

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: P197260

Luminaire Tested: **NAV-AF-04-D-UNV-T3-8030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197260
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (p24135)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-04-D-UNV-T3-8030-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(4) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13120 lumens
Efficiency: N/A
Efficacy: 101.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

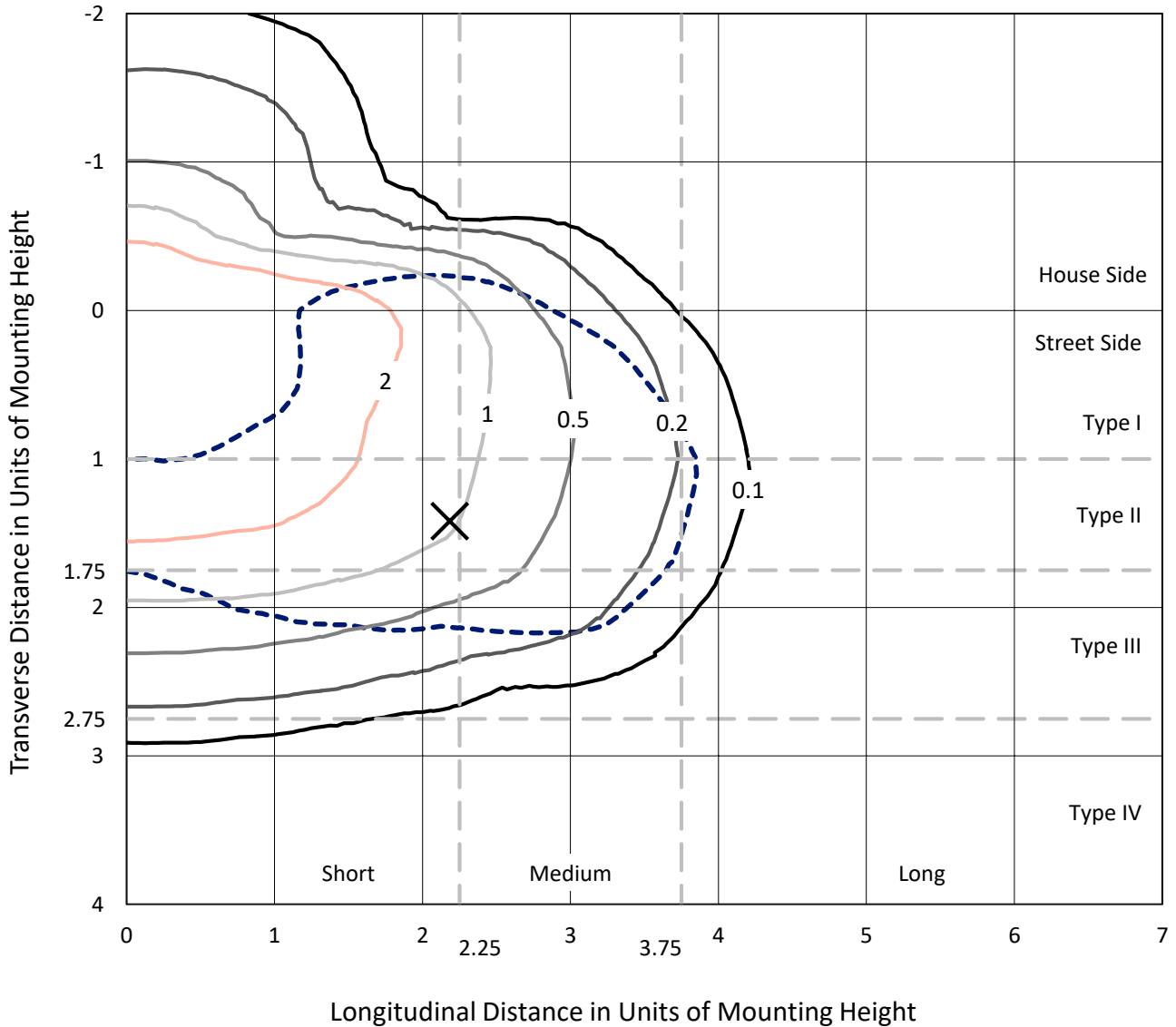
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P197260
 CATALOG NUMBER: NAV-AF-04-D-UNV-T3-8030-600

