

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: P195859

Luminaire Tested: **NAV-AF-01-D-UNV-T3R-7050-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P195859  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24250)  
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-T3R-7050-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6817 lumens  
Efficiency: N/A  
Efficacy: 101.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium - Full Cutoff  
BUG Rating: B1 - U0 - G2

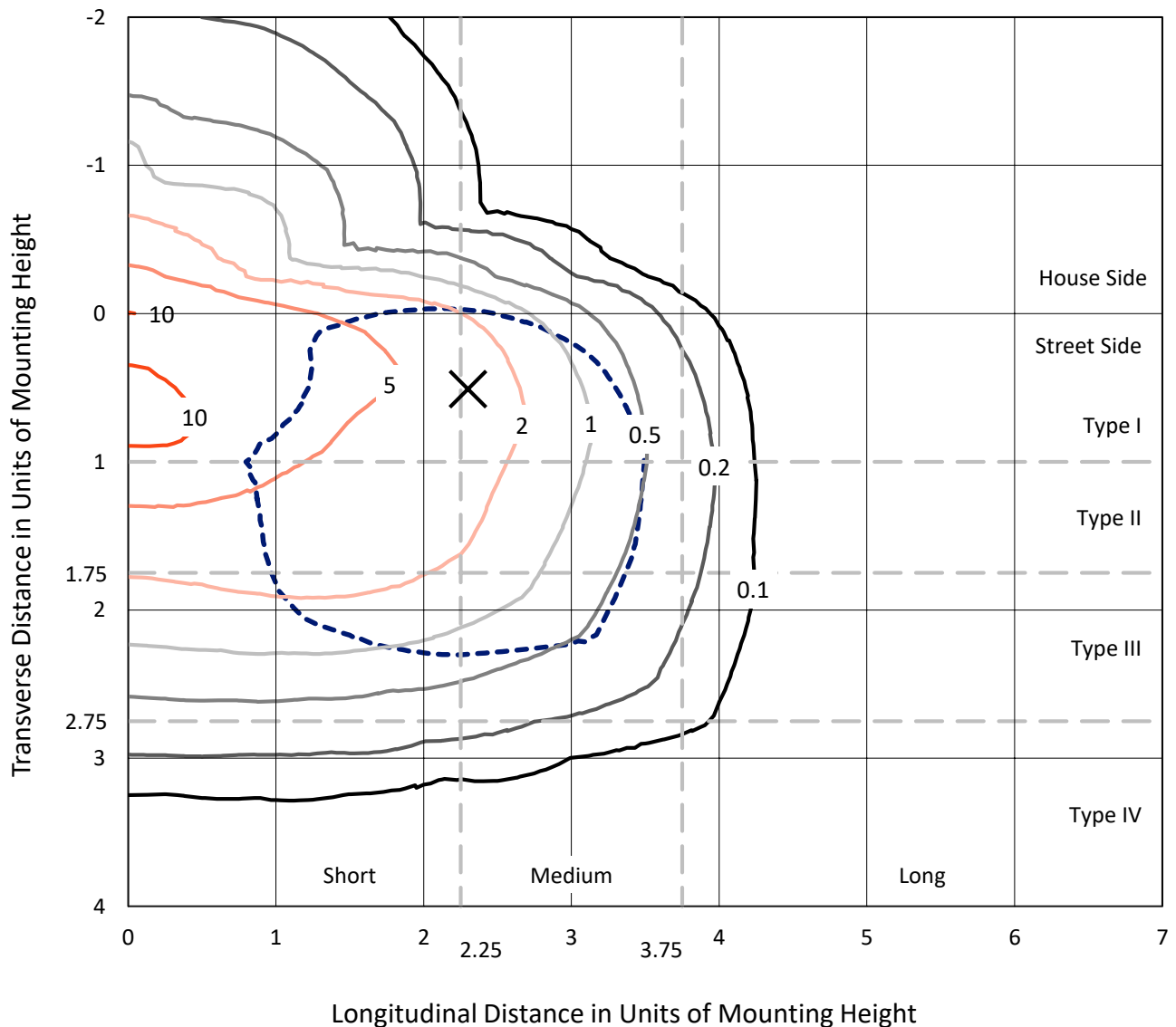
Input Watts (W): 67  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P195859  
 CATALOG NUMBER: NAV-AF-01-D-UNV-T3R-7050-1200

