

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: P197265

Luminaire Tested: **NAV-AF-03-D-UNV-T3-8030-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197265  
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-03-D-UNV-T3-8030-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(3) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11945 lumens  
Efficiency: N/A  
Efficacy: 96.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G2

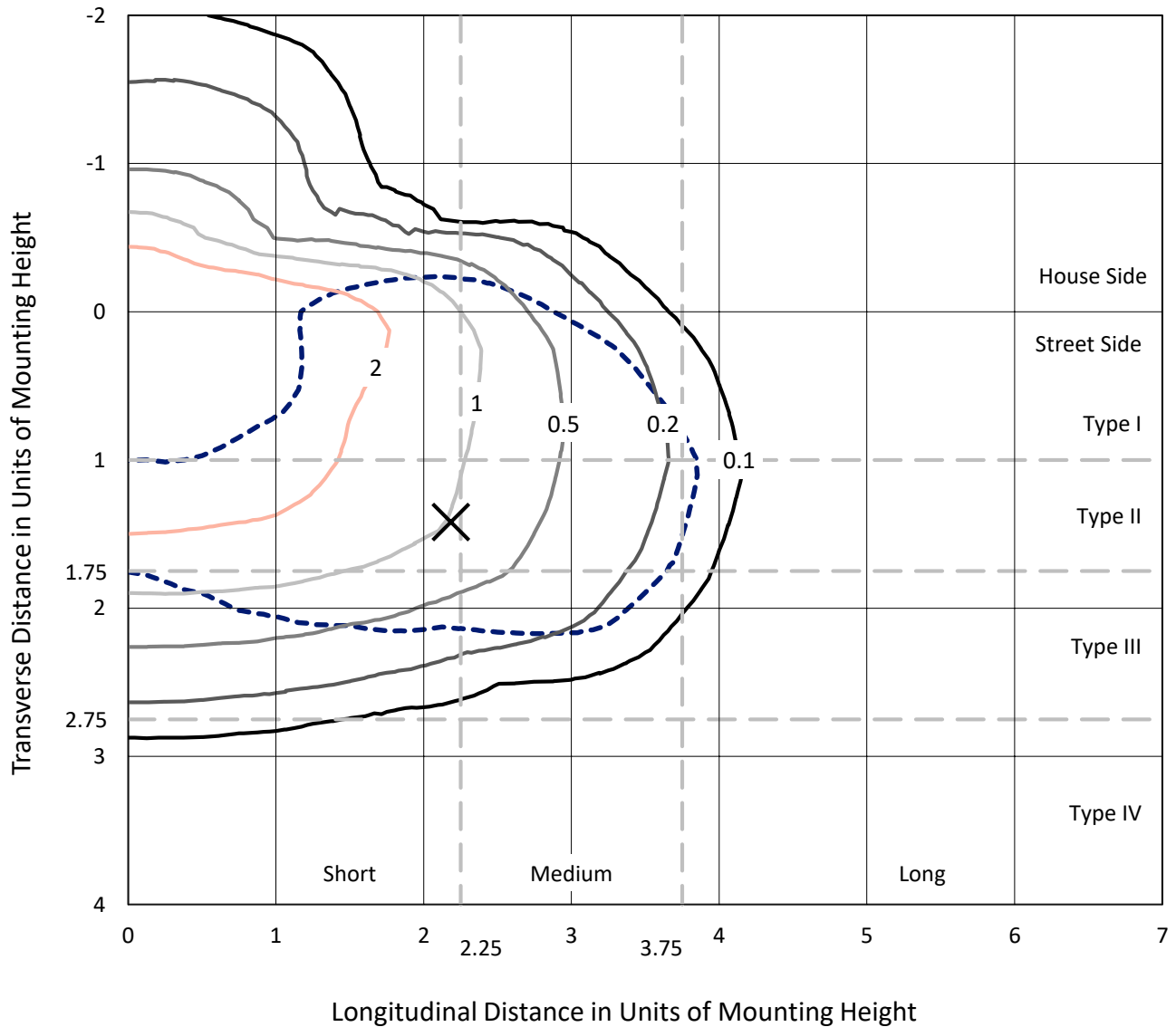
Input Watts (W): 124  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

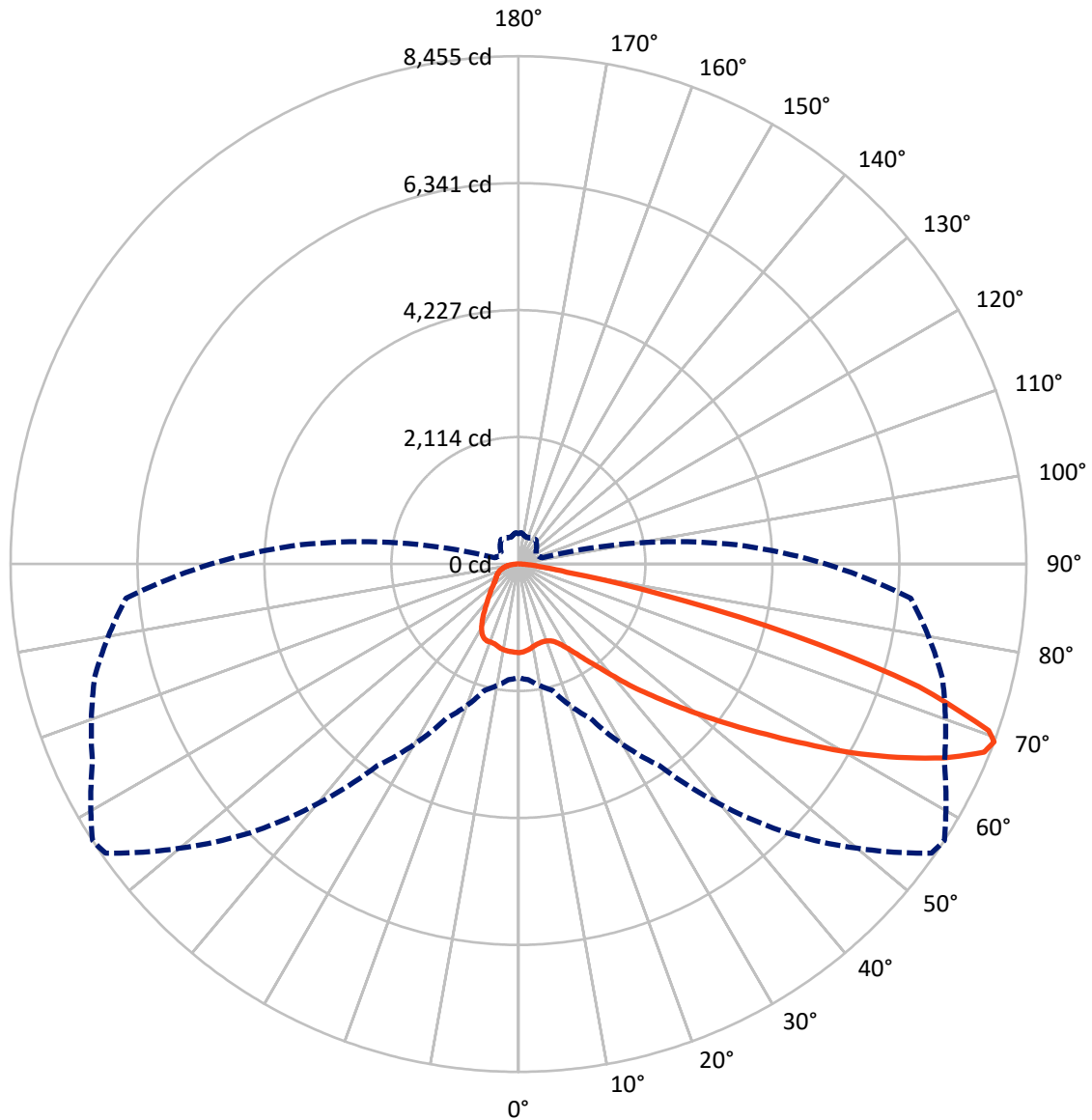
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.8 fc  
 Type III - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



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

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2635.8	0.0	2635.8
	% Fixture	22.1	0.0	22.1
<b>Street Side</b>	Lumens	9309.2	0.0	9309.2
	% Fixture	77.9	0.0	77.9
<b>Total</b>	Lumens	11945.0	0.0	11945.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	138.2	1.2
10°-20°	392.9	3.3
20°-30°	653.5	5.5
30°-40°	1067.2	8.9
40°-50°	1801.2	15.1
50°-60°	2801.8	23.5
60°-70°	3337.6	27.9
70°-80°	1554.9	13.0
80°-90°	197.8	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°	11945.0	100.0
0°-180°	11945.0	100.0



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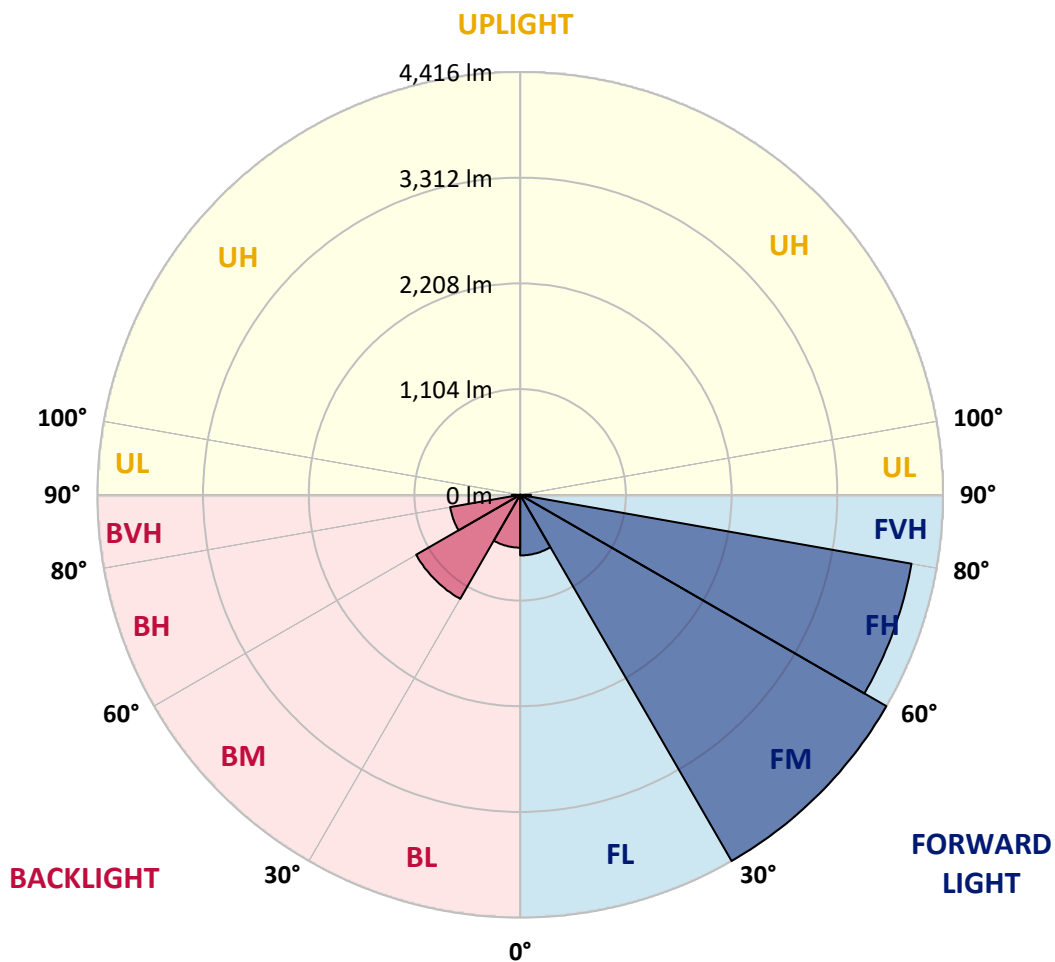
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	632.6	5.3			
FM	(30°-60°)	4415.7	37.0			
FH	(60°-80°)	4149.7	34.7			G2/5000
