

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: P197259

Luminaire Tested: **NAV-AF-03-D-UNV-T3-8030-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197259  
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-T3-8030-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(3) 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: 9741 lumens  
Efficiency: N/A  
Efficacy: 101.5 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

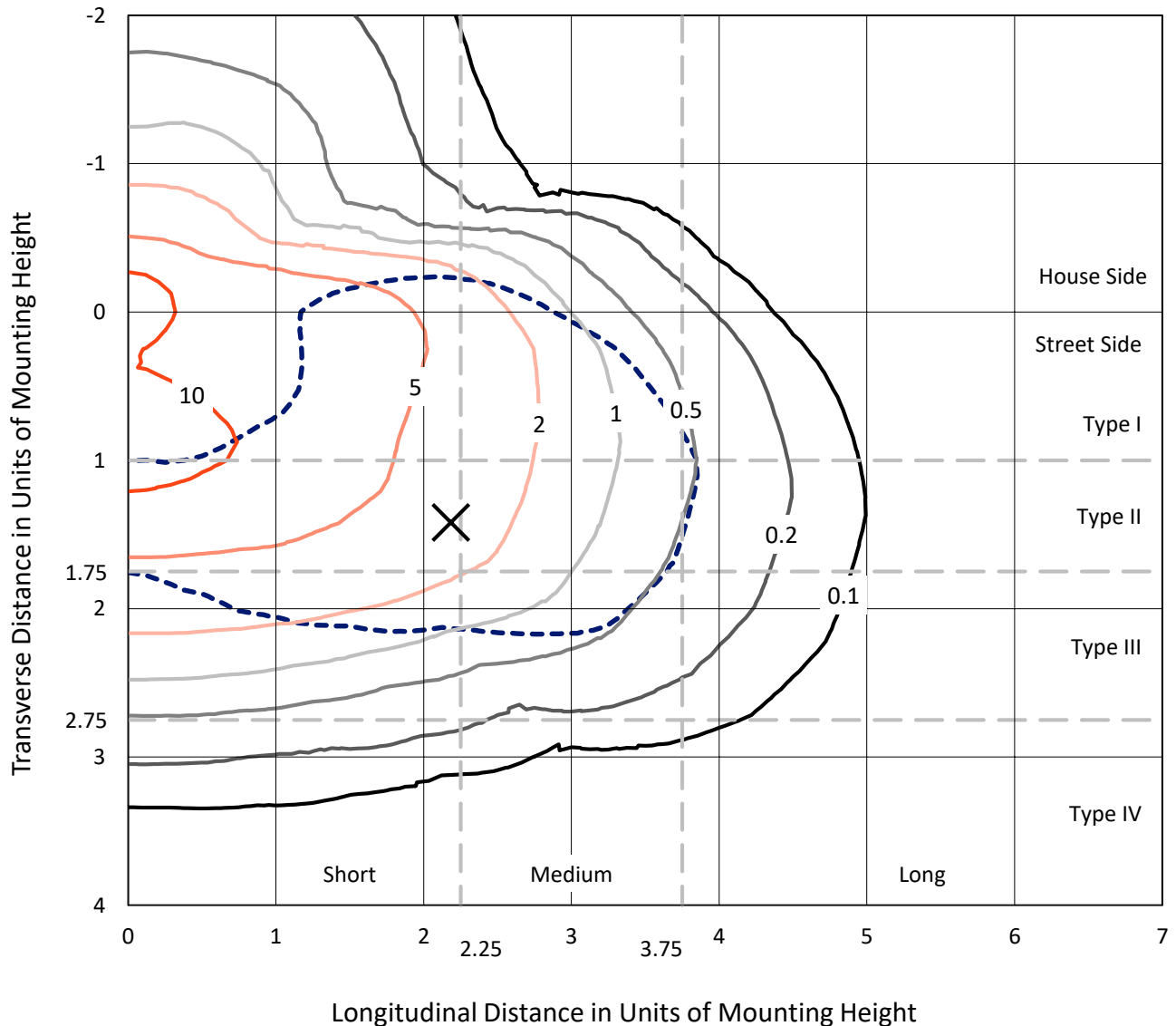
Input Watts (W): 96  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

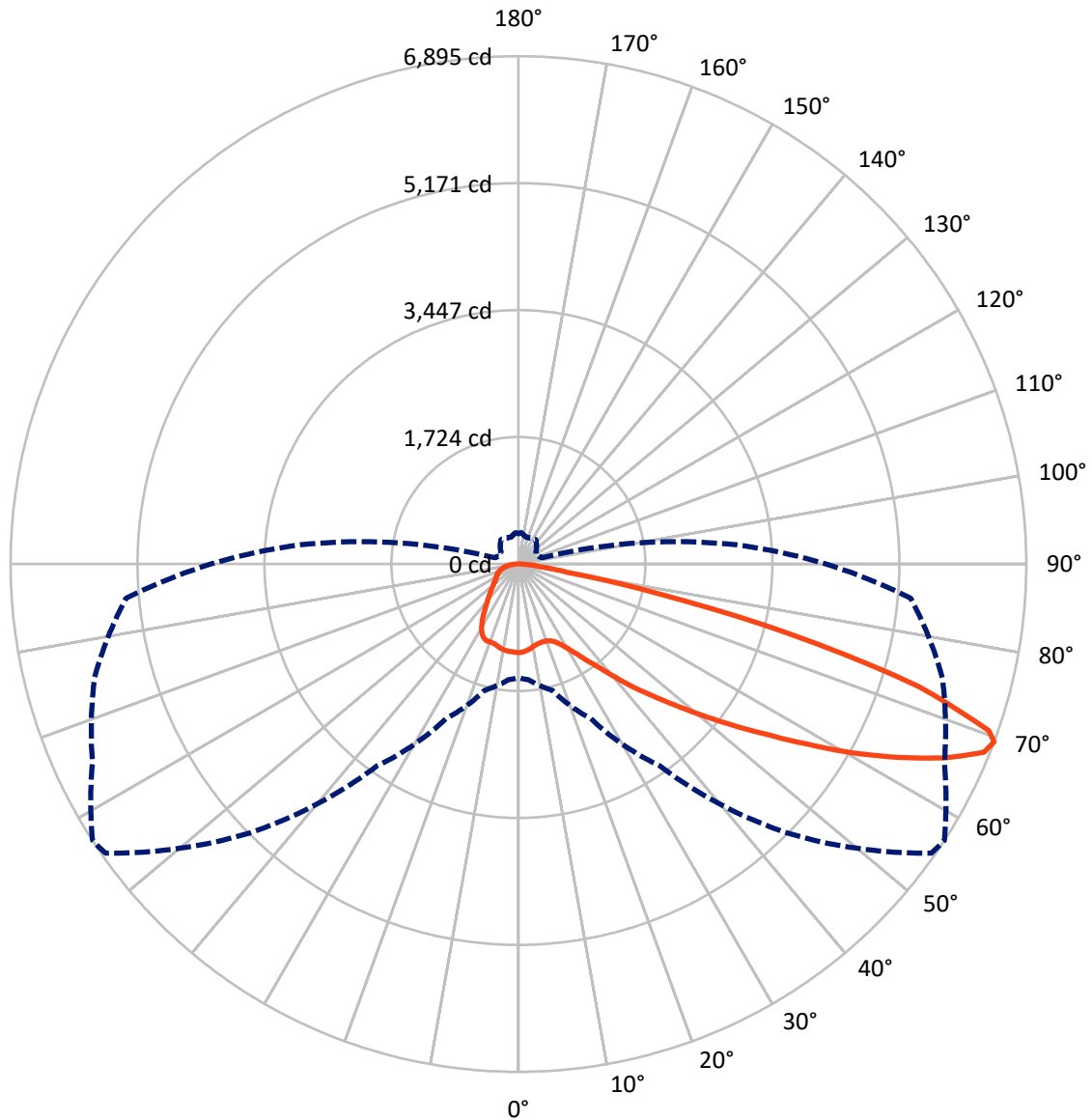
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.3 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	2149.5	0.0	2149.5
	% Fixture	22.1	0.0	22.1
<b>Street Side</b>	Lumens	7591.5	0.0	7591.5
	% Fixture	77.9	0.0	77.9
<b>Total</b>	Lumens	9741.0	0.0	9741.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.7	1.2
10°-20°	320.4	3.3
20°-30°	532.9	5.5
30°-40°	870.3	8.9
40°-50°	1468.8	15.1
50°-60°	2284.9	23.5
60°-70°	2721.8	27.9
70°-80°	1268.0	13.0
80°-90°	161.3	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°	9741.0	100.0
0°-180°	9741.0	100.0



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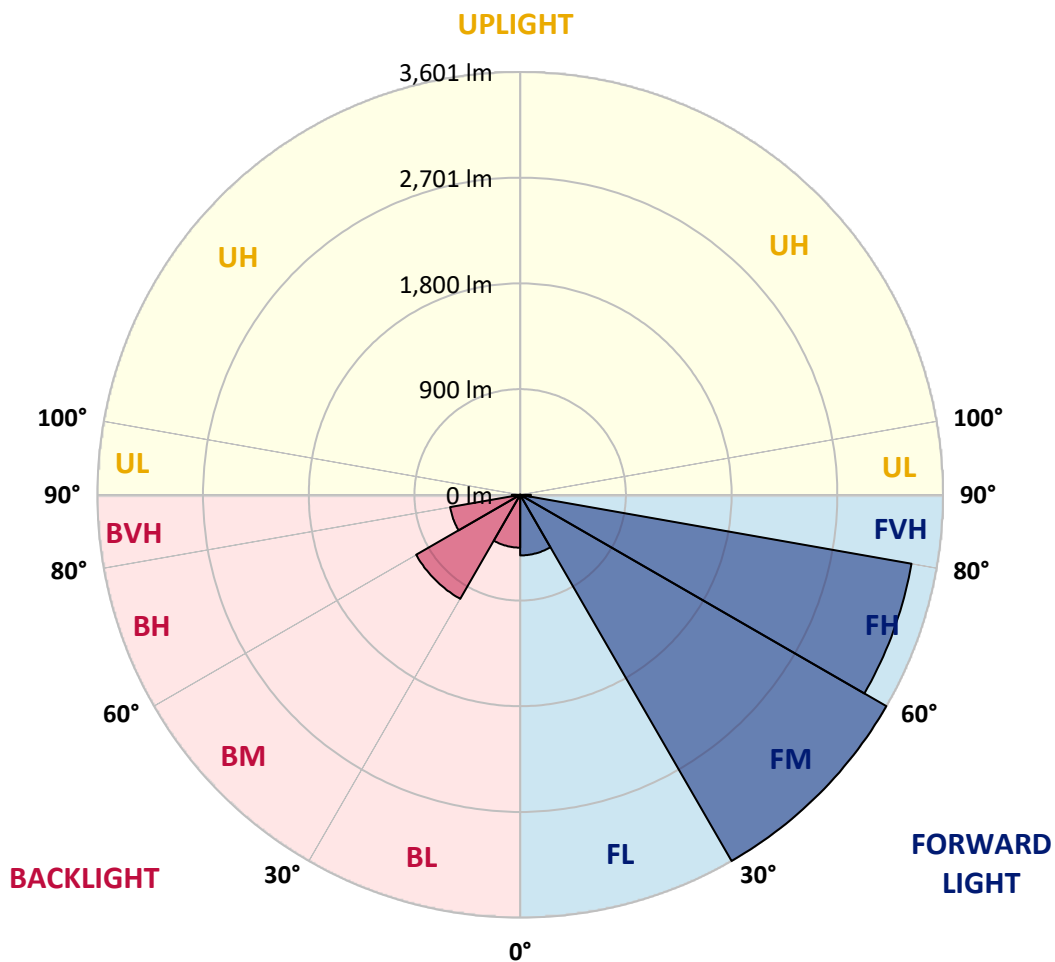
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	515.9	5.3			
FM	(30°-60°)	3600.9	37.0			
FH	(60°-80°)	3384.0	34.7			G2/5000
FVH	(80°-90°)	90.7	0.9			G1/100
BL	(0°-30°)	450.1	4.6	B1/500		
BM	(30°-60°)	1023.0	10.5	B2/2500		