Iso-Footcandle Lines of Horizontal Illumination

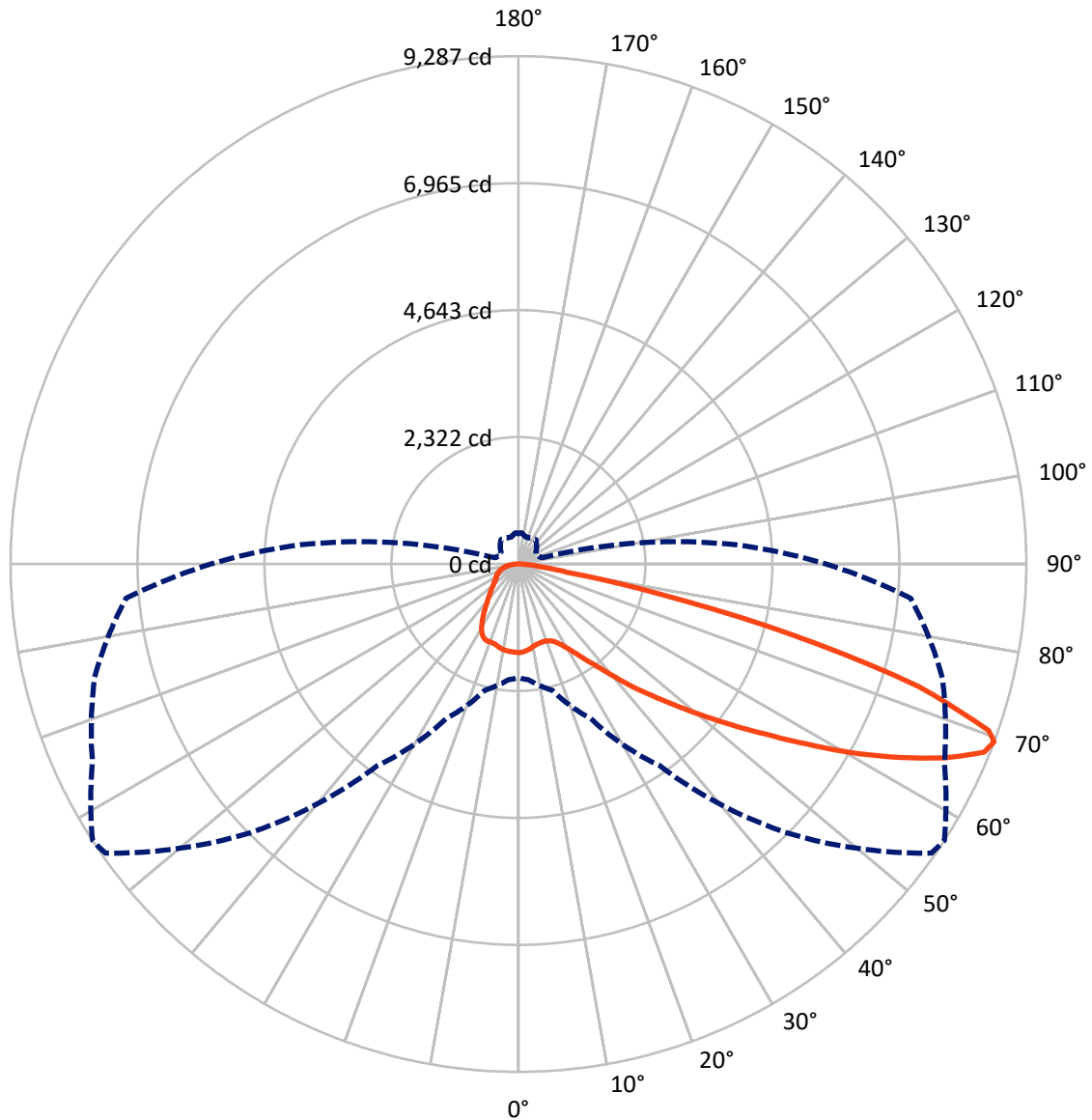
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.1 fc
 Type III - Short - Semi-Cutoff