FVH	(80°-90°)	111.2	0.9			G2/225
BL	(0°-30°)	552.0	4.6	B2/1000		
BM	(30°-60°)	1254.5	10.5	B2/2500		
BH	(60°-80°)	742.7	6.2	B2/1000		G2/1000
BVH	(80°-90°)	86.6	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	1475.9	1475.9	1475.9	1475.9	1475.9	1475.9	1475.9	1475.9	1475.9	1475.9	1475.9
2.5°	1467.5	1467.5	1471.3	1471.3	1471.3	1469.8	1465.2	1466.7	1463.7	1461.4	1457.6
5°	1437.7	1439.2	1443.8	1445.3	1447.6	1448.4	1448.4	1447.6	1448.4	1448.4	1446.1
7.5°	1396.4	1397.9	1403.3	1406.3	1413.2	1419.3	1422.4	1422.4	1426.2	1429.3	1430.0
10°	1371.2	1371.2	1374.2	1374.2	1379.6	1382.6	1392.6	1391.8	1402.5	1412.4	1417.0
12.5°	1368.1	1368.1	1366.6	1361.2	1358.2	1357.4	1367.3	1368.9	1384.9	1402.5	1410.9
15°	1378.0	1378.0	1373.4	1362.7	1351.3	1345.9	1355.9	1358.9	1376.5	1397.2	1410.2
17.5°	1410.2	1409.4	1399.4	1378.0	1358.2	1349.7	1352.8	1355.9	1371.9	1395.6	1411.7
20°	1481.3	1481.3	1459.9	1420.9	1386.4	1366.6	1362.0	1364.3	1375.7	1397.9	1418.6
22.5°	1605.9	1608.2	1570.0	1505.7	1446.9	1404.8	1386.4	1388.7	1394.1	1415.5	1438.4
25°	1789.5	1783.3	1729.0	1638.0	1546.3	1474.4	1436.9	1439.2	1439.2	1459.1	1482.8
27.5°	1983.7	1985.2	1907.2	1809.3	1688.5	1581.5	1521.8	1521.0	1520.3	1539.4	1564.6
30°	2203.2	2203.9	2113.7	2000.5	1862.1	1725.2	1635.7	1635.0	1628.1	1651.8	1684.7
32.5°	2443.3	2442.5	2337.8	2210.1	2056.3	1901.1	1784.9	1784.1	1778.8	1810.9	1850.6
35°	2709.4	2709.4	2605.4	2447.9	2281.9	2109.1	1974.5	1973.8	1976.8	2020.4	2057.9
37.5°	3029.8	3036.7	2911.3	2720.1	2538.9	2354.6	2197.8	2193.2	2170.3	2243.7	2305.6
