

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: P196267

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196267  
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-T2-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6710.6 lumens  
Efficiency: N/A  
Efficacy: 100.2 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

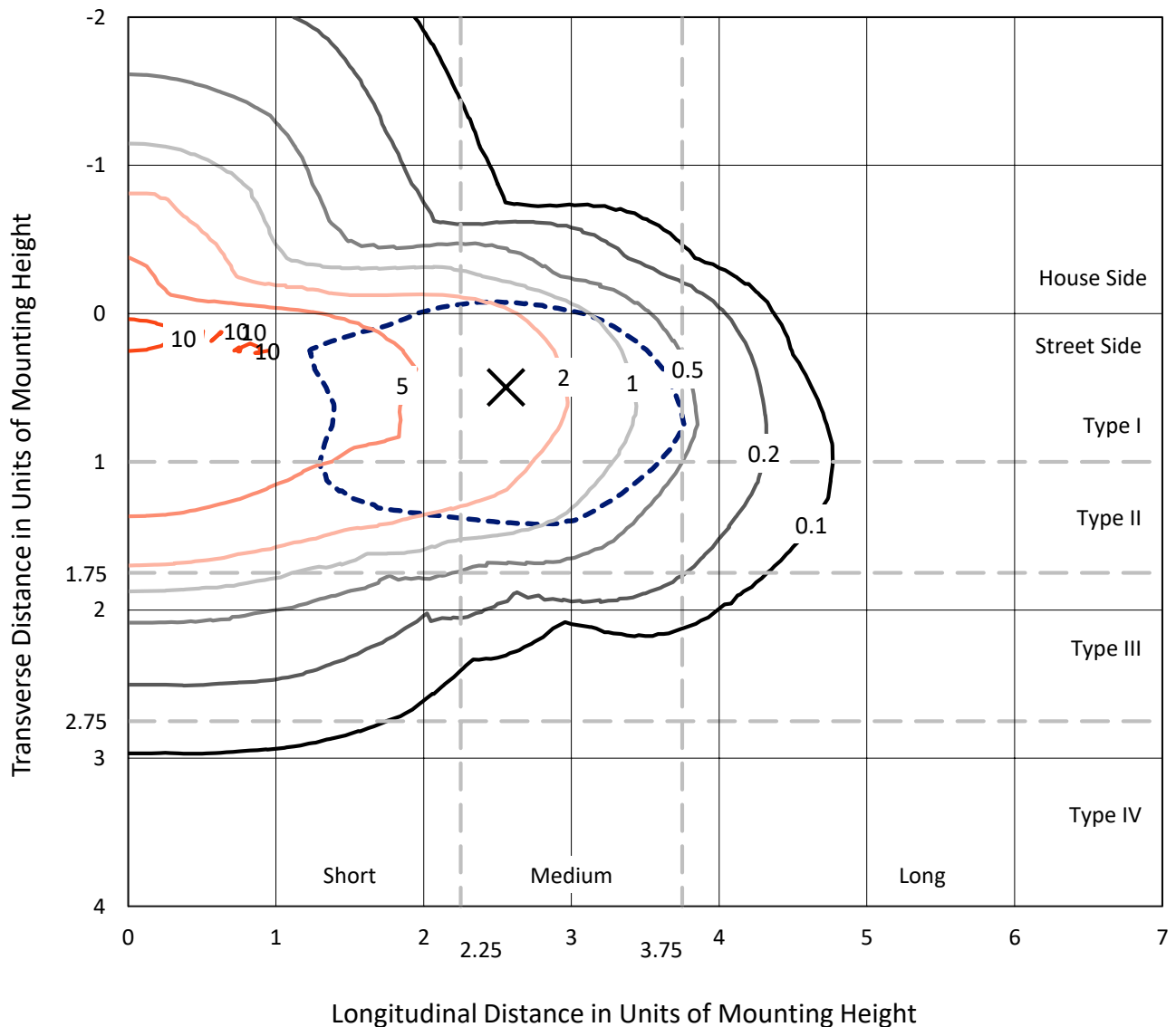
Input Watts (W): 67  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

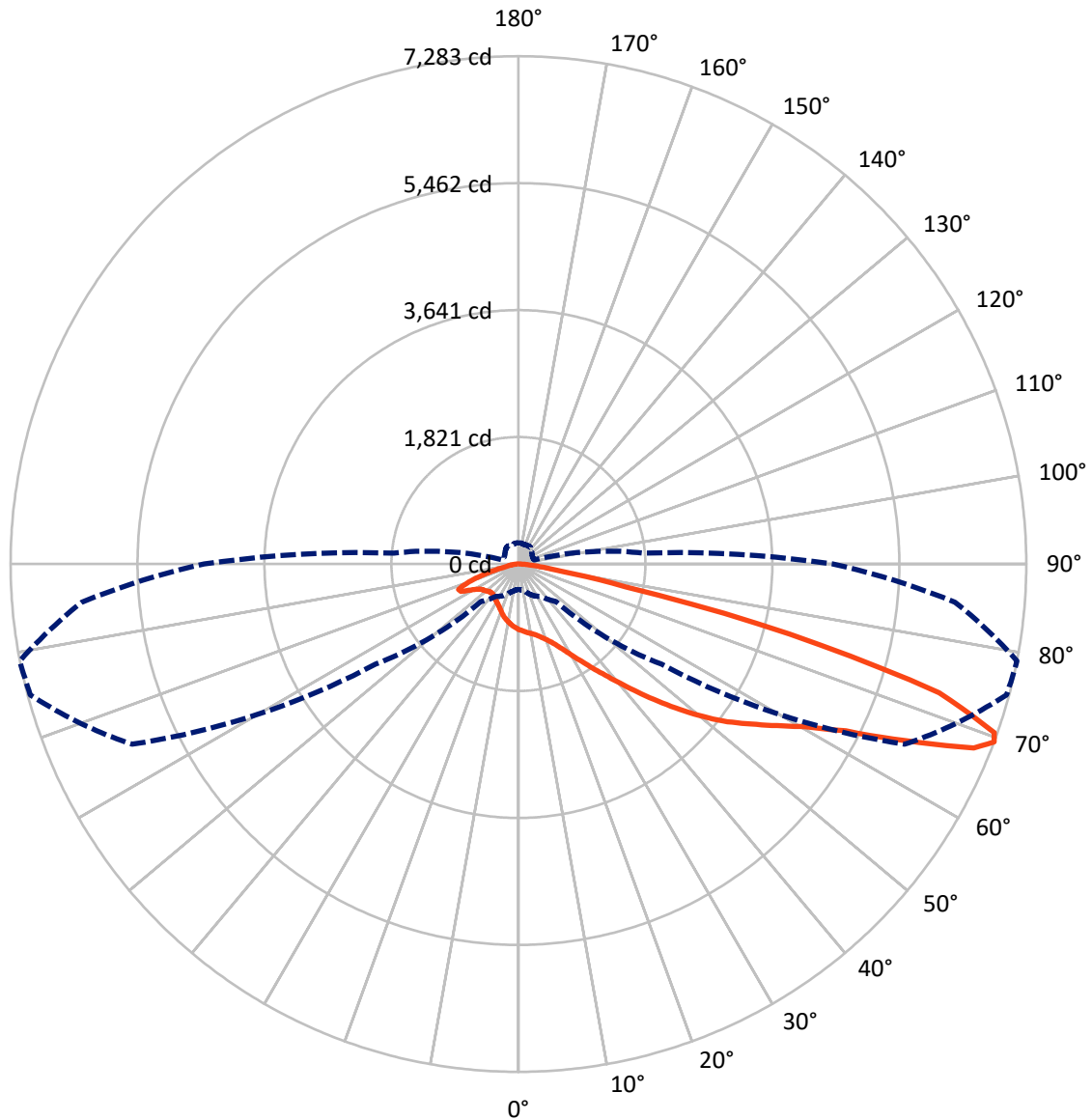
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.4 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	1262.4	0.0	1262.4
	% Fixture	18.8	0.0	18.8
<b>Street Side</b>	Lumens	5448.2	0.0	5448.2
	% Fixture	81.2	0.0	81.2
<b>Total</b>	Lumens	6710.6	0.0	6710.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.3	1.3
10°-20°	250.3	3.7
20°-30°	413.6	6.2
30°-40°	669.7	10.0
40°-50°	1069.8	15.9
50°-60°	1532.1	22.8
60°-70°	1707.0	25.4
70°-80°	854.0	12.7
80°-90°	126.7	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°	6710.6	100.0
0°-180°	6710.6	100.0



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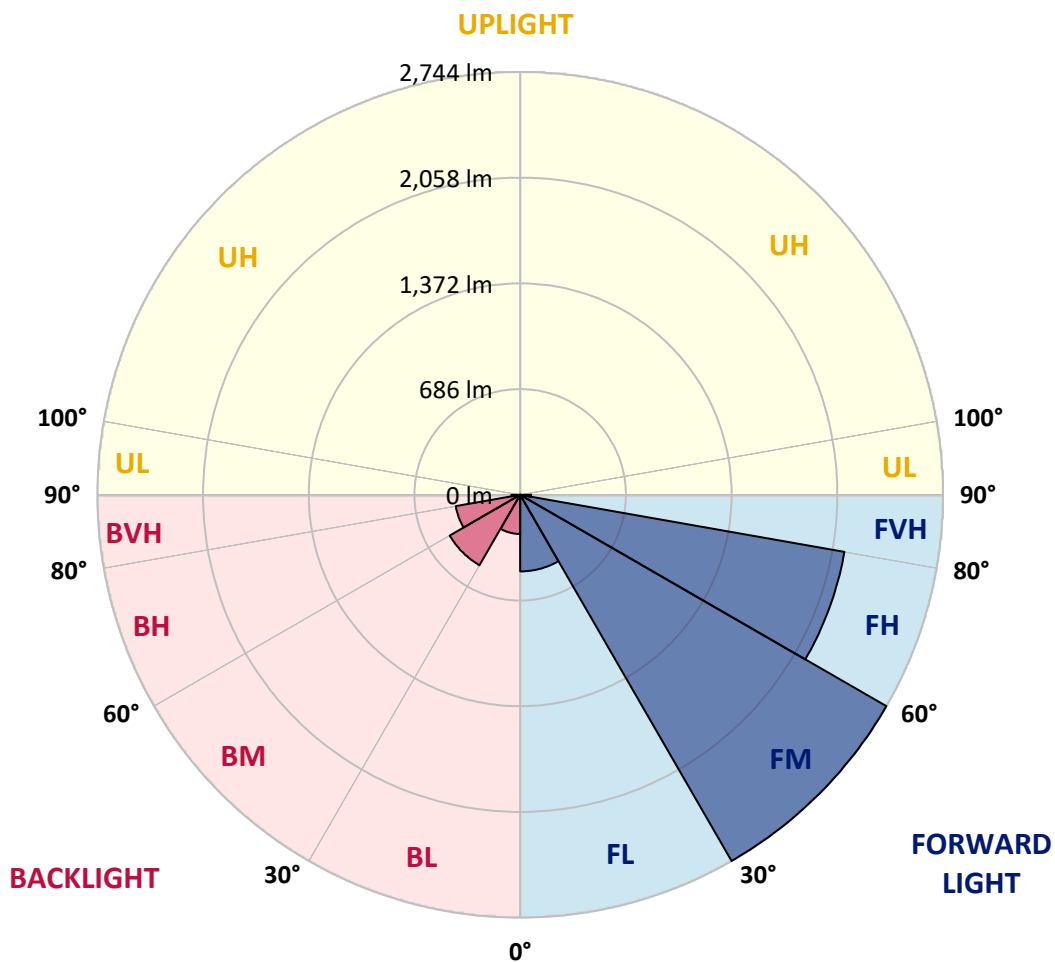
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	496.9	7.4			
FM	(30°-60°)	2744.0	40.9			
FH	(60°-80°)	2136.6	31.8			G2/5000
FVH	(80°-90°)	70.8	1.1			G1/100
BL	(0°-30°)	254.3	3.8	B1/500		
BM	(30°-60°)	527.7	7.9	B1/1000		
BH	(60°-80°)	424.5	6.3	B1/500		G1/500
