.1	960.9	958.7	946.8	943.0	934.3	919.1	911.5	908.3	909.4	911.0
10°	1004.9	1001.1	997.8	980.4	974.5	959.8	941.4	928.4	924.0	925.6	930.0
12.5°	1052.6	1047.7	1042.3	1024.4	1016.2	993.5	971.8	954.9	948.4	952.2	955.5
15°	1102.0	1099.3	1097.1	1075.9	1064.5	1039.6	1012.4	991.3	985.3	988.6	990.2
17.5°	1167.1	1165.5	1161.7	1140.0	1118.3	1089.5	1054.2	1032.0	1026.0	1027.6	1023.8
20°	1238.2	1233.8	1231.7	1207.2	1184.4	1144.8	1104.1	1072.7	1071.0	1071.6	1059.7
22.5°	1317.9	1313.0	1308.7	1286.5	1258.2	1212.1	1158.9	1123.7	1124.8	1125.8	1099.3
25°	1399.3	1395.5	1391.7	1370.6	1342.3	1291.9	1227.9	1188.2	1187.7	1188.2	1151.3
27.5°	1484.5	1480.2	1479.6	1462.2	1434.0	1382.5	1308.7	1268.5	1268.5	1266.4	1210.5
30°	1560.5	1564.8	1564.8	1555.0	1528.4	1476.9	1407.4	1367.3	1372.7	1368.4	1297.3
32.5°	1643.5	1642.4	1650.0	1642.4	1620.7	1572.9	1514.9	1489.4	1498.6	1512.7	1441.6
35°	1691.8	1699.4	1718.3	1729.2	1718.9	1679.8	1637.5	1657.0	1669.5	1733.0	1647.8
37.5°	1747.6	1754.2	1780.2	1806.8	1811.1	1790.0	1790.0	1854.0	1878.4	1961.4	1862.1
40°	1786.2	1792.7	1820.9	1851.8	1894.1	1908.8	1946.8	2046.1	2080.8	2136.7	2021.6
42.5°	1763.4	1766.6	1827.4	1902.8	1965.2	2035.8	2096.0	2221.9	2255.0	2294.0	2152.9
45°	1723.2	1729.2	1796.5	1918.0	2025.4	2165.4	2241.4	2387.3	2425.3	2421.5	2253.9
47.5°	1678.7	1688.0	1762.8	1898.5	2077.0	2277.7	2374.3	2526.2	2547.9	2520.8	2323.9
50°	1629.4	1645.1	1724.9	1878.9	2114.4	2375.9	2473.1	2630.4	2641.8	2586.5	2385.2
52.5°	1572.9	1583.2	1671.7	1841.5	2140.5	2441.1	2551.7	2708.0	2712.9	2667.9	2449.7
55°	1494.8	1504.0	1602.2	1791.6	2144.3	2479.6	2602.2	2791.0	2807.3	2763.3	2508.3
57.5°	1410.7	1422.1	1523.0	1719.4	2109.5	2495.3	2663.0	2897.9	2929.4	2866.4	2555.5
60°	1313.0	1327.7	1429.7	1631.5	2041.2	2519.7	2776.4	3053.6	3092.7	2983.1	2600.6
62.5°	1211.6	1219.7	1313.6	1510.0	1934.8	2532.2	2879.5	3231.6	3269.0	3093.2	2621.7
65°	1068.9	1081.9	1165.5	1364.0	1785.1	2478.5	2927.7	3355.8	3383.0	3182.8	2601.1
67.5°	917.5	917.5	988.6	1189.3	1585.4	2336.3	2908.2	3415.5	3448.1	3245.7	2536.0
69°	812.8	820.9	875.2	1058.0	1438.9	2209.9	2887.1	3470.3	3496.9	3225.6	2461.1
70°	732.5	739.5	794.3	962.5	1329.9	2110.1	2841.5	3445.9	3465.4	3163.8	2382.5
72.5°	538.8	544.7	582.7	670.6	1000.0	1702.6	2562.1	3115.5	3127.4	2845.3	2101.9
75°	367.3	370.6	399.3	453.1	583.3	1190.4	2093.3	2631.5	2666.8	2467.6	1721.1
77.5°	127.0	136.7	154.1	208.3	249.6	467.7	1418.8	2073.7	2126.4	1911.0	1204.0
80°	43.4	42.9	82.5	106.9	131.3	214.9	448.7	869.2	918.6	787.8	433.5
82.5°	32.6	33.6	54.8	59.1	40.2	79.2	174.7	265.9	291.4	254.5	179.6
85°	20.6	20.1	24.4	25.5	18.4	33.6	42.3	42.9	44.5	38.5	39.1
87.5°	11.4	11.4	10.9	9.2	4.9	4.3	3.8	3.8	3.3	3.3	3.3