BH	(60°-80°)	605.7	6.2	B2/1000		G2/1000
BVH	(80°-90°)	70.6	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°	1203.6	1203.6	1203.6	1203.6	1203.6	1203.6	1203.6	1203.6	1203.6	1203.6	1203.6
2.5°	1196.7	1196.7	1199.9	1199.9	1199.9	1198.6	1194.9	1196.1	1193.6	1191.7	1188.6
5°	1172.4	1173.7	1177.4	1178.7	1180.5	1181.1	1181.1	1180.5	1181.1	1181.1	1179.3
7.5°	1138.7	1140.0	1144.4	1146.8	1152.5	1157.4	1159.9	1159.9	1163.1	1165.6	1166.2
10°	1118.2	1118.2	1120.7	1120.7	1125.0	1127.5	1135.6	1135.0	1143.7	1151.8	1155.6
12.5°	1115.7	1115.7	1114.4	1110.1	1107.6	1106.9	1115.0	1116.3	1129.4	1143.7	1150.6
15°	1123.8	1123.8	1120.0	1111.3	1101.9	1097.6	1105.7	1108.2	1122.5	1139.4	1150.0
17.5°	1150.0	1149.3	1141.2	1123.8	1107.6	1100.7	1103.2	1105.7	1118.8	1138.1	1151.2
20°	1208.0	1208.0	1190.5	1158.7	1130.6	1114.4	1110.7	1112.5	1121.9	1140.0	1156.8
22.5°	1309.6	1311.5	1280.3	1227.9	1179.9	1145.6	1130.6	1132.5	1136.9	1154.3	1173.0
25°	1459.3	1454.3	1410.0	1335.8	1261.0	1202.3	1171.8	1173.7	1173.7	1189.9	1209.2
27.5°	1617.7	1618.9	1555.3	1475.5	1377.0	1289.7	1241.0	1240.4	1239.8	1255.4	1275.9
30°	1796.7	1797.3	1723.7	1631.4	1518.5	1406.9	1333.9	1333.3	1327.7	1347.0	1373.8
32.5°	1992.5	1991.9	1906.4	1802.3	1676.9	1550.3	1455.5	1454.9	1450.6	1476.7	1509.2
35°	2209.5	2209.5	2124.7	1996.2	1860.9	1720.0	1610.2	1609.6	1612.1	1647.6	1678.2
37.5°	2470.8	2476.4	2374.1	2218.2	2070.4	1920.1	1792.3	1788.6	1769.8	1829.7	1880.2
40°	2743.3	2758.9	2652.9	2470.8	2311.2	2155.9	2014.9	2012.4	1996.2	2059.8	2141.5