### Iso-Footcandle Lines of Horizontal Illumination

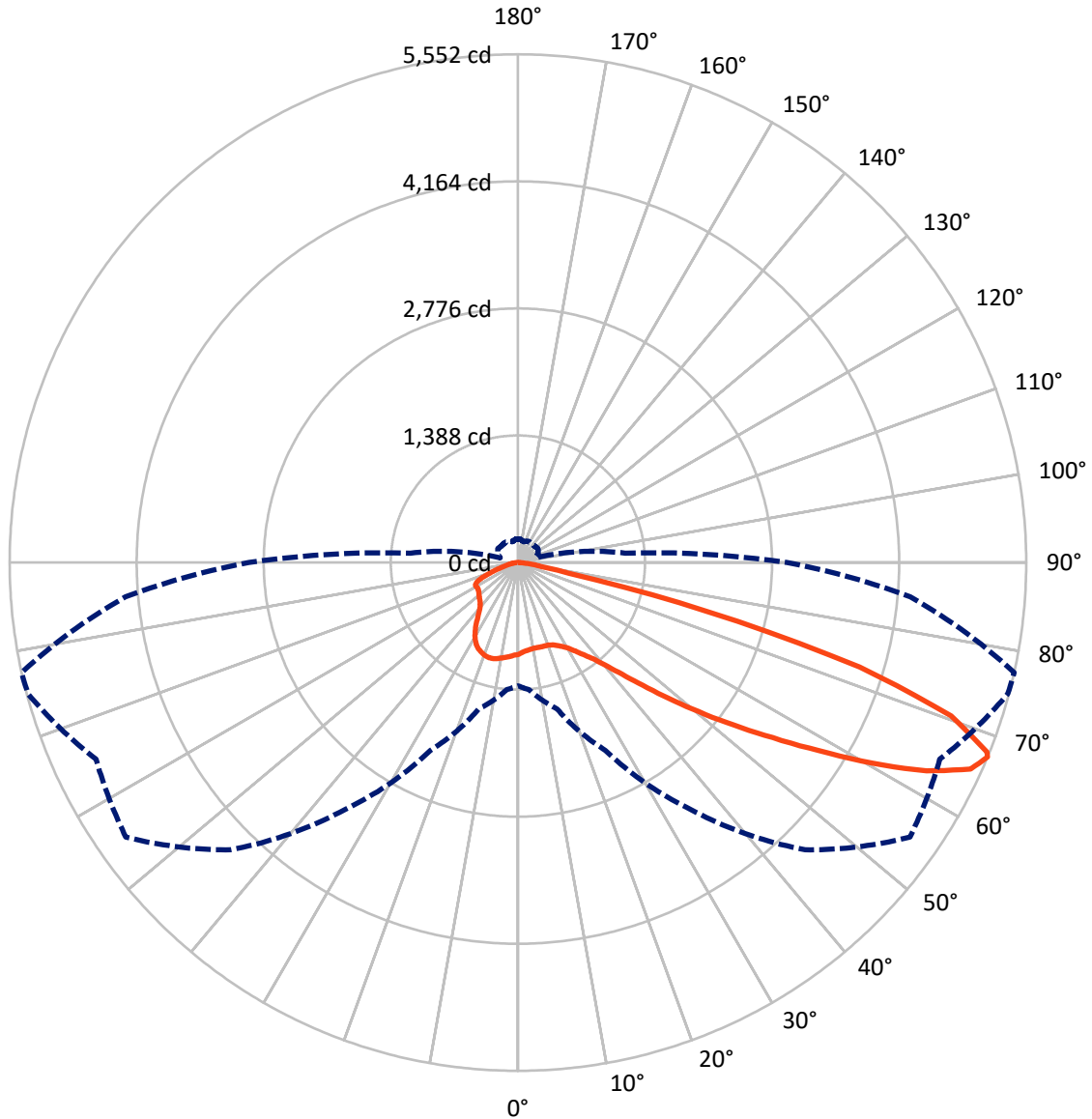
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.1 fc  
 Type III - Medium - Full Cutoff