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°	892.5	892.5	892.5	892.5	892.5	892.5	892.5	892.5	892.5	892.5	892.5
2.5°	883.9	891.5	893.1	895.3	900.7	907.7	917.5	917.5	921.3	932.7	936.5
5°	896.3	905.6	917.5	930.0	944.6	960.4	976.1	981.5	989.1	1004.3	1007.6
7.5°	915.3	925.6	946.3	963.1	975.6	991.3	1004.3	1006.5	1016.2	1030.4	1033.1
10°	934.9	944.1	964.7	973.4	990.2	1007.6	1014.1	1017.3	1025.5	1036.3	1034.7
12.5°	961.4	964.2	978.8	984.8	992.9	1003.8	1007.0	1007.0	1011.9	1029.3	1029.8
15°	987.5	987.5	989.7	986.4	987.5	992.9	993.5	986.4	991.8	1000.5	997.3
17.5°	1015.2	1007.6	997.8	983.7	971.2	970.7	959.3	942.5	937.6	950.1	949.5
20°	1041.2	1028.2	1004.9	972.8	955.5	932.1	903.4	893.6	893.1	895.3	893.6
22.5°	1075.4	1048.8	1006.5	962.5	914.8	877.9	854.0	820.9	819.8	815.0	807.4
25°	1116.1	1078.1	1013.5	951.1	881.7	833.9	776.4	741.2	721.1	725.4	712.4
27.5°	1168.7	1122.6	1016.2	926.2	836.1	755.3	685.8	640.2	622.9	615.3	606.6
30°	1240.9	1169.8	1035.8	905.0	779.7	672.8	587.6	521.4	496.5	503.0	504.1
32.5°	1356.4	1259.3	1046.1	863.2	714.6	582.7	472.0	400.4	385.8	404.2	409.1
35°	1557.7	1398.2	1070.5	838.3	640.2	477.5	351.0	321.7	325.0	340.7	341.8
37.5°	1755.8	1574.0	1145.9	784.0	551.3	353.8	272.4	256.6	272.4	292.4	295.2
40°	1894.7	1711.3	1212.7	730.3	426.5	256.1	207.8	188.8	211.6	243.6	249.6
42.5°	2017.8	1820.3	1259.9	656.0	291.9	182.8	149.2	154.1	187.7	211.1	216.5
45°	2106.3	1895.2	1292.4	559.4	186.1	138.4	133.5	149.2	181.2	199.7	201.3
47.5°	2162.2	1939.2	1268.5	440.6	140.0	130.8	131.3	151.4	183.4	204.0	203.5
50°	2212.6	1962.5	1191.0	349.4	132.9	125.3	134.0	157.3	190.4	209.4	208.3
52.5°	2266.3	1985.3	1096.5	274.0	127.5	122.6	137.3	161.1	190.4	202.4	200.8
55°	2312.5	2005.4	1025.5	220.3	123.7	122.1	140.5	167.1	189.4	194.2	191.0
57.5°	2336.3	1971.2	948.4	185.0	119.9	122.1	142.7	166.0	195.9	211.6	208.3
60°	2323.3	1939.2	886.0	172.0	114.5	121.5	143.8	178.0	240.4	255.0	253.9
62.5°	2299.4	1903.9	798.7	154.6	108.5	122.6	143.2	188.8	276.7	271.8	258.3
65°	2250.6	1833.4	679.3	134.6	102.5	124.8	143.2	212.7	241.4	236.0	230.1
67.5°	2146.4	1680.9	543.7	115.6	96.0	118.3	141.1	202.4	207.8	193.7	186.6
69°	2029.8	1535.5	430.3	105.3	92.2	115.0	140.5	195.3	204.6	189.4	181.2
70°	1938.6	1422.1	347.8	97.7	88.4	113.9	140.0	190.4	202.9	186.1	177.4
72.5°	1614.7	1149.2	182.3	78.7	75.4	103.6	135.1	186.1	203.5	178.5	166.0
75°	1268.5	817.7	121.0	60.2	58.1	90.6	123.7	179.1	191.5	160.6	141.6
77.5°	782.4	358.1	83.6	41.8	42.3	70.5	106.3	160.1	193.2	162.2	137.8
80°	227.3	138.4	53.2	28.2	26.0	41.8	83.6	137.8	183.4	166.6	150.3
82.5°	131.3	90.1	35.8	17.9	15.7	19.0	52.6	106.9	161.7	152.5	155.7
85°	29.8	25.0	13.0	8.7	8.7	10.9	17.9	61.9	111.8	130.8	147.6
87.5°	3.3	3.3	3.3	3.3	3.3	2.7	3.3	16.8	48.8	69.4	80.8
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)