

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: P233735

Luminaire Tested: **VRDN-C02-D-UNV-T3-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P233735
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1710-389-33)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: VRDN-C02-D-UNV-T3-7030-HSS
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 1140mA LEDS AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9882 lumens
Efficiency: N/A
Efficacy: 109.8 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

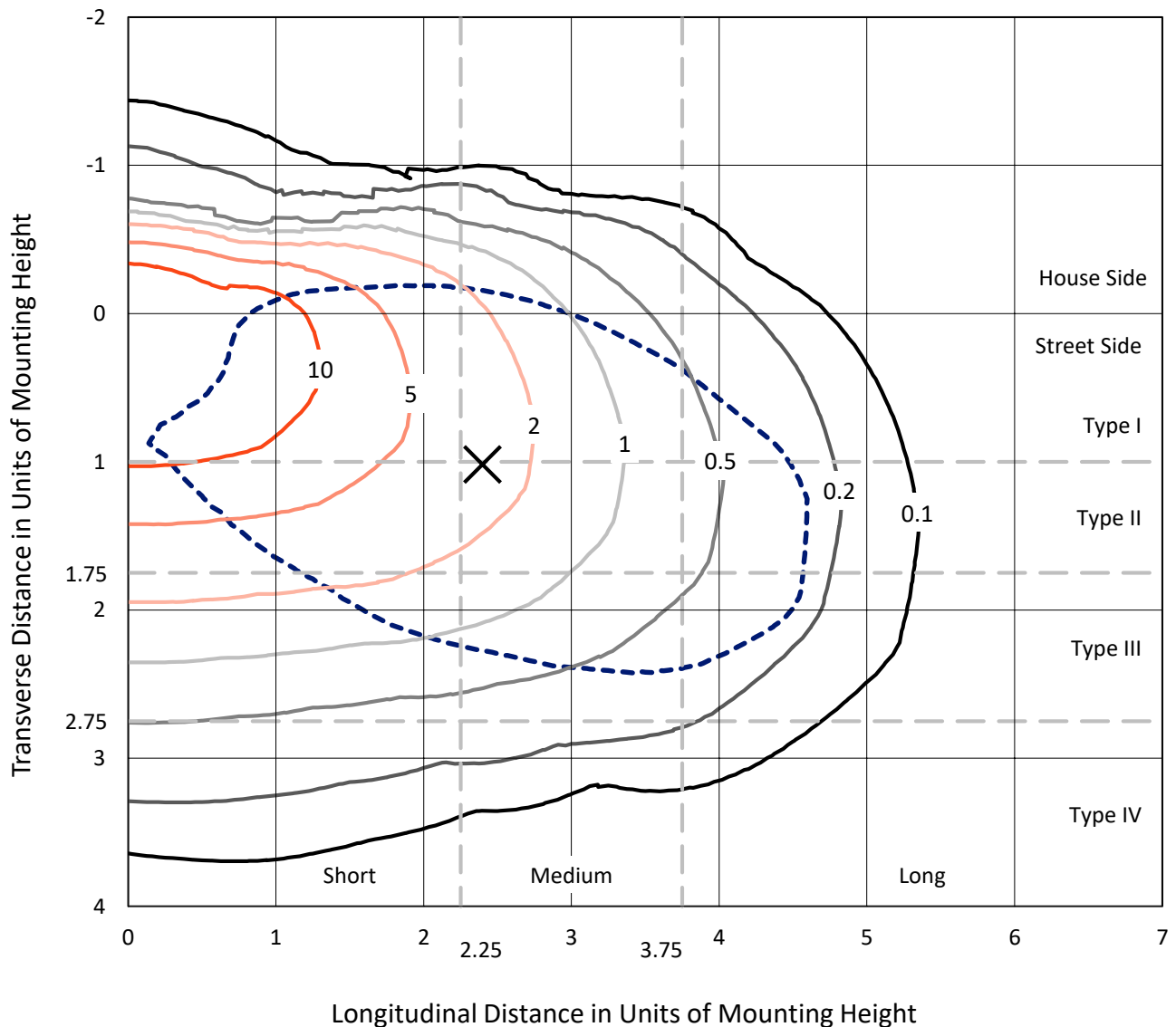
Input Watts (W): 90
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

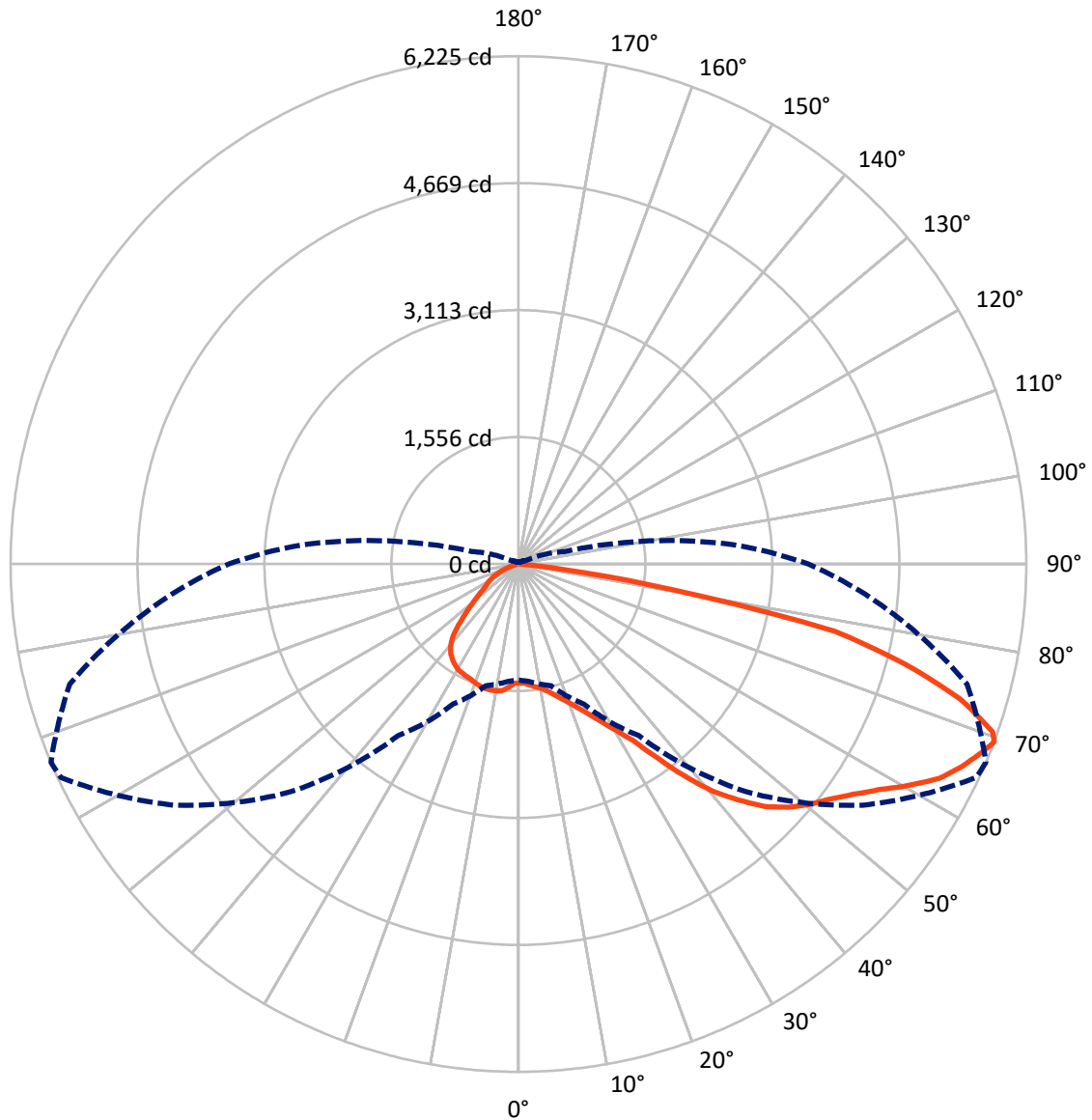
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 17.9 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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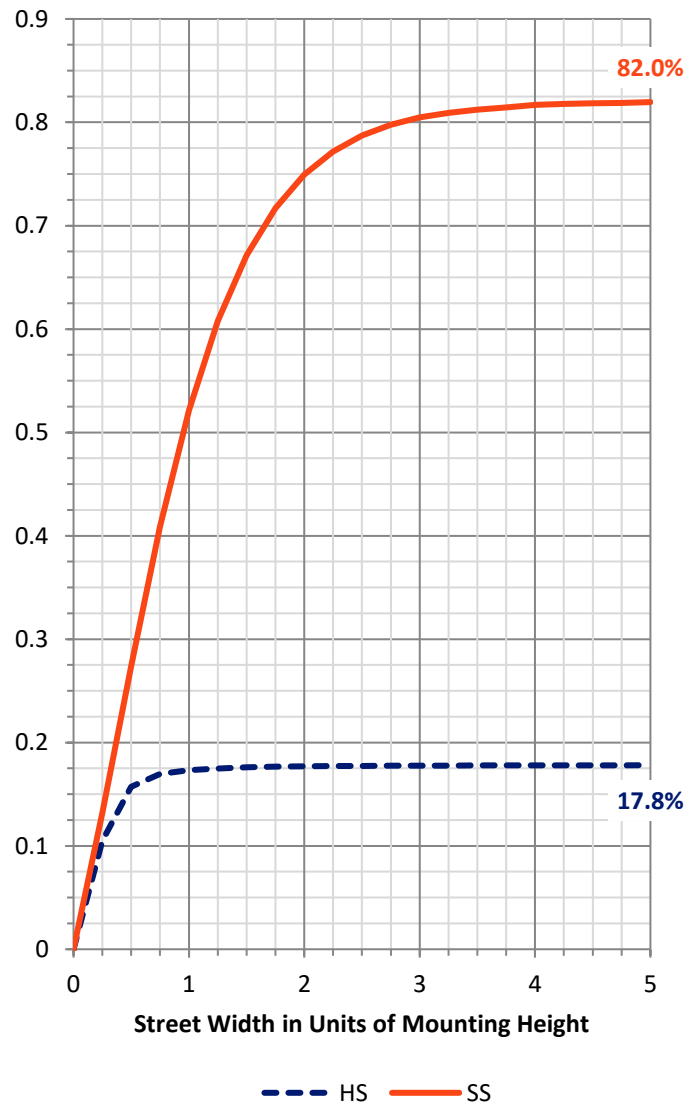
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1781.4	0.0	1781.4
	% Fixture	18.0	0.0	18.0
Street Side	Lumens	8100.6	0.0	8100.6
	% Fixture	82.0	0.0	82.0
Total	Lumens	9882.0	0.0	9882.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.5	1.5
10°-20°	463.9	4.7
20°-30°	791.8	8.0
30°-40°	1197.2	12.1
40°-50°	1691.4	17.1
50°-60°	2044.1	20.7
60°-70°	2156.9	21.8