40°	3364.0	3383.1	3253.1	3029.8	2834.1	2643.7	2470.8	2467.8	2447.9	2525.9	2626.1
42.5°	3725.7	3769.3	3624.8	3396.9	3183.6	2977.8	2804.3	2795.8	2719.4	2841.0	2997.7
45°	4199.9	4228.2	4018.6	3812.2	3611.0	3376.3	3169.8	3124.7	3048.2	3204.2	3407.6
47.5°	4522.6	4508.8	4378.1	4239.6	4110.4	3885.6	3568.2	3510.9	3417.6	3624.0	3848.1
50°	4722.9	4732.9	4659.5	4652.6	4645.7	4488.9	4017.9	3949.0	3841.2	4085.9	4347.5
52.5°	4855.2	4810.1	4823.1	4979.1	5168.0	5093.1	4526.4	4449.9	4339.1	4583.8	4879.0
55°	4800.2	4740.5	4860.6	5168.0	5612.3	5629.1	5084.7	5005.9	4911.1	5113.0	5518.3
57.5°	4572.3	4602.1	4791.8	5219.3	5915.9	6109.4	5726.3	5646.0	5459.4	5664.3	6125.5
60°	4251.9	4312.3	4602.1	5138.2	6128.5	6483.3	6430.6	6377.1	6055.9	6201.2	6763.2
62.5°	3907.7	3967.4	4323.8	4999.8	6032.9	6814.5	7121.9	7089.0	6714.3	6718.1	7167.8
65°	3399.2	3423.7	3787.7	4622.0	5767.6	7113.5	7814.0	7784.9	7343.7	7159.4	7281.0
67.5°	2567.2	2597.8	2896.8	3648.5	4960.0	6951.4	8366.9	8362.3	7722.2	7323.0	7011.8
69°	1895.8	1933.2	2177.2	2832.5	4101.2	6333.5	8392.9	8454.8	7824.7	7306.2	6556.8
70°	1387.2	1430.0	1655.6	2248.3	3416.0	5651.3	8170.3	8303.4	7785.7	7199.9	6201.9
72.5°	589.6	604.1	715.0	1014.8	1732.9	3407.6	6692.1	6972.0	7031.7	6451.2	4845.3
75°	369.4	374.0	417.5	520.8	770.8	1409.4	4333.7	4715.3	5249.8	5005.1	3244.0
77.5°	278.4	282.2	307.4	358.7	478.7	526.1	2010.5	2397.4	3006.9	2944.2	1614.3
80°	213.4	215.7	232.5	260.8	337.2	329.6	652.3	819.8	1254.9	1107.3	571.3
82.5°	167.5	168.2	182.8	188.1	235.5	221.8	327.3	364.8	507.0	421.4	279.1