42.5°	3038.3	3073.8	2956.0	2770.1	2596.1	2428.4	2286.8	2280.0	2217.6	2316.8	2444.6
45°	3424.9	3448.0	3277.1	3108.8	2944.8	2753.3	2584.9	2548.1	2485.8	2613.0	2778.9
47.5°	3688.1	3676.9	3570.3	3457.4	3352.0	3168.6	2909.8	2863.1	2787.0	2955.4	3138.1
50°	3851.5	3859.6	3799.7	3794.1	3788.5	3660.7	3276.5	3220.4	3132.5	3332.0	3545.3
52.5°	3959.4	3922.6	3933.2	4060.4	4214.5	4153.3	3691.2	3628.9	3538.4	3738.0	3978.7
55°	3914.5	3865.8	3963.8	4214.5	4576.8	4590.5	4146.5	4082.2	4004.9	4169.6	4500.1
57.5°	3728.7	3753.0	3907.6	4256.2	4824.4	4982.1	4669.7	4604.2	4452.1	4619.2	4995.2
60°	3467.4	3516.6	3753.0	4190.1	4997.7	5287.1	5244.1	5200.4	4938.5	5057.0	5515.3
62.5°	3186.7	3235.4	3526.0	4077.3	4919.8	5557.1	5807.8	5781.0	5475.4	5478.5	5845.2
65°	2772.0	2792.0	3088.8	3769.2	4703.4	5801.0	6372.2	6348.5	5988.7	5838.4	5937.5
67.5°	2093.5	2118.5	2362.3	2975.3	4044.8	5668.7	6823.1	6819.3	6297.4	5971.8	5718.0
69°	1546.0	1576.5	1775.5	2309.9	3344.5	5164.9	6844.3	6894.8	6380.9	5958.1	5347.0
70°	1131.3	1166.2	1350.1	1833.5	2785.7	4608.6	6662.8	6771.3	6349.1	5871.4	5057.6
72.5°	480.8	492.7	583.1	827.5	1413.1	2778.9	5457.3	5685.6	5734.2	5260.9	3951.3
75°	301.2	305.0	340.5	424.7	628.6	1149.3	3534.1	3845.3	4281.2	4081.6	2645.4
77.5°	227.0	230.1	250.7	292.5	390.4	429.1	1639.5	1955.1	2452.1	2401.0	1316.5
80°	174.0	175.9	189.6	212.7	275.0	268.8	532.0	668.5	1023.4	903.0	465.8
82.5°	136.6	137.2	149.0	153.4	192.1	180.9	266.9	297.5	413.5	343.6	227.6
85°	121.0	122.9	134.7	112.3	122.9	109.1	146.6	159.0	219.5	207.0	86.1
