

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: P196807

Luminaire Tested: **NAV-AF-01-D-UNV-T3R-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196807
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-7030-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 800mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4856.6 lumens
Efficiency: N/A
Efficacy: 110.4 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 - G1

Input Watts (W): 44
Input Voltage (V): NR
Input Current (A_{in}): 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

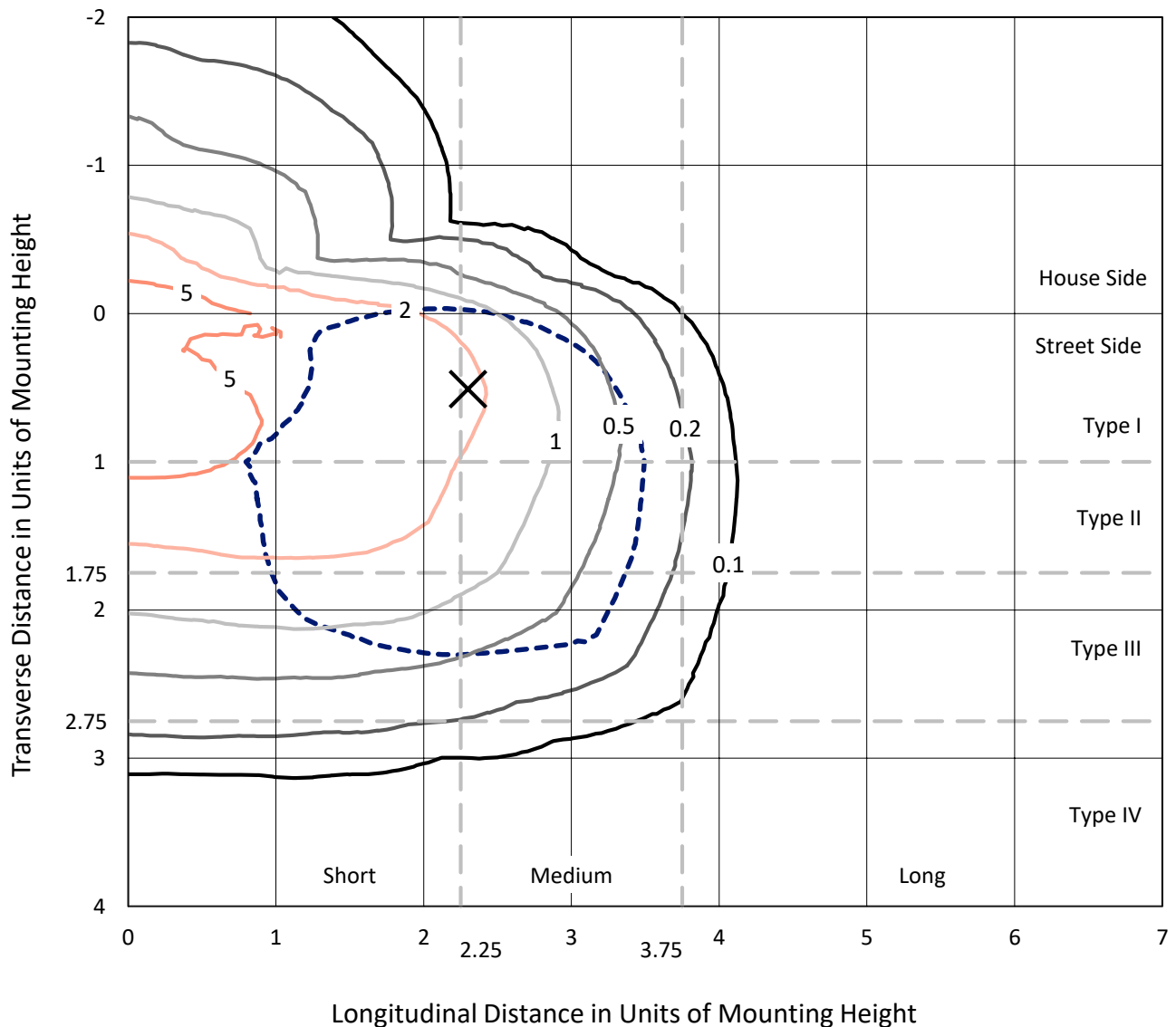


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Iso-Footcandle Lines of Horizontal Illumination

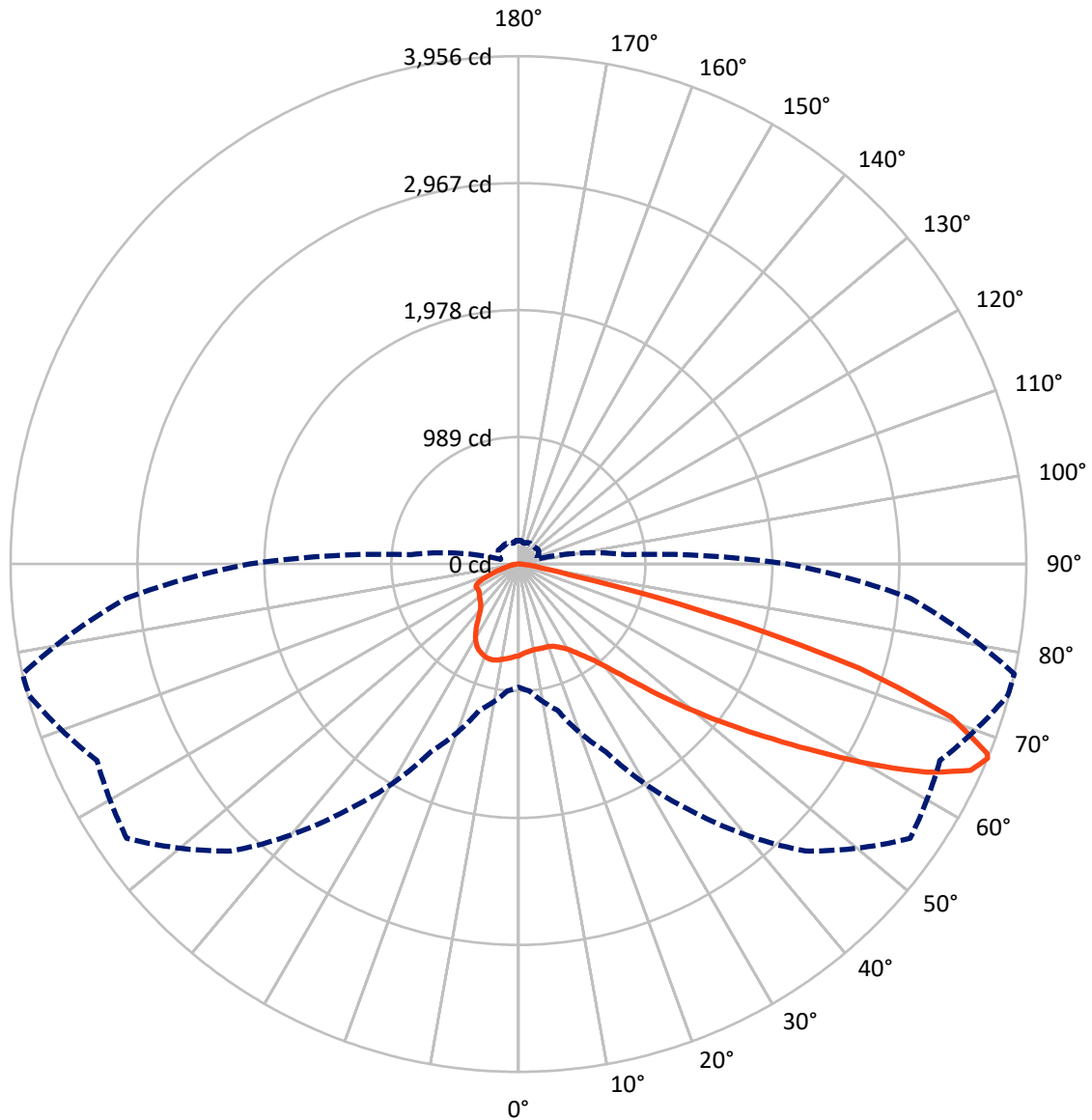
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.6 fc
 Type III - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	834.6	0.0	834.6
	% Fixture	17.2	0.0	17.2
Street Side	Lumens	4022.0	0.0	4022.0
	% Fixture	82.8	0.0	82.8
Total	Lumens	4856.6	0.0	4856.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.7	1.3
10°-20°	176.3	3.6
20°-30°	299.5	6.2
30°-40°	479.2	9.9
40°-50°	737.7	15.2
50°-60°	1023.5	21.1
60°-70°	1365.3	28.1
70°-80°	649.8	13.4
80°-90°	61.5	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°	4856.6	100.0
0°-180°	4856.6	100.0



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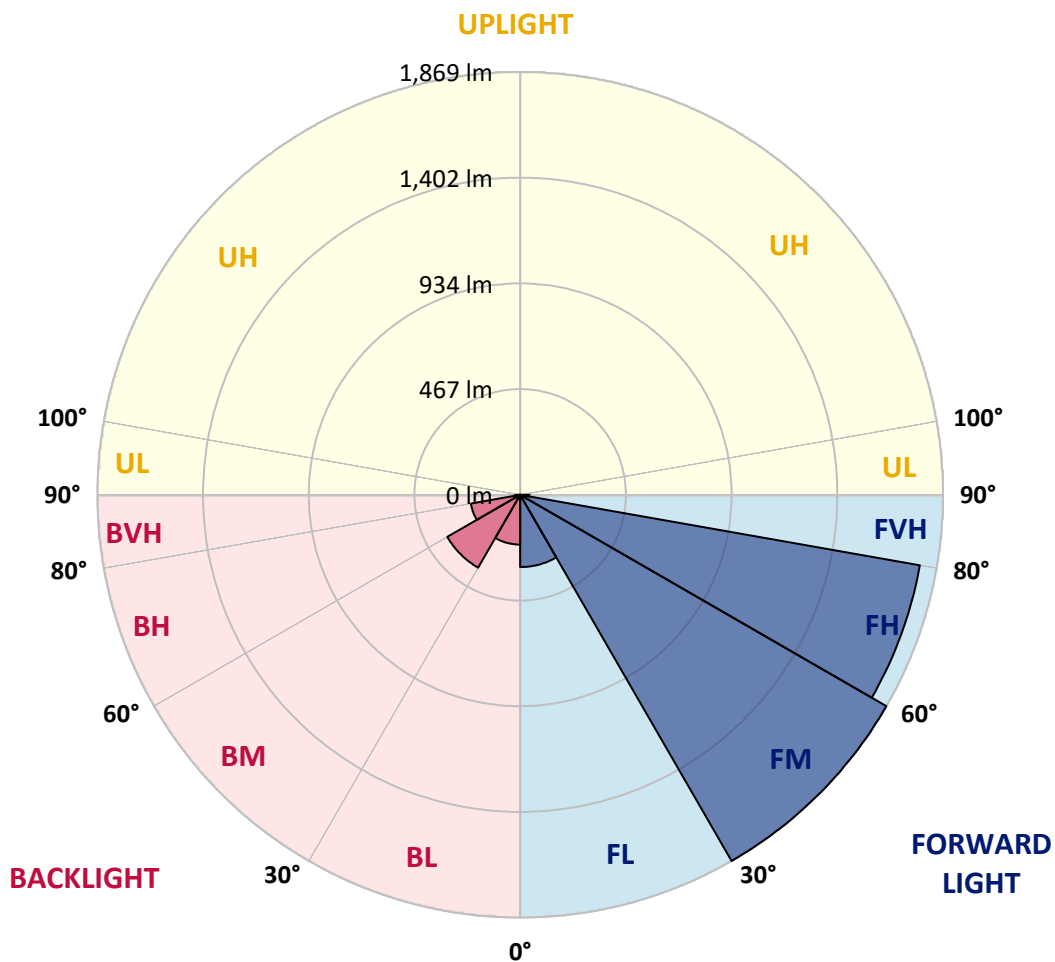
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	319.4	6.6			