85°	148.4	150.7	165.2	137.7	150.7	133.8	179.7	195.0	269.2	253.9	105.5
87.5°	75.7	79.5	138.4	117.8	75.7	63.5	78.8	84.9	109.4	118.5	51.2
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°	1475.9	1475.9	1475.9	1475.9	1475.9	1475.9	1475.9	1475.9	1475.9	1475.9	1475.9
2.5°	1458.3	1459.1	1461.4	1465.2	1471.3	1479.0	1488.2	1497.3	1502.7	1506.5	1505.0
5°	1446.1	1446.9	1451.4	1458.3	1466.0	1477.5	1492.7	1504.2	1512.6	1518.0	1517.2
7.5°	1430.8	1433.1	1442.3	1449.9	1460.6	1469.8	1482.0	1492.7	1501.2	1506.5	1505.7
10°	1419.3	1421.6	1433.1	1443.0	1452.2	1453.7	1451.4	1448.4	1447.6	1451.4	1449.9
12.5°	1414.0	1418.6	1429.3	1436.2	1432.3	1417.8	1401.0	1394.1	1391.8	1399.4	1400.2
15°	1415.5	1419.3	1428.5	1423.9	1403.3	1378.8	1369.6	1375.0	1379.6	1384.2	1384.9
17.5°	1419.3	1421.6	1423.9	1407.1	1378.0	1362.0	1358.9	1353.6	1339.8	1332.2	1331.4
20°	1426.2	1429.3	1425.4	1398.7	1372.7	1351.3	1314.6	1281.7	1250.3	1233.5	1226.6
22.5°	1449.9	1452.2	1440.7	1414.7	1375.0	1305.4	1231.2	1174.6	1126.4	1100.4	1090.5
25°	1496.6	1500.4	1484.3	1451.4	1347.4	1225.9	1121.1	1044.6	984.2	952.8	944.4
27.5°	1578.4	1582.2	1564.6	1479.0	1283.2	1119.6	992.6	916.9	864.9	838.1	834.3
30°	1700.8	1706.1	1690.0	1478.2	1185.3	984.2	867.2	822.8	793.0	774.7	773.9
32.5°	1870.5	1890.4	1824.6	1452.2	1064.5	847.3	772.4	757.1	742.5	730.3	730.3
35°	2086.2	2132.8	1957.7	1397.9	931.4	754.0	719.6	705.1	686.7	673.7	672.2
37.5°	2343.9	2416.5	2052.5	1301.6	816.7	708.9	687.5	663.8	634.7	609.5	603.4
40°	2698.0	2714.8	2099.2	1144.8	731.1	684.4	657.7	627.8	591.1	562.8	559.8