87.5°	61.7	64.9	112.9	96.0	61.7	51.8	64.2	69.2	89.2	96.7	41.8
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°	1203.6	1203.6	1203.6	1203.6	1203.6	1203.6	1203.6	1203.6	1203.6	1203.6	1203.6
2.5°	1189.3	1189.9	1191.7	1194.9	1199.9	1206.1	1213.6	1221.1	1225.4	1228.5	1227.3
5°	1179.3	1179.9	1183.6	1189.3	1195.5	1204.8	1217.3	1226.7	1233.5	1237.9	1237.3
7.5°	1166.8	1168.7	1176.2	1182.4	1191.1	1198.6	1208.6	1217.3	1224.2	1228.5	1227.9
10°	1157.4	1159.3	1168.7	1176.8	1184.3	1185.5	1183.6	1181.1	1180.5	1183.6	1182.4
12.5°	1153.1	1156.8	1165.6	1171.2	1168.0	1156.2	1142.5	1136.9	1135.0	1141.2	1141.9
15°	1154.3	1157.4	1164.9	1161.2	1144.4	1124.4	1116.9	1121.3	1125.0	1128.8	1129.4
17.5°	1157.4	1159.3	1161.2	1147.5	1123.8	1110.7	1108.2	1103.8	1092.6	1086.4	1085.7
20°	1163.1	1165.6	1162.4	1140.6	1119.4	1101.9	1072.0	1045.2	1019.6	1005.9	1000.3
22.5°	1182.4	1184.3	1174.9	1153.7	1121.3	1064.5	1004.0	957.9	918.6	897.4	889.3
25°	1220.4	1223.6	1210.5	1183.6	1098.8	999.7	914.2	851.9	802.6	777.0	770.2
27.5°	1287.2	1290.3	1275.9	1206.1	1046.4	913.0	809.5	747.7	705.3	683.5	680.4
30°	1386.9	1391.3	1378.2	1205.5	966.6	802.6	707.2	671.0	646.7	631.7	631.1
32.5°	1525.4	1541.6	1488.0	1184.3	868.1	691.0	629.9	617.4	605.5	595.6	595.6
35°	1701.2	1739.3	1596.5	1140.0	759.6	614.9	586.8	575.0	560.0	549.4	548.2
37.5°	1911.4	1970.7	1673.8	1061.4	666.0	578.1	560.6	541.3	517.6	497.0	492.0
40°	2200.1	2213.9	1711.8	933.6	596.2	558.1	536.3	512.0	482.1	459.0	456.5
