

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: P197337

Luminaire Tested: **NAV-AF-03-D-UNV-T4W-8030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197337
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24127)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-03-D-UNV-T4W-8030-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(3) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11801 lumens
Efficiency: N/A
Efficacy: 95.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

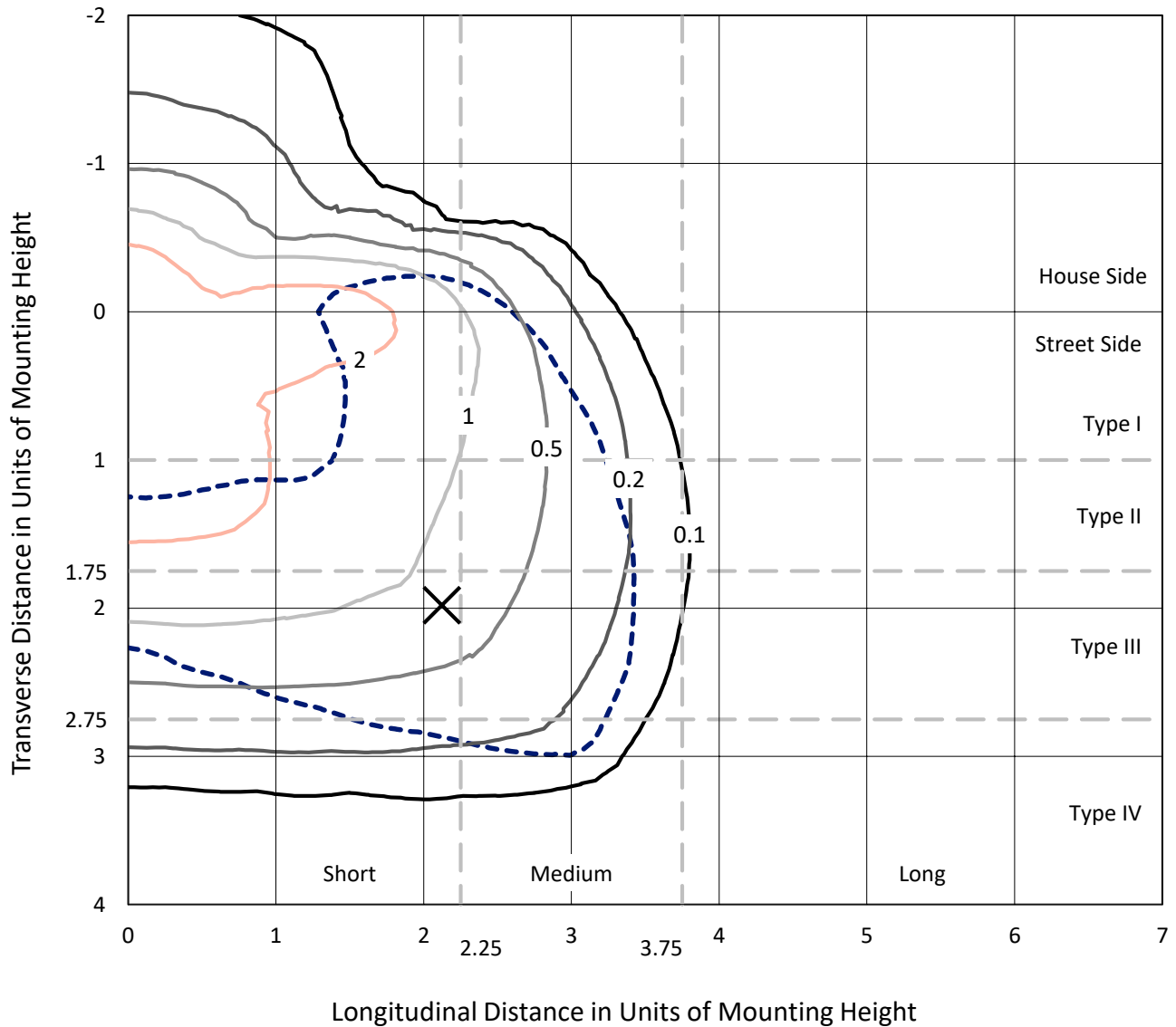
Input Watts (W): 124
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P197337
 CATALOG NUMBER: NAV-AF-03-D-UNV-T4W-8030-800