REPORT NUMBER: P197260
CATALOG NUMBER: NAV-AF-04-D-UNV-T3-8030-600

Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P197260

CATALOG NUMBER: NAV-AF-04-D-UNV-T3-8030-600

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2895.1	0.0	2895.1
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	10224.9	0.0	10224.9
	% Fixture	77.9	0.0	77.9
Total	Lumens	13120.0	0.0	13120.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.8	1.2
10°-20°	431.5	3.3
20°-30°	717.8	5.5
30°-40°	1172.2	8.9
40°-50°	1978.4	15.1
50°-60°	3077.4	23.5
60°-70°	3665.9	27.9
70°-80°	1707.8	13.0
80°-90°	217.2	1.7
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°	13120.0	100.0
0°-180°	13120.0	100.0



REPORT NUMBER: P197260

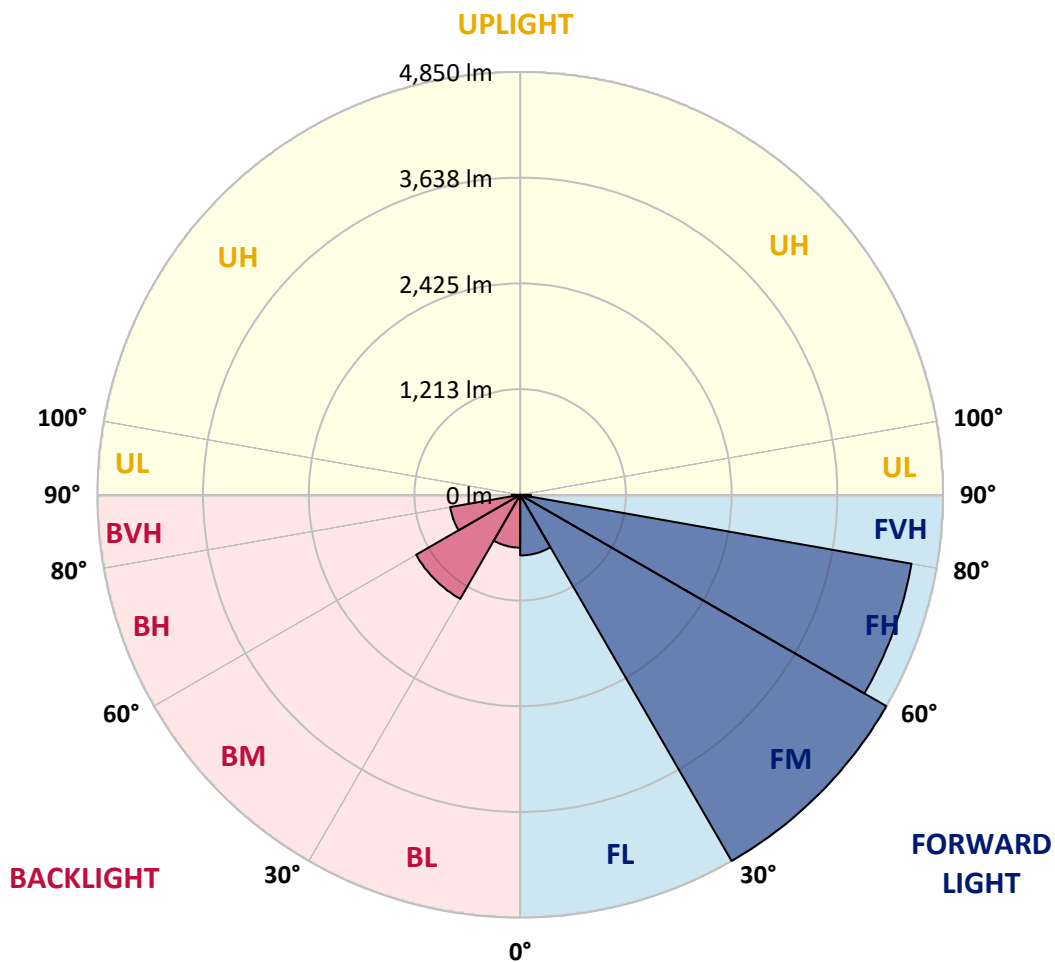
CATALOG NUMBER: NAV-AF-04-D-UNV-T3-8030-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	694.8	5.3			
FM	(30°-60°)	4850.1	37.0			
FH	(60°-80°)	4557.9	34.7			G2/5000
FVH	(80°-90°)	122.1	0.9			G2/225
BL	(0°-30°)	606.3	4.6	B2/1000		
BM	(30°-60°)	1377.9	10.5	B2/2500		
BH	(60°-80°)	815.8	6.2	B2/1000		G2/1000
BVH	(80°-90°)	95.1	0.7			G1/100
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 Short