BVH	(80°-90°)	55.9	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°	941.7	941.7	941.7	941.7	941.7	941.7	941.7	941.7	941.7	941.7	941.7
2.5°	1033.9	1031.7	1031.2	1024.7	1021.2	1013.7	996.1	978.1	961.5	952.7	943.5
5°	1120.3	1116.0	1113.8	1102.8	1093.1	1076.5	1048.8	1020.3	990.4	975.1	956.7
7.5°	1172.6	1173.0	1173.0	1164.3	1154.6	1134.5	1099.3	1060.3	1015.9	995.7	966.7
10°	1177.0	1177.4	1184.1	1186.2	1188.5	1177.9	1145.4	1096.2	1039.2	1012.8	975.1
12.5°	1133.5	1136.6	1147.6	1163.4	1185.8	1197.3	1183.1	1134.9	1069.0	1037.0	990.8
15°	1075.1	1078.2	1092.3	1116.4	1152.5	1190.6	1210.4	1179.3	1108.1	1070.3	1014.2
17.5°	1046.6	1050.2	1059.8	1079.1	1114.2	1165.7	1224.9	1226.6	1154.2	1110.7	1041.8
20°	1033.0	1035.6	1047.9	1063.8	1090.6	1139.7	1226.2	1276.6	1209.0	1158.6	1075.6
22.5°	1064.2	1065.1	1071.2	1080.0	1098.0	1135.8	1225.3	1328.5	1277.6	1218.7	1119.1
25°	1155.5	1149.8	1145.4	1134.5	1138.9	1165.7	1239.4	1383.8	1365.3	1297.7	1177.0
27.5°	1263.5	1262.6	1251.2	1225.8	1209.5	1226.6	1279.3	1445.7	1472.9	1398.3	1253.0
30°	1383.8	1384.3	1372.4	1341.2	1308.3	1310.1	1342.9	1517.2	1601.5	1519.5	1346.5
32.5°	1509.8	1517.6	1495.8	1464.6	1424.7	1411.9	1434.3	1603.8	1750.4	1662.6	1454.9
35°	1660.4	1661.7	1637.5	1591.9	1551.9	1531.8	1552.4	1711.7	1922.0	1830.7	1587.1
37.5°	1816.7	1817.6	1792.5	1734.1	1683.7	1670.5	1693.3	1843.1	2103.8	2022.2	1742.5
40°	1944.4	1953.6	1933.9	1879.1	1828.1	1820.1	1853.1	2000.2	2336.0	2248.7	1927.3