Iso-Footcandle Lines of Horizontal Illumination

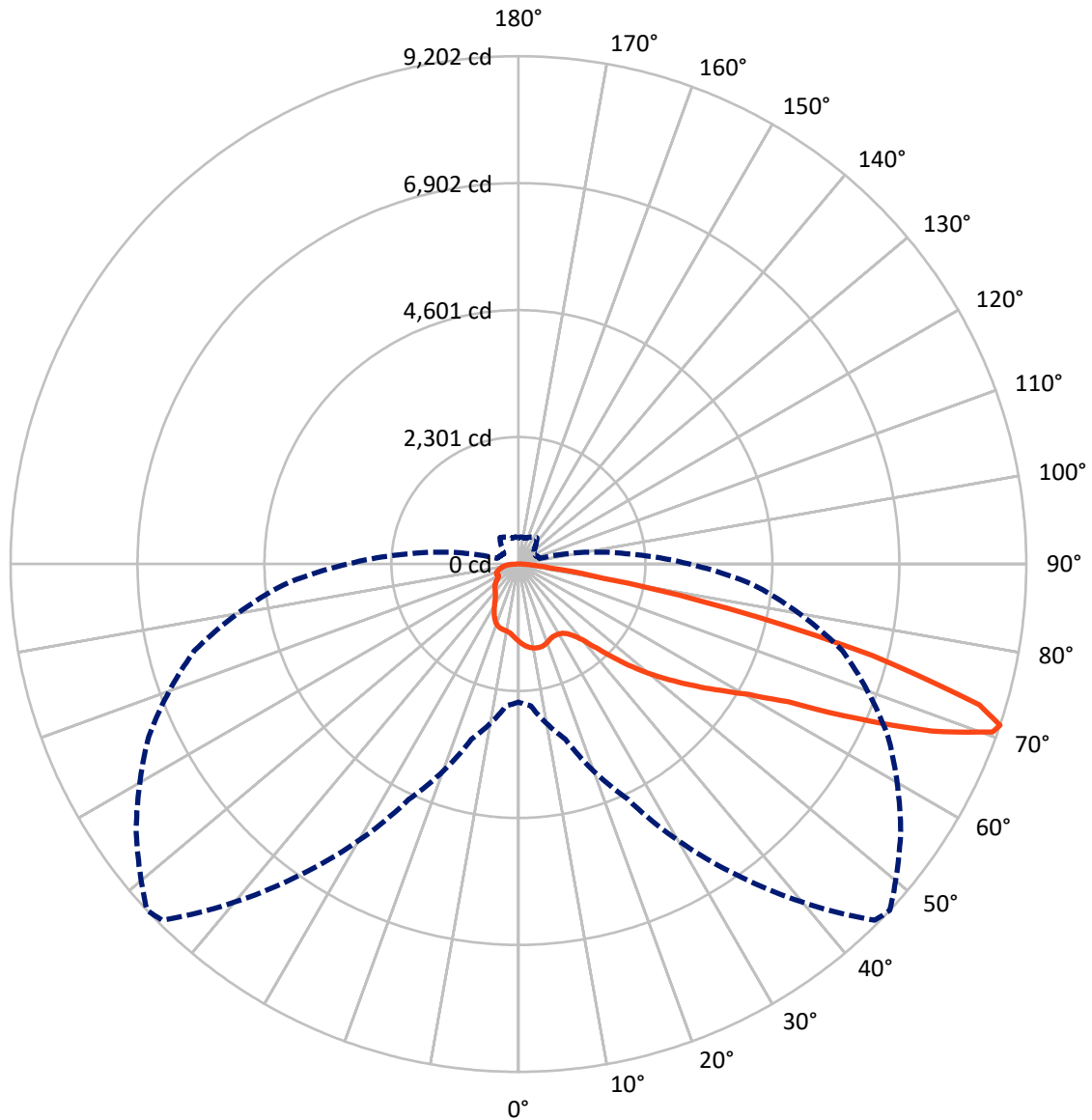
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P197337
CATALOG NUMBER: NAV-AF-03-D-UNV-T4W-8030-800

Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

REPORT NUMBER: P197337

CATALOG NUMBER: NAV-AF-03-D-UNV-T4W-8030-800

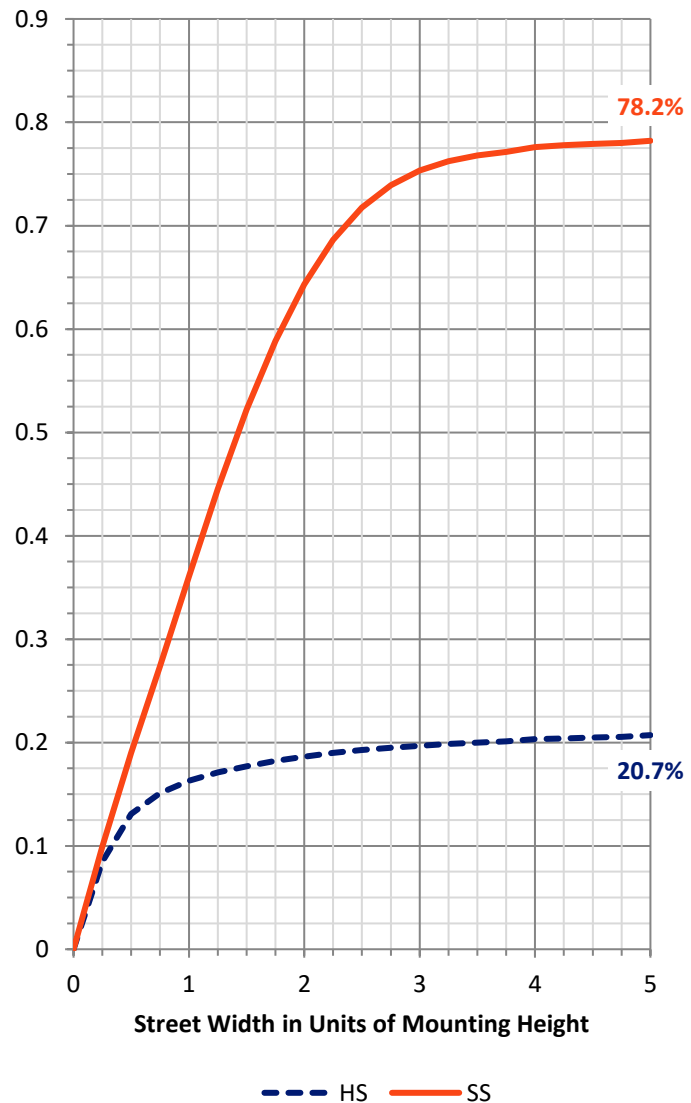
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2529.1	0.0	2529.1
	% Fixture	21.4	0.0	21.4
Street Side	Lumens	9271.9	0.0	9271.9
	% Fixture	78.6	0.0	78.6
Total	Lumens	11801.0	0.0	11801.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.0	1.1
10°-20°	392.0	3.3
20°-30°	582.5	4.9
30°-40°	836.4	7.1
40°-50°	1482.9	12.6
50°-60°	2537.5	21.5
60°-70°	3602.3	30.5
70°-80°	1973.0	16.7
80°-90°	260.4	2.2
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°	11801.0	100.0
0°-180°	11801.0	100.0