REPORT NUMBER: P197260

CATALOG NUMBER: NAV-AF-04-D-UNV-T3-8030-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	1621.1	1621.1	1621.1	1621.1	1621.1	1621.1	1621.1	1621.1	1621.1	1621.1	1621.1
2.5°	1611.9	1611.9	1616.1	1616.1	1616.1	1614.4	1609.3	1611.0	1607.7	1605.1	1600.9
5°	1579.1	1580.8	1585.8	1587.5	1590.0	1590.9	1590.9	1590.0	1590.9	1590.9	1588.3
7.5°	1533.7	1535.4	1541.3	1544.7	1552.2	1558.9	1562.3	1562.3	1566.5	1569.9	1570.7
10°	1506.0	1506.0	1509.4	1509.4	1515.3	1518.6	1529.5	1528.7	1540.5	1551.4	1556.4
12.5°	1502.7	1502.7	1501.0	1495.1	1491.8	1490.9	1501.8	1503.5	1521.1	1540.5	1549.7
15°	1513.6	1513.6	1508.6	1496.8	1484.2	1478.3	1489.2	1492.6	1511.9	1534.6	1548.9
17.5°	1548.9	1548.0	1537.1	1513.6	1491.8	1482.5	1485.9	1489.2	1506.9	1532.9	1550.5
20°	1627.0	1627.0	1603.5	1560.6	1522.8	1501.0	1496.0	1498.5	1511.1	1535.4	1558.1
22.5°	1763.9	1766.4	1724.4	1653.9	1589.2	1543.0	1522.8	1525.3	1531.2	1554.7	1579.9
25°	1965.5	1958.8	1899.1	1799.2	1698.4	1619.4	1578.3	1580.8	1580.8	1602.6	1628.7
27.5°	2178.8	2180.5	2094.8	1987.3	1854.6	1737.0	1671.5	1670.7	1669.8	1690.8	1718.5
30°	2419.9	2420.7	2321.6	2197.3	2045.3	1894.9	1796.7	1795.8	1788.3	1814.3	1850.4
32.5°	2683.6	2682.8	2567.7	2427.5	2258.6	2088.1	1960.4	1959.6	1953.7	1989.0	2032.7
35°	2975.9	2975.9	2861.7	2688.7	2506.4	2316.6	2168.8	2167.9	2171.3	2219.1	2260.3
37.5°	3327.9	3335.4	3197.7	2987.7	2788.6	2586.2	2414.0	2409.0	2383.8	2464.4	2532.4
40°	3694.9	3715.9	3573.1	3327.9	3112.9	2903.7	2713.9	2710.5	2688.7	2774.4	2884.4
42.5°	4092.2	4140.1	3981.4	3731.1	3496.7	3270.8	3080.1	3070.9	2986.9	3120.4	3292.6