42.5°	2089.3	2099.8	2076.2	2019.1	1978.7	1976.0	2027.4	2179.3	2567.0	2510.7	2136.7
45°	2252.6	2267.6	2234.6	2170.5	2136.3	2194.2	2197.3	2377.7	2833.1	2804.0	2372.4
47.5°	2430.8	2443.1	2416.4	2347.5	2310.1	2394.0	2363.7	2592.5	3120.6	3118.4	2627.6
50°	2568.3	2581.9	2584.5	2554.2	2515.1	2525.7	2546.3	2818.1	3407.2	3441.5	2891.4
52.5°	2543.3	2556.5	2615.7	2695.2	2758.0	2730.8	2755.7	3057.8	3684.3	3756.7	3142.1
55°	2341.3	2348.3	2459.4	2648.2	2915.5	3045.5	3047.3	3318.6	3947.7	4049.1	3380.0
57.5°	1977.4	1978.3	2122.6	2401.0	2823.8	3249.6	3507.4	3646.1	4222.5	4372.2	3675.1
60°	1399.2	1402.7	1570.8	1934.8	2495.0	3225.1	4002.1	4232.2	4540.8	4735.3	4055.3
62.5°	830.6	838.5	965.5	1257.4	1853.1	2909.0	4294.6	5274.8	5009.7	5267.8	4663.7
65°	540.4	547.0	623.0	769.6	1095.0	2116.5	4198.4	6284.6	5896.9	6105.5	5538.3
67.5°	416.2	421.5	481.2	569.9	671.7	1144.1	3356.8	6496.2	6976.9	7041.9	6276.3
69°	365.7	370.1	414.0	499.2	565.5	757.3	2501.5	6112.0	7247.0	7282.5	6285.5
70°	338.9	342.5	383.7	457.5	519.4	604.6	1914.6	5666.0	7148.2	7239.0	6104.2
72.5°	279.3	282.3	311.7	368.4	424.5	430.7	848.2	4137.3	6019.0	6309.7	5165.5
75°	233.1	234.9	254.2	295.4	343.7	342.9	433.3	2343.5	3672.9	4019.3	3189.5
77.5°	194.5	195.8	208.6	233.9	271.3	270.0	305.1	1011.5	1621.8	1564.7	1098.0
80°	171.7	172.6	179.1	185.7	209.4	208.1	226.1	464.5	659.8	609.8	415.3
82.5°	130.4	132.2	165.5	168.6	162.4	156.7	157.6	270.5	338.1	307.8	223.0