REPORT NUMBER: P197337

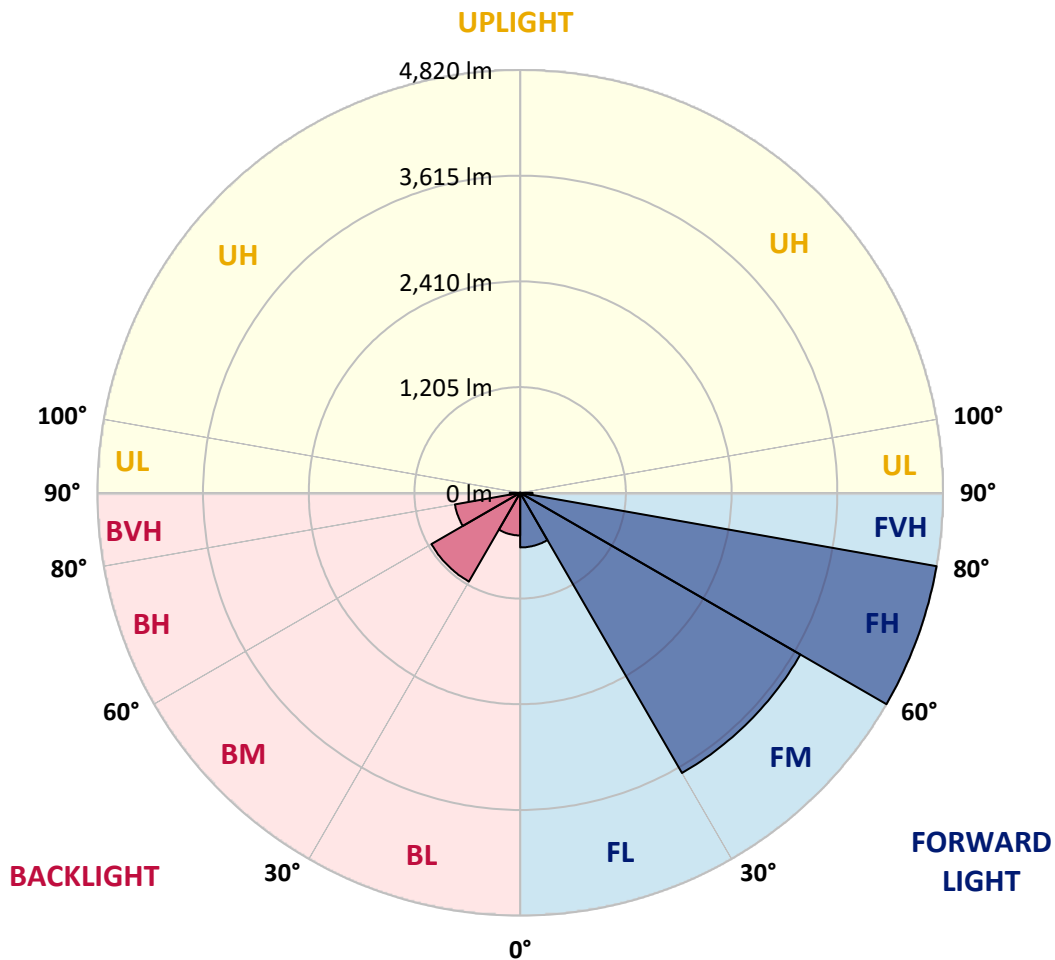
CATALOG NUMBER: NAV-AF-03-D-UNV-T4W-8030-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	622.8	5.3			
FM	(30°-60°)	3688.2	31.3			
FH	(60°-80°)	4819.6	40.8			G2/5000
FVH	(80°-90°)	141.3	1.2			G2/225
BL	(0°-30°)	485.7	4.1	B1/500		
BM	(30°-60°)	1168.6	9.9	B2/2500		
BH	(60°-80°)	755.7	6.4	B2/1000		G2/1000
BVH	(80°-90°)	119.2	1.0			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type IV Short





