

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: P196747

Luminaire Tested: **NAV-AF-01-D-UNV-T2-7030-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196747  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24136)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-01-D-UNV-T2-7030-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6344.7 lumens  
Efficiency: N/A  
Efficacy: 94.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B1 - U0 - G2

Input Watts (W): 67  
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

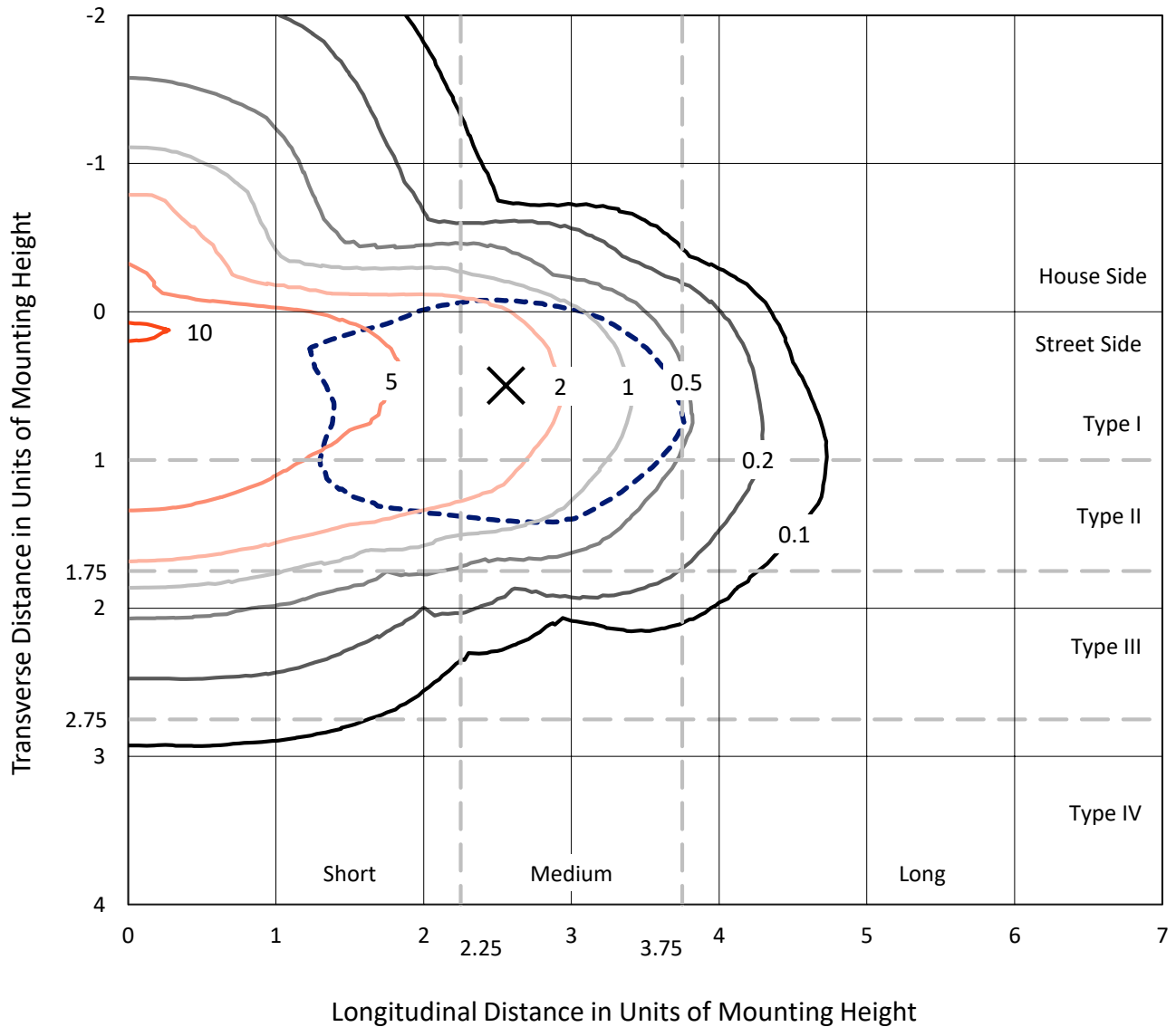


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### Iso-Footcandle Lines of Horizontal Illumination

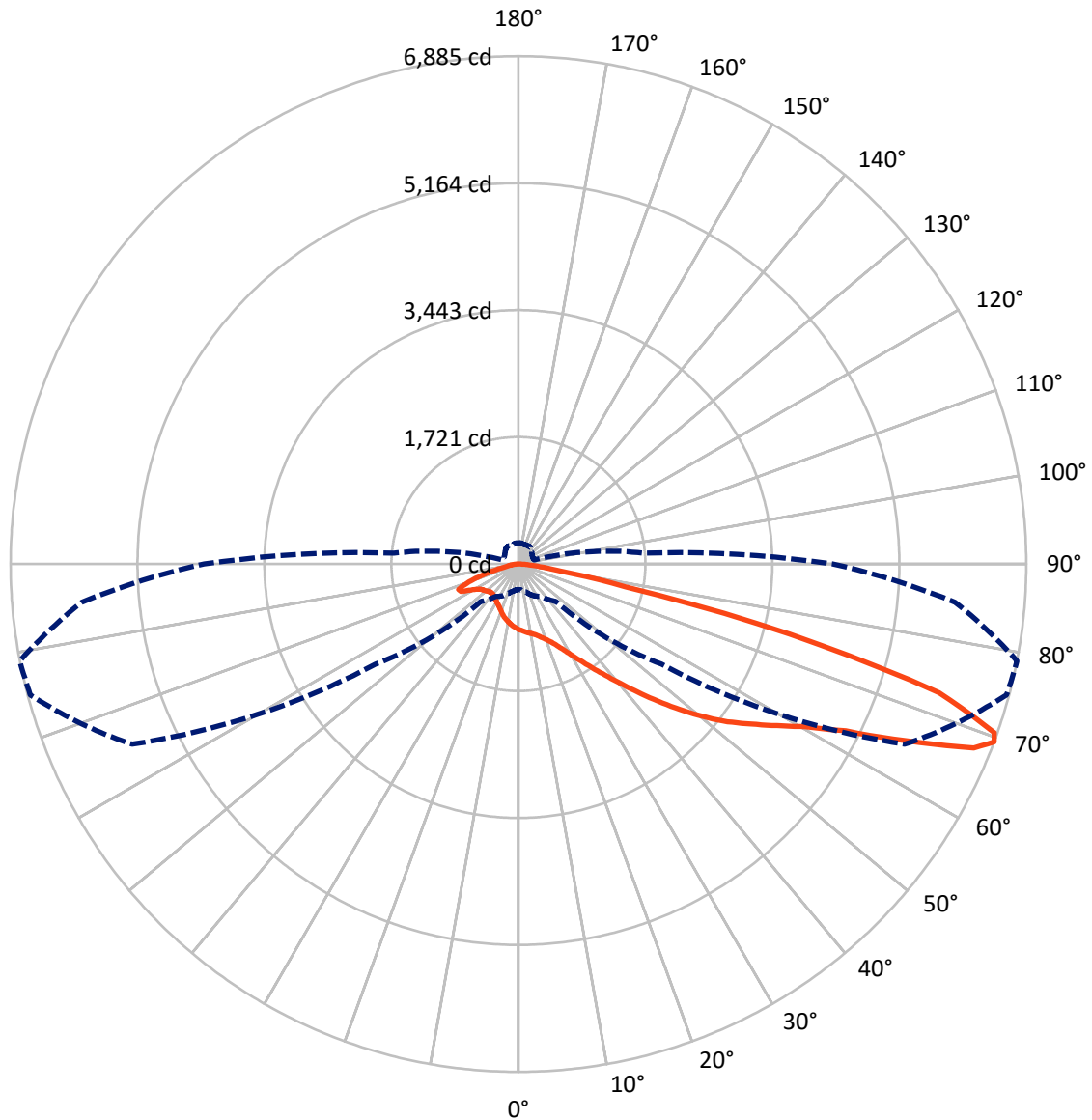
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.8 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1193.5	0.0	1193.5
	% Fixture	18.8	0.0	18.8
<b>Street Side</b>	Lumens	5151.1	0.0	5151.1
	% Fixture	81.2	0.0	81.2
<b>Total</b>	Lumens	6344.7	0.0	6344.7
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	82.5	1.3
10°-20°	236.6	3.7
20°-30°	391.0	6.2
30°-40°	633.2	10.0
40°-50°	1011.5	15.9
50°-60°	1448.6	22.8
60°-70°	1613.9	25.4
70°-80°	807.4	12.7
80°-90°	119.8	1.9
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°	6344.7	100.0
0°-180°	6344.7	100.0

**Coefficient of Utilization**



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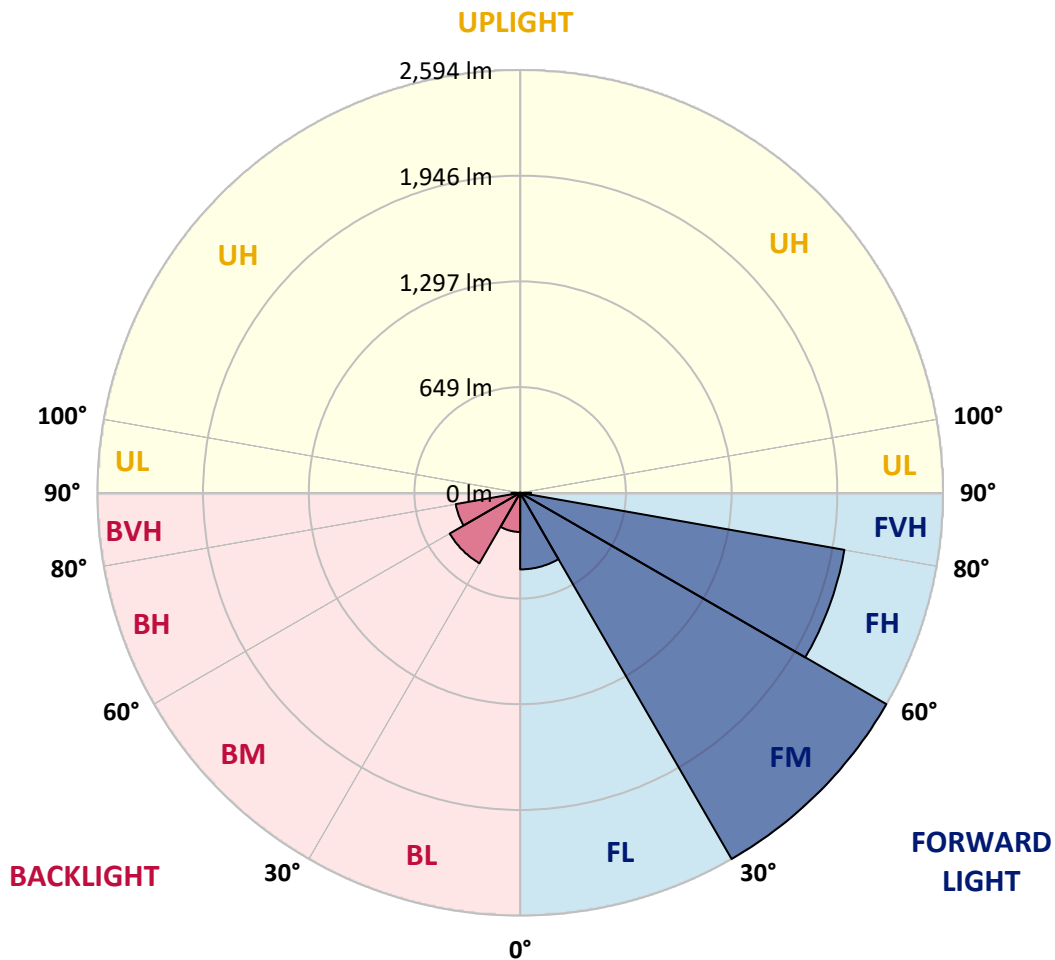
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	469.8	7.4			