85°	73.8	74.2	106.3	124.3	141.4	106.3	102.3	139.6	166.8	146.2	97.5
87.5°	32.9	34.3	50.9	58.8	76.4	62.3	58.4	59.2	72.0	59.7	38.7
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°	941.7	941.7	941.7	941.7	941.7	941.7	941.7	941.7	941.7	941.7	941.7
2.5°	934.7	927.2	909.6	891.6	873.7	862.2	850.4	839.4	835.0	834.6	826.2
5°	938.7	921.1	881.1	837.2	795.5	763.0	735.8	718.2	701.1	698.1	690.6
7.5°	940.0	911.4	846.4	776.2	712.5	667.8	640.6	628.7	620.3	618.2	615.5
10°	939.5	899.1	807.8	711.7	639.2	605.4	595.4	597.9	601.5	603.2	603.2
12.5°	946.5	893.4	769.2	651.1	591.8	575.5	583.5	597.1	607.6	612.0	612.8
15°	959.2	889.9	726.6	598.4	558.4	562.4	581.8	601.5	616.4	623.0	624.7
17.5°	975.1	885.1	677.4	555.0	539.1	552.7	577.8	602.8	620.8	629.1	630.4
20°	992.7	878.0	626.5	522.4	522.0	539.1	564.2	592.3	611.5	620.8	620.3
22.5°	1016.3	871.5	579.1	498.7	503.1	518.9	539.6	565.0	583.0	591.4	589.6
25°	1047.9	865.3	536.4	477.6	481.6	492.1	506.7	525.9	538.7	543.1	540.0
27.5°	1090.6	860.5	503.1	458.4	457.9	462.7	471.5	482.0	488.2	486.9	482.0
30°	1142.7	855.7	478.5	441.2	435.1	434.7	438.5	444.8	448.7	440.8	436.8
32.5°	1201.1	847.3	456.5	426.3	415.3	411.3	413.2	421.5	437.7	429.8	426.8
35°	1270.1	837.7	434.7	410.0	401.7	394.2	395.6	413.6	462.7	457.1	454.0
37.5°	1353.1	828.9	414.4	392.5	392.1	382.8	382.0	403.5	469.3	457.1	454.4
40°	1452.7	827.2	396.4	373.2	380.2	376.7	373.6	386.8	432.9	407.9	403.0
42.5°	1573.0	835.0	383.3	354.8	366.6	374.9	369.2	372.3	391.2	368.8	364.8