REPORT NUMBER: P197337

CATALOG NUMBER: NAV-AF-03-D-UNV-T4W-8030-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	1403.3	1403.3	1403.3	1403.3	1403.3	1403.3	1403.3	1403.3	1403.3	1403.3	1403.3
2.5°	1489.0	1485.9	1487.5	1482.1	1469.1	1455.3	1455.3	1440.8	1425.5	1410.2	1393.4
5°	1581.5	1576.9	1573.1	1556.3	1531.1	1502.8	1498.2	1469.1	1437.8	1406.4	1375.8
7.5°	1658.8	1654.2	1642.7	1612.1	1575.4	1533.3	1528.0	1489.8	1448.5	1404.9	1362.0
10°	1713.8	1710.8	1688.6	1649.6	1606.8	1557.1	1547.9	1508.9	1459.9	1405.6	1351.3
12.5°	1744.4	1739.8	1713.1	1667.2	1616.7	1566.2	1557.1	1519.6	1463.8	1404.1	1340.6
15°	1732.2	1729.9	1704.7	1658.0	1607.5	1563.9	1556.3	1518.1	1461.5	1398.7	1330.7
17.5°	1680.2	1685.5	1665.6	1619.8	1578.5	1547.9	1539.5	1503.5	1450.0	1385.7	1315.4
20°	1608.3	1614.4	1604.5	1557.8	1534.1	1514.2	1509.6	1480.6	1430.9	1366.6	1297.0
22.5°	1531.8	1537.2	1537.9	1494.3	1486.7	1479.0	1475.2	1454.6	1414.0	1355.2	1284.8
25°	1479.0	1485.2	1486.7	1448.5	1453.0	1455.3	1454.6	1440.0	1411.0	1355.2	1286.3
27.5°	1465.3	1468.3	1466.8	1431.6	1440.0	1453.0	1453.8	1450.8	1423.2	1370.5	1307.7
30°	1512.7	1514.2	1495.1	1442.3	1450.8	1467.6	1468.3	1466.8	1449.2	1410.2	1355.9
32.5°	1717.7	1716.1	1650.4	1514.2	1485.2	1491.3	1493.6	1507.3	1508.9	1476.0	1425.5
35°	2029.7	2028.9	1952.4	1719.9	1583.1	1550.9	1554.0	1575.4	1594.5	1572.3	1543.3
37.5°	2373.1	2375.3	2328.7	2013.6	1794.1	1660.3	1657.2	1673.3	1707.7	1715.4	1719.2
40°	2753.9	2765.4	2763.1	2350.9	2090.1	1846.9	1816.3	1798.0	1864.5	1906.5	1960.8
42.5°	3189.1	3186.0	3187.5	2721.0	2428.1	2140.6	2084.0	1998.3	2075.6	2148.2	2267.5
45°	3563.0	3575.3	3584.4	3114.9	2806.7	2476.3	2418.9	2262.9	2332.5	2441.1	2623.1
47.5°	3939.3	3917.9	3934.7	3553.1	3228.1	2859.4	2785.3	2575.0	2640.0	2792.9	3069.8
50°	4377.5	4367.6	4291.1	4125.1	3737.4	3247.9	3150.8	2900.7	2995.6	3199.8	3621.1
52.5°	4770.6	4717.0	4657.4	4574.8	4238.3	3641.0	3517.9	3239.5	3413.9	3667.0	4305.6
55°	4914.4	4878.4	4950.3	5057.4	4768.3	4041.8	3904.1	3634.9	3885.8	4201.6	5110.9
57.5°	5067.3	5079.5	5241.7	5458.1	5270.0	4469.3	4320.1	4102.9	4403.5	4799.6	6011.0
60°	5143.8	5192.7	5516.2	5922.3	5747.2	4938.1	4795.1	4640.6	4977.8	5460.4	6908.9
62.5°	5156.8	5222.6	5680.6	6085.2	6404.1	5656.2	5491.0	5323.5	5695.2	6190.7	7558.9
65°	4918.2	5019.1	5666.1	6285.6	7002.9	6856.1	6751.3	6459.2	6655.7	6833.9	7669.8
67.5°	4216.9	4327.0	5105.5	6203.0	7483.2	8101.1	8081.2	7649.9	7397.5	7082.5	6847.7
70°	3095.0	3183.7	3931.6	5302.9	7273.6	9078.5	9113.7	8421.5	7604.8	6554.8	5091.8
71°	2503.1	2579.5	3284.6	4707.9	6865.3	9129.0	9202.4	8456.0	7389.1	6078.3	4262.8
72.5°	1557.8	1600.6	2181.1	3553.1	5911.6	8608.9	8732.8	8015.5	6710.0	5137.7	3013.2
75°	588.1	604.9	809.1	1567.0	3528.6	6467.6	6617.5	6057.7	4714.0	2932.9	1261.1
77.5°	315.8	324.3	401.5	651.6	1414.0	3707.6	3900.3	3455.2	2261.4	1026.3	515.4
80°	211.8	217.2	277.6	386.2	650.0	1411.7	1572.3	1387.3	846.6	585.8	367.1
82.5°	136.9	140.0	188.9	253.9	419.9	496.3	566.7	591.9	528.4	419.9	221.8
85°	90.2	92.5	124.7	162.1	260.0	244.7	250.8	328.1	360.2	276.8	113.2
87.5°	52.0	53.5	74.9	83.4	117.0	91.8	99.4	156.0	214.1	180.5	65.0
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: P197337