70°-80°	1298.4	13.1
80°-90°	90.8	0.9
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°	9882.0	100.0
0°-180°	9882.0	100.0

Coefficient of Utilization



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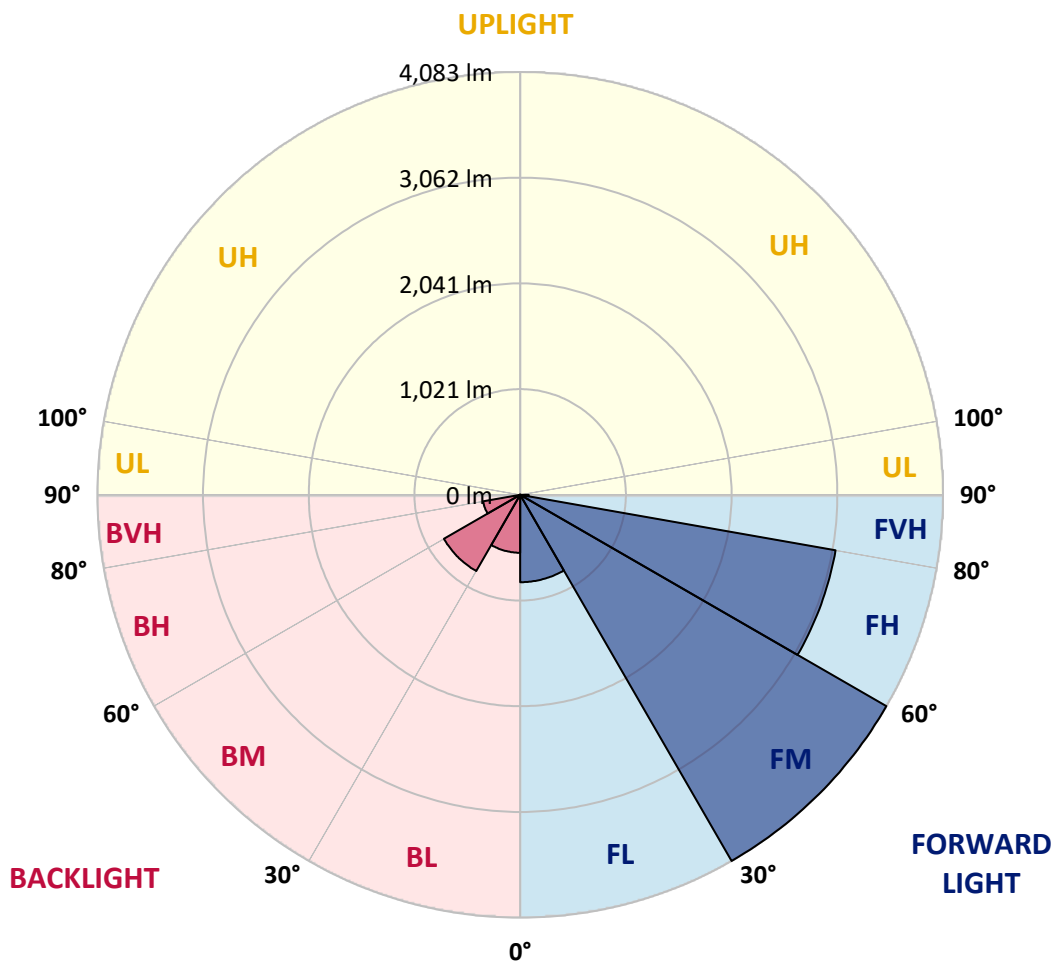
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	843.8	8.5			
FM	(30°-60°)	4082.7	41.3			
FH	(60°-80°)	3092.1	31.3			G2/5000
FVH	(80°-90°)	81.9	0.8			G1/100
BL	(0°-30°)	559.5	5.7	B2/1000		
BM	(30°-60°)	850.0	8.6	B1/1000		
BH	(60°-80°)	363.2	3.7	B1/500		G1/500
BVH	(80°-90°)	8.8	0.1			G0/10
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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	1461.4	1461.4	1461.4	1461.4	1461.4	1461.4	1461.4	1461.4	1461.4	1461.4	1461.4
2.5°	1499.2	1496.8	1496.8	1483.4	1470.8	1467.7	1466.9	1463.0	1463.8	1458.2	1452.7
5°	1542.5	1542.5	1540.9	1523.6	1510.2	1501.6	1496.0	1489.0	1489.7	1485.8	1481.1
7.5°	1607.9	1608.6	1605.5	1582.7	1569.3	1548.0	1535.4	1522.0	1521.2	1516.5	1518.1
10°	1688.2	1690.5	1685.8	1656.7	1633.8	1604.7	1577.9	1554.3	1552.7	1547.2	1551.9
12.5°	1778.7	1781.9	1770.1	1740.1	1714.2	1668.5	1636.2	1604.7	1600.0	1599.2	1602.3
15°	1882.7	1884.2	1880.3	1836.2	1804.7	1763.0	1710.2	1670.1	1665.3	1666.1	1662.2
17.5°	1998.4	2002.3	1993.7	1954.3	1912.6	1855.1	1792.1	1742.5	1740.1	1737.8	1720.5