REPORT NUMBER: P195859  
CATALOG NUMBER: NAV-AF-01-D-UNV-T3R-7050-1200

### Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral    - - - Horizontal Cone Through 67-Deg Vertical

REPORT NUMBER: P195859

CATALOG NUMBER: NAV-AF-01-D-UNV-T3R-7050-1200

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1171.5	0.0	1171.5
	% Fixture	17.2	0.0	17.2
<b>Street Side</b>	Lumens	5645.5	0.0	5645.5
	% Fixture	82.8	0.0	82.8
<b>Total</b>	Lumens	6817.0	0.0	6817.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.4	1.3
10°-20°	247.5	3.6
20°-30°	420.5	6.2
30°-40°	672.6	9.9
40°-50°	1035.5	15.2
50°-60°	1436.7	21.1
60°-70°	1916.5	28.1
70°-80°	912.0	13.4
80°-90°	86.4	1.3
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°	6817.0	100.0
0°-180°	6817.0	100.0



REPORT NUMBER: P195859

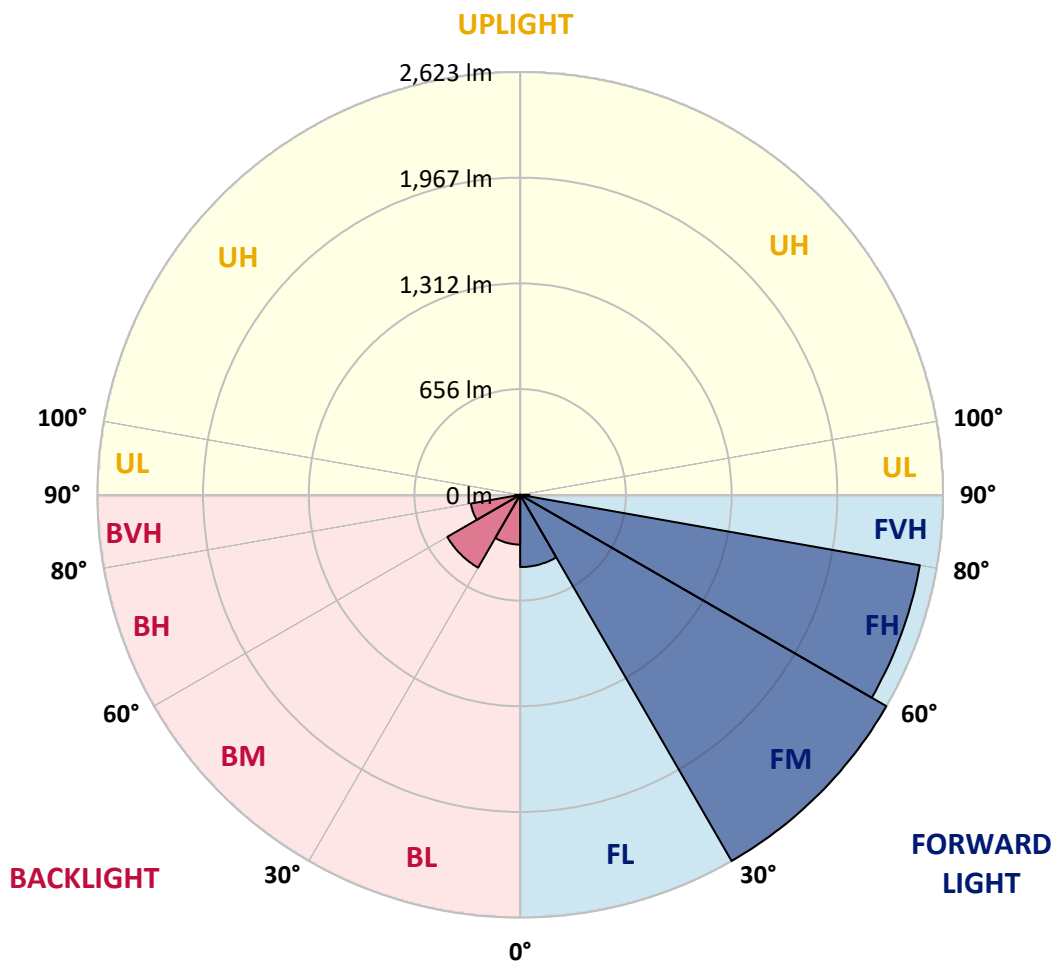
CATALOG NUMBER: NAV-AF-01-D-UNV-T3R-7050-1200