45°	4613.0	4644.1	4413.9	4187.2	3966.2	3708.4	3481.6	3432.0	3348.0	3519.4	3742.8
47.5°	4967.5	4952.3	4808.7	4656.7	4514.7	4267.8	3919.2	3856.2	3753.7	3980.5	4226.6
50°	5187.5	5198.5	5117.8	5110.3	5102.7	4930.5	4413.1	4337.5	4219.1	4487.9	4775.1
52.5°	5332.8	5283.3	5297.6	5468.9	5676.4	5594.1	4971.7	4887.7	4765.9	5034.7	5358.9
55°	5272.4	5206.9	5338.7	5676.4	6164.4	6182.9	5584.8	5498.3	5394.2	5615.9	6061.1
57.5°	5022.1	5054.8	5263.1	5732.7	6497.9	6710.4	6289.5	6201.4	5996.4	6221.5	6728.0
60°	4670.1	4736.5	5054.8	5643.6	6731.4	7121.1	7063.1	7004.3	6651.6	6811.2	7428.5
62.5°	4292.1	4357.7	4749.1	5491.6	6626.4	7484.8	7822.5	7786.3	7374.8	7379.0	7872.9
65°	3733.6	3760.5	4160.3	5076.7	6334.9	7813.2	8582.6	8550.7	8066.0	7863.6	7997.2
67.5°	2819.7	2853.3	3181.7	4007.4	5447.9	7635.1	9189.9	9184.9	8481.8	8043.4	7701.5
69°	2082.2	2123.4	2391.3	3111.2	4504.7	6956.5	9218.5	9286.5	8594.4	8024.9	7201.7
70°	1523.7	1570.7	1818.5	2469.5	3752.1	6207.2	8974.0	9120.2	8551.5	7908.1	6812.0
72.5°	647.6	663.6	785.4	1114.6	1903.3	3742.8	7350.4	7657.8	7723.3	7085.8	5321.9
75°	405.7	410.7	458.6	572.0	846.7	1548.0	4760.0	5179.1	5766.3	5497.5	3563.1
77.5°	305.7	309.9	337.7	393.9	525.8	577.9	2208.2	2633.2	3302.7	3233.8	1773.1
80°	234.3	236.9	255.3	286.4	370.4	362.0	716.5	900.4	1378.4	1216.2	627.4
82.5°	183.9	184.8	200.7	206.6	258.7	243.6	359.5	400.7	556.9	462.8	306.6
85°	163.0	165.5	181.4	151.2	165.5	147.0	197.4	214.2	295.7	278.9	115.9
87.5°	83.2	87.4	152.0	129.4	83.2	69.7	86.5	93.2	120.1	130.2	56.3
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: P197260
 CATALOG NUMBER: NAV-AF-04-D-UNV-T3-8030-600