20°	2121.2	2125.2	2119.7	2082.7	2033.0	1960.6	1883.4	1826.7	1826.0	1820.4	1780.3
22.5°	2259.8	2265.3	2262.2	2217.3	2164.5	2085.8	1989.7	1930.7	1929.1	1911.8	1851.2
25°	2410.2	2408.6	2411.8	2363.7	2314.1	2231.5	2112.6	2051.2	2051.2	2029.9	1940.1
27.5°	2555.9	2555.1	2560.6	2526.7	2474.8	2396.8	2253.5	2191.3	2196.8	2166.1	2047.2
30°	2697.6	2697.6	2711.0	2688.9	2650.4	2568.5	2428.3	2363.0	2370.0	2337.8	2182.6
32.5°	2829.9	2836.2	2859.0	2845.6	2816.5	2742.5	2622.8	2563.0	2579.5	2592.9	2434.6
35°	2927.5	2933.8	2986.6	2991.3	2984.2	2934.6	2845.6	2884.2	2903.9	3009.4	2833.0
37.5°	3013.3	3021.2	3084.2	3123.6	3146.4	3115.7	3121.2	3250.4	3287.4	3411.8	3173.2
40°	3076.3	3093.7	3155.9	3210.2	3290.5	3326.7	3416.5	3600.0	3659.8	3709.4	3407.0
42.5°	3033.0	3044.8	3154.3	3300.0	3417.3	3544.8	3690.5	3908.6	3953.5	3937.7	3613.3
45°	2969.3	2983.4	3098.4	3323.6	3518.1	3772.4	3950.3	4186.6	4237.7	4150.3	3791.3
47.5°	2897.6	2917.3	3041.7	3292.1	3602.3	3981.8	4185.8	4425.1	4455.1	4340.1	3940.9
50°	2825.2	2847.2	2988.2	3266.1	3667.7	4156.6	4357.4	4619.6	4628.3	4497.6	4075.5
52.5°	2727.5	2750.4	2904.7	3211.8	3713.3	4271.6	4507.8	4779.5	4785.0	4667.7	4203.1
55°	2603.9	2633.0	2796.0	3131.5	3724.4	4338.5	4603.1	4945.6	4982.6	4851.9	4307.8