FM (30°-60°)	2594.4	40.9			
FH (60°-80°)	2020.1	31.8			G2/5000
FVH (80°-90°)	66.9	1.1			G1/100
BL (0°-30°)	240.4	3.8	B1/500		
BM (30°-60°)	498.9	7.9	B1/1000		
BH (60°-80°)	401.3	6.3	B1/500		G1/500
BVH (80°-90°)	52.9	0.8			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	890.4	890.4	890.4	890.4	890.4	890.4	890.4	890.4	890.4	890.4	890.4
2.5°	977.6	975.4	975.0	968.8	965.6	958.4	941.9	924.8	909.0	900.8	892.0
5°	1059.3	1055.1	1053.0	1042.7	1033.6	1017.7	991.6	964.6	936.5	921.9	904.4
7.5°	1108.7	1109.1	1109.1	1100.8	1091.7	1072.6	1039.4	1002.5	960.5	941.4	914.1
10°	1112.8	1113.3	1119.5	1121.5	1123.6	1113.7	1083.0	1036.5	982.5	957.6	921.9
12.5°	1071.8	1074.7	1085.1	1100.0	1121.1	1131.9	1118.7	1073.0	1010.7	980.4	936.9
15°	1016.5	1019.5	1032.7	1055.6	1089.7	1125.7	1144.4	1114.9	1047.7	1012.0	958.9
17.5°	989.6	992.8	1002.0	1020.3	1053.5	1102.1	1158.0	1159.8	1091.3	1050.2	985.0
20°	976.7	979.2	990.8	1005.7	1031.1	1077.6	1159.4	1207.1	1143.2	1095.5	1016.9
22.5°	1006.2	1007.1	1012.9	1021.1	1038.2	1073.8	1158.4	1256.1	1207.9	1152.2	1058.0
25°	1092.5	1087.1	1083.0	1072.6	1076.8	1102.1	1171.8	1308.4	1290.9	1227.0	1112.8
27.5°	1194.6	1193.7	1183.0	1158.9	1143.6	1159.8	1209.6	1366.9	1392.6	1322.0	1184.7
30°	1308.4	1308.8	1297.6	1268.1	1237.0	1238.6	1269.7	1434.6	1514.3	1436.6	1273.1
32.5°	1427.5	1434.9	1414.3	1384.8	1346.9	1334.9	1356.1	1516.3	1655.0	1571.9	1375.6
35°	1569.8	1571.1	1548.3	1505.1	1467.4	1448.2	1467.8	1618.4	1817.2	1730.8	1500.5