42.5°	2490.1	2445.2	1704.4	796.4	556.3	540.1	511.4	484.6	457.7	438.4	438.4
45°	2820.0	2647.3	1647.6	658.5	520.1	519.5	488.3	462.7	442.1	427.8	424.7
47.5°	3135.6	2828.8	1549.7	556.9	482.7	498.9	473.3	452.8	434.0	420.3	417.8
50°	3518.5	3038.9	1445.6	485.8	446.5	480.8	467.1	456.5	438.4	414.7	412.2
52.5°	3898.9	3284.6	1365.1	432.2	414.7	466.5	470.8	472.1	455.2	409.1	406.0
55°	4307.4	3547.2	1280.3	390.4	388.5	459.6	479.6	478.3	470.2	410.3	405.4
57.5°	4695.9	3811.0	1153.7	361.1	367.9	452.8	481.4	461.5	447.1	416.6	408.5
60°	5017.7	4029.2	967.9	340.5	350.5	439.0	469.0	439.0	414.7	415.3	407.9
62.5°	5174.2	4090.4	740.2	316.8	336.1	416.6	450.9	422.2	399.7	417.8	413.5
65°	5055.1	3916.4	527.6	295.0	318.7	390.4	440.3	407.9	392.3	430.3	425.3
67.5°	4627.3	3442.4	382.9	275.6	301.8	363.6	420.3	394.8	384.8	439.7	428.4
69°	4172.7	2972.2	331.8	264.4	290.0	349.2	407.2	387.9	379.2	426.6	410.3
70°	3794.8	2609.9	306.2	257.6	280.0	341.1	397.2	383.5	373.6	411.0	391.6
72.5°	2720.9	1686.9	257.6	237.0	253.8	323.0	375.4	367.3	352.3	371.1	358.6
75°	1643.9	880.6	218.9	215.8	226.4	298.1	349.9	339.9	324.9	326.8	320.5
77.5°	755.2	406.6	183.3	190.8	197.7	266.9	318.7	307.4	293.7	288.7	289.4
80°	331.1	237.6	153.4	162.8	166.5	240.1	285.0	272.5	257.6	284.4	263.8
82.5°	179.0	137.8	119.7	126.0	136.6	208.9	247.6	231.4	217.0	252.6	203.9
85°	72.3	70.5	81.1	87.3	94.8	150.3	207.0	190.2	172.7	154.7	150.9
87.5°	31.2	33.7	39.9	42.4	50.5	93.5	139.1	121.6	122.2	104.8	102.9
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)