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	448.3	6.6			
FM	(30°-60°)	2623.3	38.5			
FH	(60°-80°)	2517.9	36.9			G2/5000
FVH	(80°-90°)	56.1	0.8			G1/100
BL	(0°-30°)	309.0	4.5	B1/500		
BM	(30°-60°)	521.6	7.7	B1/1000		
BH	(60°-80°)	310.6	4.6	B1/500		G1/500
BVH	(80°-90°)	30.3	0.4			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 III Medium





REPORT NUMBER: P195859

CATALOG NUMBER: NAV-AF-01-D-UNV-T3R-7050-1200

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	1003.3	1003.3	1003.3	1003.3	1003.3	1003.3	1003.3	1003.3	1003.3	1003.3	1003.3
2.5°	899.6	903.8	904.3	916.5	922.0	935.9	951.0	964.5	976.3	980.5	988.1
5°	809.5	809.5	810.7	818.7	834.3	856.6	888.2	922.8	959.0	967.9	990.2
7.5°	762.3	763.1	763.9	772.0	784.2	804.0	835.6	882.8	943.0	957.8	997.0
10°	766.5	765.2	761.0	759.3	764.4	777.0	804.4	852.9	929.5	952.3	1009.2
12.5°	832.6	830.1	816.2	796.0	777.4	772.8	791.8	837.7	923.2	952.3	1029.8
15°	946.0	947.7	920.3	878.1	829.7	796.8	794.3	832.2	921.1	954.8	1053.8
17.5°	1093.5	1094.3	1056.4	995.3	914.8	847.0	811.6	832.2	921.1	957.4	1077.0
20°	1250.2	1244.3	1201.3	1124.6	1020.1	916.5	843.2	837.3	923.6	961.1	1098.9
22.5°	1384.6	1379.1	1334.1	1253.6	1133.9	998.6	885.7	854.1	937.5	976.7	1129.7
25°	1502.2	1505.6	1461.7	1371.1	1247.3	1091.3	949.3	892.9	966.6	1005.0	1167.6
27.5°	1645.0	1638.7	1588.1	1501.8	1364.0	1187.4	1029.0	941.8	1001.2	1039.1	1214.0
30°	1810.2	1807.3	1739.0	1650.1	1492.5	1294.9	1107.8	994.4	1046.3	1085.9	1272.1
32.5°	2010.8	2010.4	1937.0	1827.9	1637.0	1416.2	1200.9	1066.5	1112.0	1152.0	1349.2
35°	2237.9	2237.5	2161.6	2017.5	1803.5	1550.6	1310.5	1154.1	1193.3	1235.5	1441.1
37.5°	2395.5	2393.0	2353.4	2213.5	1987.6	1707.0	1447.4	1272.1	1285.6	1332.8	1551.9