45°	1713.5	856.5	373.6	338.5	352.1	373.6	367.0	364.4	367.4	355.2	352.5
47.5°	1877.2	894.8	367.0	324.9	338.5	370.1	366.1	360.9	359.6	352.5	350.8
50°	2052.4	946.1	362.6	312.6	326.2	364.0	365.7	358.2	356.1	353.0	352.1
52.5°	2226.2	1001.9	357.3	302.1	316.1	356.5	366.1	355.6	352.5	350.8	350.0
55°	2399.2	1059.8	347.7	292.9	308.6	347.7	365.7	352.1	348.6	348.6	348.6
57.5°	2623.6	1148.1	335.0	285.4	299.0	336.2	360.0	348.1	343.3	343.7	344.2
60°	2947.6	1296.0	320.9	277.0	286.2	323.2	351.2	341.2	335.4	337.2	337.6
62.5°	3488.9	1554.6	301.6	265.1	273.0	309.0	339.8	331.4	326.2	329.3	329.7
65°	4210.7	1867.6	276.1	250.2	259.4	293.3	325.3	320.1	314.4	321.8	321.4
67.5°	4651.1	1959.4	249.4	234.5	246.3	276.6	307.3	305.1	301.2	314.4	313.4
69°	4506.6	1793.4	233.9	224.3	237.1	265.1	295.9	295.0	292.0	304.6	303.8
70°	4282.2	1638.5	224.3	217.8	232.2	258.2	288.5	288.5	285.4	296.3	294.1
72.5°	3439.8	1215.2	201.9	201.1	215.5	238.9	268.2	270.5	268.7	272.6	270.5
75°	2019.5	732.3	180.0	182.6	195.4	218.2	245.8	247.7	245.8	245.4	245.8
77.5°	700.2	328.4	159.0	162.9	173.9	197.1	221.3	224.7	222.2	219.1	219.9
80°	273.9	191.0	136.1	141.8	151.0	173.4	196.7	198.9	195.0	194.5	191.0
82.5°	164.6	116.3	105.8	115.0	126.4	150.6	169.9	169.0	165.9	183.9	161.1
85°	71.6	64.5	77.2	86.4	92.2	112.8	143.5	139.6	132.2	116.3	113.8
87.5°	28.9	33.3	42.6	51.4	55.3	72.8	98.3	94.8	96.2	79.1	78.6
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)