CATALOG NUMBER: NAV-AF-03-D-UNV-T4W-8030-800

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1403.3	1403.3	1403.3	1403.3	1403.3	1403.3	1403.3	1403.3	1403.3	1403.3	1403.3
2.5°	1385.7	1379.6	1365.9	1357.5	1353.6	1352.1	1350.6	1353.6	1353.6	1352.1	1349.0
5°	1360.5	1349.0	1326.1	1310.0	1301.6	1299.3	1302.4	1306.2	1308.5	1308.5	1306.2
7.5°	1342.2	1325.3	1294.7	1272.6	1259.6	1255.7	1264.2	1277.9	1287.1	1291.7	1292.4
10°	1326.9	1303.9	1270.3	1247.3	1236.6	1235.1	1245.8	1263.4	1282.5	1290.9	1292.4
12.5°	1313.1	1287.1	1250.4	1229.0	1221.3	1225.1	1239.7	1255.7	1277.9	1290.2	1290.9
15°	1300.1	1273.3	1234.3	1212.1	1210.6	1216.7	1230.5	1243.5	1260.3	1275.6	1275.6
17.5°	1284.8	1255.7	1215.2	1194.6	1194.6	1199.9	1209.1	1216.0	1226.7	1241.2	1240.4
20°	1266.4	1236.6	1195.3	1173.9	1169.3	1166.3	1166.3	1167.8	1177.0	1190.0	1192.3
22.5°	1252.7	1222.1	1178.5	1152.5	1131.8	1112.0	1103.6	1100.5	1108.9	1121.1	1124.2
25°	1252.7	1222.1	1173.1	1129.6	1079.1	1040.8	1024.8	1020.2	1028.6	1040.1	1044.7
27.5°	1273.3	1242.7	1185.4	1108.9	1016.4	955.2	936.1	932.2	939.9	949.1	953.7
30°	1321.5	1291.7	1220.6	1085.2	946.8	866.5	845.1	841.2	845.1	848.9	854.2
32.5°	1401.8	1376.6	1277.9	1063.8	876.4	786.2	760.2	754.1	755.6	756.3	760.9
35°	1532.6	1521.1	1354.4	1038.5	809.9	720.4	693.6	681.4	680.6	684.5	689.8
37.5°	1732.9	1739.8	1453.0	1001.8	754.8	673.8	647.0	634.8	628.6	636.3	642.4
40°	2015.9	2032.0	1567.0	952.1	709.7	646.2	617.9	606.5	598.0	595.7	598.8
42.5°	2383.8	2379.2	1683.2	888.7	660.8	627.9	598.0	585.8	572.0	554.5	550.6
45°	2819.7	2753.9	1780.4	810.6	604.9	610.3	579.7	562.9	541.5	515.4	512.4
47.5°	3334.4	3153.1	1840.0	727.3	552.9	587.3	559.0	533.0	501.7	484.9	482.6
50°	3954.6	3620.4	1882.1	642.4	506.3	558.3	530.0	495.6	465.0	460.4	459.6
52.5°	4688.8	4171.8	1934.1	565.9	469.6	520.8	500.9	465.7	441.3	443.6	443.6
55°	5469.6	4742.3	1935.6	505.5	437.4	477.2	479.5	451.2	432.1	439.7	442.0
57.5°	6181.6	5240.9	1783.4	462.7	406.9	442.8	472.6	456.6	442.0	468.8	471.1
60°	6802.5	5624.8	1456.1	427.5	381.6	429.8	487.9	489.4	486.4	559.0	564.4
62.5°	7029.7	5628.6	1034.0	397.7	367.9	437.4	520.0	522.3	522.3	589.6	599.6
65°	6711.5	5159.8	688.3	380.1	358.7	454.3	546.0	536.1	512.4	559.0	548.3
67.5°	5590.4	4016.5	503.2	368.6	345.7	455.0	569.0	543.7	503.2	543.0	524.6
70°	3842.2	2555.8	421.4	357.9	330.4	435.1	581.2	541.5	489.4	506.3	481.8
71°	3092.7	2039.6	400.0	354.1	324.3	423.7	582.7	538.4	482.6	493.3	471.1
72.5°	2037.3	1256.5	374.0	345.7	315.1	403.8	578.9	531.5	473.4	474.2	459.6
75°	803.8	520.8	336.5	326.6	289.1	371.7	562.1	517.0	455.8	440.5	434.4
77.5°	406.1	340.3	296.0	299.8	258.5	338.8	538.4	493.3	431.3	410.7	406.1
80°	296.7	258.5	253.1	260.0	224.1	306.7	508.6	461.2	400.0	421.4	412.2
82.5°	180.5	157.5	198.1	214.9	187.4	273.8	473.4	423.7	360.2	331.9	321.2
85°	85.7	92.5	143.0	158.3	138.4	218.7	432.9	382.4	314.3	271.5	276.1
87.5°	42.1	51.2	81.8	94.8	91.0	160.6	326.6	296.7	247.8	204.2	199.6
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)