57.5°	2458.2	2485.0	2664.5	3015.7	3669.2	4361.4	4736.2	5165.3	5216.5	5038.5	4394.4
60°	2290.5	2321.2	2501.5	2866.1	3558.2	4425.1	4956.6	5475.5	5506.2	5233.8	4470.8
62.5°	2118.9	2140.9	2304.7	2655.9	3385.0	4463.7	5151.9	5766.9	5787.3	5422.0	4516.5
65°	1874.8	1902.3	2062.2	2414.9	3135.4	4389.7	5226.7	5966.1	5978.7	5579.5	4494.4
67.5°	1609.4	1631.5	1748.0	2124.4	2807.8	4155.1	5196.0	6099.1	6139.3	5702.3	4394.4
69°	1421.2	1443.3	1544.1	1892.1	2564.5	3947.2	5152.7	6189.7	6225.1	5693.6	4266.9
70°	1274.8	1296.8	1392.1	1718.9	2374.0	3771.6	5084.2	6144.0	6166.9	5596.8	4142.5
72.5°	911.8	933.8	1011.8	1208.6	1798.4	3100.0	4659.8	5636.9	5667.6	5131.4	3702.3
75°	477.2	529.9	670.1	781.1	1065.3	2182.6	3874.0	4848.0	4892.9	4503.1	3044.8
77.5°	61.4	64.6	189.0	317.3	440.2	920.5	2751.9	3892.9	3963.7	3603.9	2105.5
80°	49.6	50.4	65.4	158.3	218.9	373.2	976.4	1822.0	1907.8	1601.6	774.0
82.5°	34.6	36.2	51.2	83.5	71.7	136.2	339.4	515.0	530.7	459.0	308.7
85°	19.7	19.7	24.4	32.3	22.8	51.2	70.1	74.8	66.9	66.1	49.6
87.5°	5.5	6.3	7.1	5.5	2.4	2.4	3.1	3.1	3.1	2.4	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°	1461.4	1461.4	1461.4	1461.4	1461.4	1461.4	1461.4	1461.4	1461.4	1461.4	1461.4
2.5°	1461.4	1459.8	1460.6	1463.8	1468.5	1485.8	1497.6	1499.2	1504.7	1525.2	1522.8