FM	(30°-60°)	1868.9	38.5			
FH	(60°-80°)	1793.8	36.9			G1/1800
FVH	(80°-90°)	40.0	0.8			G1/100
BL	(0°-30°)	220.1	4.5	B1/500		
BM	(30°-60°)	371.6	7.7	B1/1000		
BH	(60°-80°)	221.3	4.6	B1/500		G1/500
BVH	(80°-90°)	21.6	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-G1

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	714.8	714.8	714.8	714.8	714.8	714.8	714.8	714.8	714.8	714.8	714.8
2.5°	641.0	643.9	644.2	653.0	656.8	666.7	677.5	687.1	695.6	698.6	703.9
5°	576.7	576.7	577.6	583.2	594.4	610.3	632.8	657.4	683.2	689.5	705.5
7.5°	543.0	543.7	544.2	549.9	558.7	572.7	595.3	628.9	671.8	682.4	710.3
10°	546.1	545.2	542.2	541.0	544.5	553.5	573.1	607.6	662.2	678.4	718.9
12.5°	593.2	591.4	581.5	567.0	553.8	550.5	564.1	596.8	657.7	678.4	733.6
15°	673.9	675.1	655.7	625.6	591.1	567.7	565.9	592.8	656.2	680.2	750.8
17.5°	779.0	779.6	752.6	709.1	651.7	603.4	578.2	592.8	656.2	682.0	767.3
20°	890.7	886.4	855.8	801.2	726.8	653.0	600.7	596.4	658.1	684.7	783.0
22.5°	986.4	982.6	950.4	893.0	807.9	711.5	631.0	608.5	667.9	695.9	804.8
25°	1070.2	1072.6	1041.4	976.8	888.6	777.5	676.4	636.1	688.7	715.9	831.8
27.5°	1172.0	1167.4	1131.4	1069.8	971.8	846.0	733.0	671.0	713.3	740.2	864.9
30°	1289.6	1287.5	1238.9	1175.5	1063.3	922.4	789.2	708.4	745.3	773.5	906.3
32.5°	1432.5	1432.2	1380.0	1302.3	1166.3	1008.9	855.5	759.8	792.2	820.7	961.3
35°	1594.3	1594.0	1540.0	1437.3	1284.8	1104.7	933.6	822.1	850.1	880.2	1026.7