40°	2425.8	2441.0	2475.1	2392.5	2188.6	1880.6	1584.8	1399.0	1411.6	1472.3	1691.4
42.5°	2393.0	2412.8	2526.1	2549.3	2389.6	2090.8	1756.7	1574.7	1590.7	1666.1	1855.3
45°	2364.3	2381.6	2523.6	2636.1	2588.1	2320.1	1971.2	1789.1	1819.5	1913.0	2042.4
47.5°	2315.4	2331.4	2473.9	2651.7	2701.4	2540.9	2229.5	2047.0	2099.3	2212.6	2255.6
50°	2312.9	2320.1	2406.0	2599.4	2740.6	2708.6	2515.6	2348.7	2428.8	2559.4	2491.6
52.5°	2248.9	2299.0	2377.0	2516.0	2741.4	2806.3	2797.5	2679.5	2803.0	2947.5	2750.3
55°	1857.0	1914.7	2280.0	2475.1	2736.4	2890.2	3054.9	3031.3	3224.3	3376.4	3040.2
57.5°	1733.9	1758.4	2000.2	2487.4	2778.5	3028.8	3312.4	3409.3	3706.4	3872.4	3387.8
60°	1700.2	1725.9	1944.2	2493.2	2892.7	3281.2	3661.7	3836.2	4273.1	4449.3	3782.6
62.5°	1662.7	1696.0	1948.4	2498.7	3093.3	3654.5	4125.2	4299.2	4855.0	5012.2	4152.6
65°	1553.2	1597.4	1870.5	2464.2	3312.8	4123.1	4737.9	4782.1	5335.8	5435.7	4375.9
67°	1345.4	1393.9	1656.4	2264.4	3292.6	4438.7	5227.9	5084.3	5540.2	5552.4	4303.5
67.5°	1279.7	1329.8	1583.9	2181.4	3234.9	4480.0	5314.7	5126.0	5538.5	5525.0	4236.0
70°	861.7	918.2	1121.7	1601.6	2594.8	4169.5	5293.7	4997.5	5175.3	5020.6	3639.4
72.5°	427.7	429.4	559.6	877.3	1572.1	2990.5	4416.0	4275.2	4195.2	3903.2	2670.6
75°	206.1	209.8	264.2	387.7	662.8	1543.9	3011.5	2884.7	2456.2	2126.7	1336.6
77.5°	157.2	161.0	205.2	252.4	276.4	503.5	1491.7	1205.5	711.7	568.4	376.7
80°	121.4	128.5	173.2	193.8	182.9	201.8	469.0	369.1	276.8	254.1	186.7
82.5°	94.8	99.0	147.1	147.1	126.4	135.3	218.3	213.2	171.9	155.1	100.3
85°	67.0	75.4	118.4	109.6	83.0	83.9	130.6	125.1	88.5	71.2	39.2
87.5°	29.9	38.3	84.3	71.6	44.2	34.1	53.5	45.9	35.0	27.0	18.1
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: P195859