37.5°	1717.7	1718.4	1694.8	1639.6	1591.9	1579.5	1600.9	1742.5	1989.1	1911.9	1647.5
40°	1838.4	1847.1	1828.5	1776.5	1728.4	1721.0	1752.1	1891.2	2208.6	2126.0	1822.2
42.5°	1975.4	1985.4	1963.0	1909.0	1870.8	1868.4	1916.9	2060.5	2426.9	2373.8	2020.2
45°	2129.8	2143.8	2112.7	2052.2	2019.7	2074.7	2077.4	2248.1	2678.6	2651.1	2243.1
47.5°	2298.4	2310.0	2284.6	2219.5	2184.2	2263.5	2234.8	2451.1	2950.4	2948.4	2484.3
50°	2428.3	2441.1	2443.6	2414.9	2378.0	2388.0	2407.5	2664.4	3221.5	3253.8	2733.7
52.5°	2404.6	2417.1	2473.1	2548.3	2607.6	2581.8	2605.5	2891.1	3483.4	3551.9	2970.8
55°	2213.7	2220.2	2325.4	2503.7	2756.6	2879.4	2881.1	3137.6	3732.4	3828.3	3195.8
57.5°	1869.5	1870.4	2007.0	2270.1	2669.9	3072.5	3316.1	3447.2	3992.4	4133.9	3474.7
60°	1322.9	1326.2	1485.2	1829.3	2358.9	3049.2	3783.9	4001.4	4293.3	4477.1	3834.1
62.5°	785.3	792.7	912.8	1188.8	1752.1	2750.4	4060.4	4987.2	4736.5	4980.6	4409.4
65°	511.0	517.3	589.0	727.6	1035.2	2001.1	3969.5	5941.9	5575.4	5772.6	5236.4
67.5°	393.6	398.5	454.9	538.7	635.2	1081.6	3173.8	6142.0	6596.5	6657.9	5934.1
69°	345.8	349.9	391.4	472.0	534.6	715.9	2365.1	5778.8	6851.8	6885.4	5942.8
70°	320.4	323.7	362.7	432.5	491.0	571.5	1810.2	5357.1	6758.4	6844.3	5771.4
72.5°	264.0	266.9	294.7	348.2	401.4	407.2	802.0	3911.8	5690.9	5965.7	4883.9
75°	220.3	222.2	240.4	279.3	325.0	324.2	409.7	2215.8	3472.6	3800.1	3015.5
77.5°	183.9	185.0	197.2	221.2	256.5	255.2	288.5	956.3	1533.4	1479.4	1038.2
80°	162.2	163.2	169.4	175.6	198.0	196.7	213.8	439.1	623.9	576.6	392.7