37.5°	1706.6	1704.8	1676.6	1576.9	1416.0	1216.0	1031.2	906.3	915.9	949.5	1105.6
40°	1728.3	1739.0	1763.3	1704.5	1559.2	1339.7	1128.9	996.7	1005.6	1048.9	1205.0
42.5°	1704.8	1718.8	1799.6	1816.2	1702.4	1489.5	1251.4	1121.9	1133.2	1187.0	1321.7
45°	1684.3	1696.7	1797.9	1878.0	1843.7	1652.9	1404.3	1274.6	1296.3	1362.9	1455.0
47.5°	1649.6	1661.0	1762.5	1889.1	1924.5	1810.2	1588.3	1458.4	1495.5	1576.3	1606.9
50°	1647.7	1652.9	1714.1	1852.0	1952.5	1929.6	1792.2	1673.3	1730.3	1823.4	1775.0
52.5°	1602.2	1637.9	1693.4	1792.5	1953.0	1999.3	1993.0	1909.0	1996.9	2099.9	1959.3
55°	1322.9	1364.1	1624.3	1763.3	1949.4	2059.0	2176.5	2159.6	2297.0	2405.5	2165.8
57.5°	1235.2	1252.6	1425.1	1772.0	1979.4	2157.8	2359.8	2428.9	2640.5	2758.8	2413.5
60°	1211.2	1229.6	1385.1	1776.2	2060.8	2337.6	2608.7	2733.0	3044.3	3169.7	2694.9
62.5°	1184.6	1208.3	1388.1	1780.2	2203.8	2603.5	2938.8	3062.9	3458.8	3570.8	2958.4
65°	1106.5	1138.1	1332.5	1755.6	2360.1	2937.4	3375.3	3406.9	3801.3	3872.4	3117.5
67°	958.5	993.0	1180.1	1613.2	2345.7	3162.2	3724.5	3622.2	3947.0	3955.6	3066.0
67.5°	911.7	947.4	1128.4	1554.1	2304.6	3191.7	3786.4	3651.9	3945.8	3936.2	3017.8
70°	613.9	654.1	799.1	1141.0	1848.5	2970.4	3771.3	3560.3	3687.0	3576.8	2592.7
72.5°	304.8	305.9	398.7	625.0	1120.0	2130.4	3146.0	3045.7	2988.7	2780.6	1902.6
75°	146.9	149.4	188.3	276.2	472.2	1099.9	2145.6	2055.1	1749.8	1515.1	952.2
77.5°	112.0	114.7	146.2	179.8	196.8	358.7	1062.6	858.9	507.1	405.0	268.3
80°	86.5	91.6	123.4	138.1	130.2	143.7	334.2	263.0	197.2	181.1	133.0