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1621.1	1621.1	1621.1	1621.1	1621.1	1621.1	1621.1	1621.1	1621.1	1621.1	1621.1
2.5°	1601.8	1602.6	1605.1	1609.3	1616.1	1624.5	1634.5	1644.6	1650.5	1654.7	1653.0
5°	1588.3	1589.2	1594.2	1601.8	1610.2	1622.8	1639.6	1652.2	1661.4	1667.3	1666.5
7.5°	1571.5	1574.1	1584.1	1592.5	1604.3	1614.4	1627.8	1639.6	1648.8	1654.7	1653.9
10°	1558.9	1561.5	1574.1	1585.0	1595.1	1596.7	1594.2	1590.9	1590.0	1594.2	1592.5
12.5°	1553.1	1558.1	1569.9	1577.4	1573.2	1557.3	1538.8	1531.2	1528.7	1537.1	1537.9
15°	1554.7	1558.9	1569.0	1564.0	1541.3	1514.4	1504.4	1510.2	1515.3	1520.3	1521.1
17.5°	1558.9	1561.5	1564.0	1545.5	1513.6	1496.0	1492.6	1486.7	1471.6	1463.2	1462.4
20°	1566.5	1569.9	1565.7	1536.3	1507.7	1484.2	1443.9	1407.8	1373.3	1354.8	1347.3
22.5°	1592.5	1595.1	1582.5	1553.9	1510.2	1433.8	1352.3	1290.2	1237.2	1208.7	1197.8
25°	1643.8	1648.0	1630.3	1594.2	1480.0	1346.4	1231.4	1147.4	1081.0	1046.6	1037.3
27.5°	1733.7	1737.9	1718.5	1624.5	1409.4	1229.7	1090.3	1007.1	950.0	920.6	916.4
30°	1868.0	1873.9	1856.3	1623.6	1301.9	1081.0	952.5	903.8	871.0	850.9	850.0
32.5°	2054.5	2076.4	2004.1	1595.1	1169.2	930.7	848.3	831.6	815.6	802.2	802.2
35°	2291.4	2342.6	2150.3	1535.4	1023.1	828.2	790.4	774.4	754.3	740.0	738.3
37.5°	2574.4	2654.2	2254.4	1429.6	897.1	778.6	755.1	729.1	697.2	669.4	662.7
40°	2963.3	2981.8	2305.7	1257.4	803.0	751.8	722.4	689.6	649.3	618.2	614.8
42.5°	3353.9	3293.4	2295.6	1072.6	749.2	727.4	688.8	652.6	616.5	590.5	590.5
45°	3798.3	3565.6	2219.1	887.0	700.5	699.7	657.7	623.2	595.5	576.2	572.0
47.5°	4223.3	3810.0	2087.3	750.1	650.1	672.0	637.5	609.8	584.6	566.1	562.8
50°	4739.0	4093.1	1947.0	654.3	601.4	647.6	629.1	614.8	590.5	558.6	555.2
52.5°	5251.4	4424.0	1838.7	582.1	558.6	628.3	634.2	635.8	613.2	551.0	546.8
55°	5801.5	4777.6	1724.4	525.8	523.3	619.0	645.9	644.2	633.3	552.7	546.0
57.5°	6324.8	5132.9	1553.9	486.3	495.6	609.8	648.4	621.6	602.2	561.1	550.2
60°	6758.2	5426.9	1303.6	458.6	472.1	591.3	631.6	591.3	558.6	559.4	549.3
62.5°	6969.1	5509.2	997.0	426.7	452.7	561.1	607.3	568.6	538.4	562.8	556.9
65°	6808.6	5274.9	710.6	397.3	429.2	525.8	593.0	549.3	528.3	579.6	572.8
67.5°	6232.4	4636.5	515.7	371.3	406.5	489.7	566.1	531.7	518.2	592.2	577.0
69°	5620.1	4003.2	446.9	356.1	390.6	470.4	548.5	522.4	510.7	574.5	552.7
70°	5111.1	3515.2	412.4	346.9	377.1	459.5	535.0	516.6	503.1	553.5	527.5
72.5°	3664.7	2272.1	346.9	319.2	341.9	435.1	505.7	494.7	474.6	499.8	483.0
75°	2214.1	1186.0	294.8	290.6	304.9	401.5	471.2	457.8	437.6	440.1	431.7
77.5°	1017.2	547.6	246.9	257.0	266.3	359.5	429.2	414.1	395.6	388.9	389.7
80°	446.0	320.0	206.6	219.2	224.3	323.4	383.9	367.1	346.9	383.0	355.3
82.5°	241.1	185.6	161.3	169.7	183.9	281.4	333.5	311.6	292.3	340.2	274.7
85°	97.4	94.9	109.2	117.6	127.7	202.4	278.9	256.2	232.7	208.3	203.3
87.5°	42.0	45.4	53.8	57.1	68.0	126.0	187.3	163.8	164.6	141.1	138.6
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)