5°	1486.6	1496.0	1501.6	1518.1	1529.1	1552.7	1566.9	1568.5	1576.4	1597.6	1598.4
7.5°	1522.0	1537.8	1545.6	1564.5	1568.5	1579.5	1583.4	1579.5	1580.3	1599.2	1600.8
10°	1552.7	1572.4	1572.4	1577.1	1570.1	1570.8	1558.2	1546.4	1540.1	1556.7	1560.6
12.5°	1600.0	1605.5	1592.9	1578.7	1557.5	1538.6	1517.3	1498.4	1483.4	1492.9	1487.4
15°	1648.8	1640.1	1609.4	1572.4	1534.6	1502.3	1458.2	1430.7	1404.7	1410.2	1405.5
17.5°	1697.6	1669.3	1621.2	1559.8	1504.7	1443.3	1381.9	1338.6	1291.3	1287.4	1280.3
20°	1744.9	1703.9	1624.4	1533.8	1456.7	1370.1	1274.8	1200.8	1130.7	1112.6	1100.8
22.5°	1801.6	1742.5	1628.3	1508.6	1404.7	1286.6	1142.5	1027.5	952.0	926.8	914.9
25°	1874.0	1796.0	1639.3	1489.7	1352.0	1183.4	985.8	854.3	772.4	729.1	725.2
27.5°	1959.8	1860.6	1658.2	1465.3	1277.1	1045.7	823.6	686.6	599.2	555.1	540.9
30°	2072.4	1940.9	1675.6	1446.4	1171.6	895.3	653.5	500.8	396.8	368.5	353.5
32.5°	2285.8	2071.6	1697.6	1402.3	1047.2	730.7	463.0	308.7	237.8	218.9	218.9
35°	2633.0	2359.0	1752.7	1341.7	897.6	532.3	277.9	173.2	141.7	130.7	125.2
37.5°	2946.4	2648.8	1890.5	1248.0	715.7	315.0	159.1	107.1	96.8	98.4	98.4
40°	3167.7	2847.2	2042.5	1121.2	485.8	168.5	100.8	85.8	87.4	88.2	88.2
42.5°	3357.4	3016.5	2126.0	970.9	264.6	109.4	86.6	78.0	80.3	79.5	78.7