82.5°	67.5	70.6	104.8	104.8	90.0	96.3	155.4	151.9	122.5	110.5	71.4
85°	47.7	53.7	84.3	78.0	59.1	59.8	93.1	89.1	63.1	50.7	28.0
87.5°	21.3	27.4	60.1	51.1	31.4	24.4	38.1	32.7	24.9	19.2	12.9
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°	714.8	714.8	714.8	714.8	714.8	714.8	714.8	714.8	714.8	714.8	714.8
2.5°	709.9	714.8	722.3	726.8	732.8	735.2	737.6	741.8	745.0	744.2	742.6
5°	716.5	724.7	734.0	737.0	737.0	734.0	732.1	732.5	731.6	731.0	729.2
7.5°	726.1	737.3	743.8	740.9	731.6	719.9	708.8	702.1	695.9	691.9	693.1
10°	739.6	752.0	752.2	739.0	716.8	691.4	669.4	655.3	641.8	635.8	637.6
12.5°	759.3	771.5	761.0	732.5	693.5	653.5	613.3	584.2	558.1	551.8	549.9
15°	780.2	789.8	766.4	718.4	659.8	594.1	526.5	483.0	453.9	448.8	447.0
17.5°	798.4	803.9	763.7	693.1	606.7	503.1	424.5	395.1	389.1	392.0	392.0
20°	814.7	812.9	752.0	654.1	523.0	402.3	356.6	356.3	364.5	371.9	372.6
22.5°	835.2	821.0	733.3	596.2	423.0	335.7	327.8	335.7	344.6	353.0	353.9
25°	859.5	830.1	708.4	513.6	340.2	304.8	308.0	314.5	320.3	326.9	327.2
27.5°	883.8	836.9	673.4	416.8	295.1	284.8	288.5	291.1	292.7	296.8	296.8
30°	912.0	842.4	622.6	333.8	274.3	267.4	265.4	264.2	265.4	271.1	271.4
32.5°	947.4	851.9	553.3	286.4	264.7	255.1	244.3	238.4	242.5	252.7	254.6
35°	987.6	863.3	470.2	267.4	261.4	249.1	229.3	220.0	221.6	230.9	232.4
37.5°	1038.1	878.1	388.2	263.0	264.7	248.6	222.5	209.2	202.6	202.9	202.6
40°	1102.7	892.7	323.3	264.2	271.9	250.1	219.2	198.5	184.6	185.2	186.4