CATALOG NUMBER: NAV-AF-01-D-UNV-T3R-7050-1200

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1003.3	1003.3	1003.3	1003.3	1003.3	1003.3	1003.3	1003.3	1003.3	1003.3	1003.3
2.5°	996.5	1003.3	1013.8	1020.1	1028.6	1031.9	1035.3	1041.2	1045.8	1044.6	1042.5
5°	1005.8	1017.2	1030.3	1034.5	1034.5	1030.3	1027.7	1028.1	1026.9	1026.0	1023.5
7.5°	1019.3	1034.9	1044.2	1039.9	1026.9	1010.4	994.9	985.6	976.7	971.3	972.9
10°	1038.3	1055.5	1056.0	1037.4	1006.2	970.4	939.7	919.9	900.9	892.5	895.0
12.5°	1065.6	1082.9	1068.2	1028.1	973.4	917.3	860.9	820.0	783.3	774.5	772.0
15°	1095.1	1108.6	1075.8	1008.3	926.2	833.9	739.1	678.0	637.1	629.9	627.4
17.5°	1120.8	1128.4	1072.0	972.9	851.6	706.2	595.8	554.5	546.1	550.3	550.3
20°	1143.6	1141.1	1055.5	918.2	734.0	564.6	500.6	500.2	511.5	522.1	522.9
22.5°	1172.3	1152.4	1029.4	836.8	593.7	471.1	460.1	471.1	483.7	495.5	496.8
25°	1206.4	1165.1	994.4	721.0	477.4	427.7	432.3	441.6	449.6	458.9	459.3
27.5°	1240.5	1174.8	945.1	584.9	414.2	399.9	404.9	408.7	410.8	416.7	416.7
30°	1280.1	1182.4	873.9	468.6	385.1	375.4	372.5	370.8	372.5	380.5	380.9
32.5°	1329.8	1195.8	776.6	402.0	371.6	358.2	343.0	334.6	340.5	354.8	357.3
35°	1386.3	1211.9	659.9	375.4	367.0	349.7	321.9	308.9	311.0	324.0	326.1
37.5°	1457.1	1232.5	544.8	369.1	371.6	348.9	312.2	293.7	284.4	284.8	284.4
40°	1547.7	1253.2	453.8	370.8	381.8	351.0	307.6	278.5	259.1	260.0	261.7
42.5°	1642.5	1266.6	396.1	375.9	394.0	354.0	305.9	263.8	246.9	261.2	274.3
45°	1753.3	1262.8	366.2	380.5	403.3	355.2	299.6	262.1	248.2	291.2	315.6
47.5°	1880.6	1246.4	349.3	382.6	405.8	354.8	295.0	267.6	258.7	333.3	361.1
50°	2018.8	1220.7	335.8	379.2	404.5	353.1	300.0	274.3	262.9	342.6	364.1
52.5°	2170.1	1197.1	321.9	371.6	398.2	348.1	306.3	271.4	251.1	315.6	332.0
55°	2349.1	1191.6	306.3	358.6	387.7	342.6	303.0	262.1	238.1	279.8	289.9
57.5°	2553.9	1225.8	286.1	342.6	373.3	331.6	295.0	257.0	233.4	254.5	260.0
60°	2813.9	1301.2	264.6	325.7	355.6	315.2	287.8	258.3	234.7	250.7	252.0
62.5°	3017.0	1369.0	245.2	305.1	332.0	295.4	280.2	259.6	238.5	255.8	253.7
65°	3090.8	1335.7	221.2	274.3	298.8	273.5	269.7	260.4	238.5	258.7	254.1
67°	2939.5	1176.9	198.5	243.6	267.1	254.1	259.6	257.0	234.3	258.3	250.3
67.5°	2867.4	1120.8	192.6	238.5	258.7	248.2	257.0	255.4	233.0	257.5	248.2
70°	2364.7	804.0	162.6	200.2	216.6	218.7	241.4	244.4	222.9	241.9	225.0
72.5°	1682.5	503.1	140.3	155.1	174.9	187.1	220.4	229.6	209.4	210.3	196.4
75°	832.6	270.1	125.1	119.7	136.1	155.9	192.1	209.4	189.6	175.3	170.7
77.5°	281.1	153.0	105.8	96.5	105.8	125.1	159.3	182.9	167.3	148.3	145.4
80°	145.4	111.2	82.6	77.5	83.4	96.9	124.7	152.1	142.8	143.7	118.4
82.5°	90.6	67.8	59.4	59.0	63.2	74.2	91.9	123.5	122.6	104.9	76.3
85°	42.1	39.2	37.9	39.2	40.5	42.1	59.8	88.1	93.1	56.5	50.1
87.5°	17.7	17.3	15.2	16.4	18.1	17.7	24.0	37.5	52.2	35.4	32.4
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)