45°	3516.5	3154.3	2153.5	763.8	128.3	96.8	78.7	71.7	71.7	70.9	70.9
47.5°	3652.7	3276.3	2102.3	567.7	103.9	89.0	74.8	66.1	65.4	69.3	69.3
50°	3777.1	3370.8	1974.8	429.9	100.8	81.9	70.9	61.4	62.2	67.7	67.7
52.5°	3881.1	3426.7	1785.8	322.0	93.7	75.6	65.4	57.5	57.5	63.0	63.0
55°	3958.2	3426.7	1641.7	240.9	89.8	69.3	60.6	55.1	52.0	53.5	54.3
57.5°	3996.8	3362.2	1526.0	195.3	85.0	63.0	55.9	48.0	42.5	44.1	43.3
60°	3986.6	3325.2	1392.9	174.0	79.5	58.3	49.6	40.9	35.4	33.9	33.9
62.5°	3967.7	3283.4	1226.8	151.2	74.0	54.3	40.9	33.1	29.9	28.3	29.1
65°	3896.0	3148.0	1016.5	126.0	68.5	52.8	34.6	29.1	26.0	24.4	24.4
67.5°	3722.8	2903.9	768.5	106.3	63.8	42.5	29.9	25.2	22.0	20.5	20.5
69°	3551.1	2670.8	589.8	96.8	60.6	38.6	27.6	22.8	20.5	18.1	18.1
70°	3403.1	2490.5	462.2	90.6	58.3	37.0	26.8	22.0	19.7	17.3	17.3
72.5°	2897.6	1975.6	234.6	78.7	48.8	32.3	23.6	19.7	16.5	14.2	14.2
75°	2248.0	1361.4	155.1	62.2	37.8	29.1	21.3	17.3	14.2	11.8	11.0
77.5°	1352.7	532.3	111.0	40.2	24.4	22.8	17.3	14.2	11.8	9.4	9.4
80°	373.2	228.3	74.8	26.8	14.2	15.0	12.6	10.2	8.7	7.1	7.1
82.5°	224.4	148.0	49.6	17.3	9.4	9.4	7.1	7.1	5.5	5.5	5.5
85°	38.6	29.9	11.8	7.1	5.5	5.5	3.9	2.4	2.4	2.4	2.4
87.5°	2.4	2.4	2.4	3.1	3.1	2.4	1.6	0.8	0.0	0.0	0.0
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)