42.5°	3053.6	2998.5	2090.0	976.6	682.1	662.3	627.1	594.2	561.3	537.6	537.6
45°	3458.1	3246.3	2020.4	807.6	637.8	637.0	598.8	567.4	542.2	524.6	520.8
47.5°	3845.0	3468.8	1900.3	682.9	591.9	611.8	580.4	555.2	532.2	515.4	512.4
50°	4314.6	3726.5	1772.6	595.7	547.5	589.6	572.8	559.8	537.6	508.5	505.5
52.5°	4781.1	4027.8	1674.0	530.0	508.5	572.0	577.4	578.9	558.2	501.7	497.8
55°	5282.0	4349.8	1570.0	478.7	476.4	563.6	588.1	586.5	576.6	503.2	497.1
57.5°	5758.4	4673.2	1414.7	442.8	451.2	555.2	590.4	565.9	548.3	510.8	500.9
60°	6153.0	4940.9	1186.9	417.5	429.8	538.4	575.1	538.4	508.5	509.3	500.1
62.5°	6344.9	5015.8	907.7	388.5	412.2	510.8	552.9	517.7	490.2	512.4	507.0
65°	6198.9	4802.5	647.0	361.7	390.8	478.7	539.9	500.1	481.0	527.7	521.5
67.5°	5674.3	4221.3	469.5	338.0	370.1	445.8	515.4	484.1	471.8	539.1	525.4
69°	5116.8	3644.7	406.8	324.2	355.6	428.2	499.4	475.7	465.0	523.1	503.2
70°	4653.4	3200.4	375.5	315.8	343.4	418.3	487.1	470.3	458.1	504.0	480.2
72.5°	3336.5	2068.6	315.8	290.6	311.2	396.1	460.4	450.4	432.1	455.0	439.7
75°	2015.8	1079.8	268.4	264.6	277.6	365.5	429.0	416.8	398.4	400.7	393.1
77.5°	926.1	498.6	224.8	234.0	242.4	327.3	390.8	377.0	360.2	354.1	354.8
80°	406.1	291.4	188.1	199.6	204.2	294.4	349.5	334.2	315.8	348.7	323.5
82.5°	219.5	169.0	146.8	154.5	167.5	256.2	303.6	283.7	266.1	309.7	250.1
85°	88.7	86.4	99.4	107.1	116.2	184.3	253.9	233.2	211.8	189.7	185.1
87.5°	38.2	41.3	48.9	52.0	61.9	114.7	170.5	149.1	149.9	128.5	126.2
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)