82.5°	123.3	125.0	156.5	159.4	153.6	148.1	149.0	255.6	319.6	290.9	210.9
85°	69.7	70.2	100.4	117.5	133.7	100.4	96.7	131.9	157.8	138.2	92.1
87.5°	31.1	32.3	48.2	55.6	72.2	58.9	55.1	56.0	68.1	56.5	36.5
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°	890.4	890.4	890.4	890.4	890.4	890.4	890.4	890.4	890.4	890.4	890.4
2.5°	883.7	876.7	860.1	843.1	826.0	815.2	804.0	793.7	789.5	789.1	781.2
5°	887.4	870.8	833.1	791.6	752.1	721.4	695.7	679.0	662.8	660.0	653.0
7.5°	888.8	861.7	800.4	733.9	673.7	631.3	605.7	594.4	586.5	584.4	582.0
10°	888.3	850.1	763.7	672.8	604.3	572.4	562.9	565.3	568.7	570.4	570.4
12.5°	895.0	844.7	727.2	615.5	559.5	544.2	551.6	564.6	574.4	578.6	579.5
15°	907.0	841.4	687.0	565.8	527.9	531.8	550.0	568.7	582.8	589.0	590.6
17.5°	921.9	836.8	640.5	524.7	509.7	522.6	546.3	569.9	586.9	594.8	596.0
20°	938.5	830.2	592.3	494.0	493.6	509.7	533.4	560.0	578.2	586.9	586.5
22.5°	960.9	824.0	547.5	471.6	475.8	490.7	510.1	534.2	551.2	559.1	557.4
25°	990.8	818.2	507.2	451.6	455.4	465.3	479.0	497.2	509.2	513.4	510.6
27.5°	1031.1	813.6	475.8	433.3	432.8	437.5	445.8	455.7	461.6	460.3	455.7
30°	1080.5	808.9	452.5	417.2	411.4	411.0	414.6	420.4	424.3	416.8	413.0
32.5°	1135.6	801.1	431.7	403.0	392.7	389.0	390.6	398.5	413.9	406.3	403.5
35°	1200.9	792.0	411.0	387.7	379.7	372.8	374.0	391.0	437.5	432.1	429.2
37.5°	1279.3	783.7	391.8	371.1	370.7	361.9	361.1	381.5	443.7	432.1	429.6
40°	1373.5	782.0	374.9	352.8	359.5	356.1	353.2	365.7	409.2	385.5	381.1