42.5°	1170.1	902.4	282.2	267.8	280.7	252.2	218.0	187.9	175.9	186.1	195.5
45°	1249.1	899.6	260.9	271.1	287.3	253.1	213.4	186.8	176.8	207.5	224.8
47.5°	1339.7	888.0	248.9	272.6	289.1	252.7	210.1	190.6	184.3	237.4	257.3
50°	1438.2	869.7	239.3	270.2	288.2	251.6	213.7	195.5	187.3	244.0	259.4
52.5°	1546.0	852.9	229.3	264.7	283.6	247.9	218.2	193.3	178.9	224.8	236.5
55°	1673.6	849.0	218.2	255.4	276.2	244.0	215.8	186.8	169.6	199.3	206.5
57.5°	1819.5	873.3	203.9	244.0	265.9	236.2	210.1	183.1	166.3	181.4	185.2
60°	2004.7	926.9	188.5	232.0	253.4	224.5	205.1	184.0	167.1	178.6	179.5
62.5°	2149.3	975.3	174.7	217.3	236.5	210.5	199.6	184.8	169.9	182.3	180.8
65°	2201.9	951.6	157.6	195.5	212.8	194.8	192.1	185.5	169.9	184.3	181.1
67°	2094.2	838.4	141.4	173.5	190.3	181.1	184.8	183.1	166.9	184.0	178.3
67.5°	2042.8	798.4	137.2	169.9	184.3	176.8	183.1	181.9	166.0	183.4	176.8
70°	1684.7	572.7	116.0	142.6	154.3	155.8	172.0	174.2	158.8	172.3	160.3
72.5°	1198.7	358.5	100.0	110.5	124.5	133.3	157.0	163.6	149.2	149.8	139.9
75°	593.2	192.4	89.1	85.2	96.9	111.1	136.9	149.2	135.1	124.9	121.6
77.5°	200.3	108.9	75.4	68.8	75.4	89.1	113.5	130.2	119.2	105.7	103.6
80°	103.6	79.2	58.9	55.2	59.4	69.1	88.8	108.3	101.7	102.3	84.3
82.5°	64.6	48.3	42.3	42.1	45.1	52.9	65.4	88.0	87.4	74.8	54.3
85°	30.0	28.0	27.0	28.0	28.9	30.0	42.6	62.8	66.3	40.2	35.7
87.5°	12.6	12.3	10.8	11.7	12.9	12.6	17.2	26.8	37.2	25.2	23.2
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)