42.5°	1487.2	789.5	362.4	335.4	346.6	354.4	349.1	352.1	369.9	348.6	344.9
45°	1620.1	809.8	353.2	320.0	332.9	353.2	347.0	344.5	347.5	335.8	333.3
47.5°	1774.9	846.0	347.0	307.1	320.0	349.9	346.2	341.2	339.9	333.3	331.6
50°	1940.6	894.5	342.8	295.5	308.4	344.0	345.8	338.7	336.6	333.7	332.9
52.5°	2104.9	947.3	337.8	285.6	298.9	337.1	346.2	336.2	333.3	331.6	330.8
55°	2268.4	1002.0	328.8	276.9	291.8	328.8	345.8	332.9	329.5	329.5	329.5
57.5°	2480.5	1085.5	316.8	269.8	282.7	318.0	340.4	329.2	324.6	325.0	325.4
60°	2786.8	1225.4	303.4	261.9	270.6	305.5	332.0	322.6	317.2	318.8	319.2
62.5°	3298.6	1469.9	285.1	250.7	258.2	292.3	321.2	313.3	308.4	311.3	311.7
65°	3981.1	1765.7	261.1	236.5	245.3	277.3	307.6	302.6	297.1	304.3	303.8
67.5°	4397.4	1852.5	235.8	221.7	232.8	261.4	290.5	288.5	284.7	297.1	296.4
69°	4260.9	1695.6	221.2	212.1	224.2	250.7	279.8	278.9	276.0	288.1	287.3
70°	4048.7	1549.1	212.1	205.9	219.6	244.0	272.7	272.7	269.8	280.1	278.1
72.5°	3252.2	1149.0	190.9	190.1	203.8	225.8	253.6	255.6	254.0	257.8	255.6
75°	1909.5	692.3	170.2	172.6	184.7	206.3	232.4	234.2	232.4	232.0	232.4
77.5°	662.1	310.6	150.2	153.9	164.3	186.4	209.2	212.5	210.0	207.1	207.9
80°	259.1	180.6	128.7	134.1	142.8	164.0	186.0	188.0	184.3	183.9	180.6
82.5°	155.7	110.1	100.1	108.7	119.5	142.4	160.6	159.8	156.9	173.9	152.3
85°	67.6	60.9	73.1	81.7	87.2	106.6	135.7	131.9	125.0	110.1	107.5
87.5°	27.5	31.5	40.3	48.5	52.3	69.0	93.0	89.7	90.9	74.8	74.3
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)