

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: P270266

Luminaire Tested: **NAV-AF-01-D-UNV-SL2-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270266
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24257)
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-SL2-7027-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3428.3 lumens
Efficiency: N/A
Efficacy: 100.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 34
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

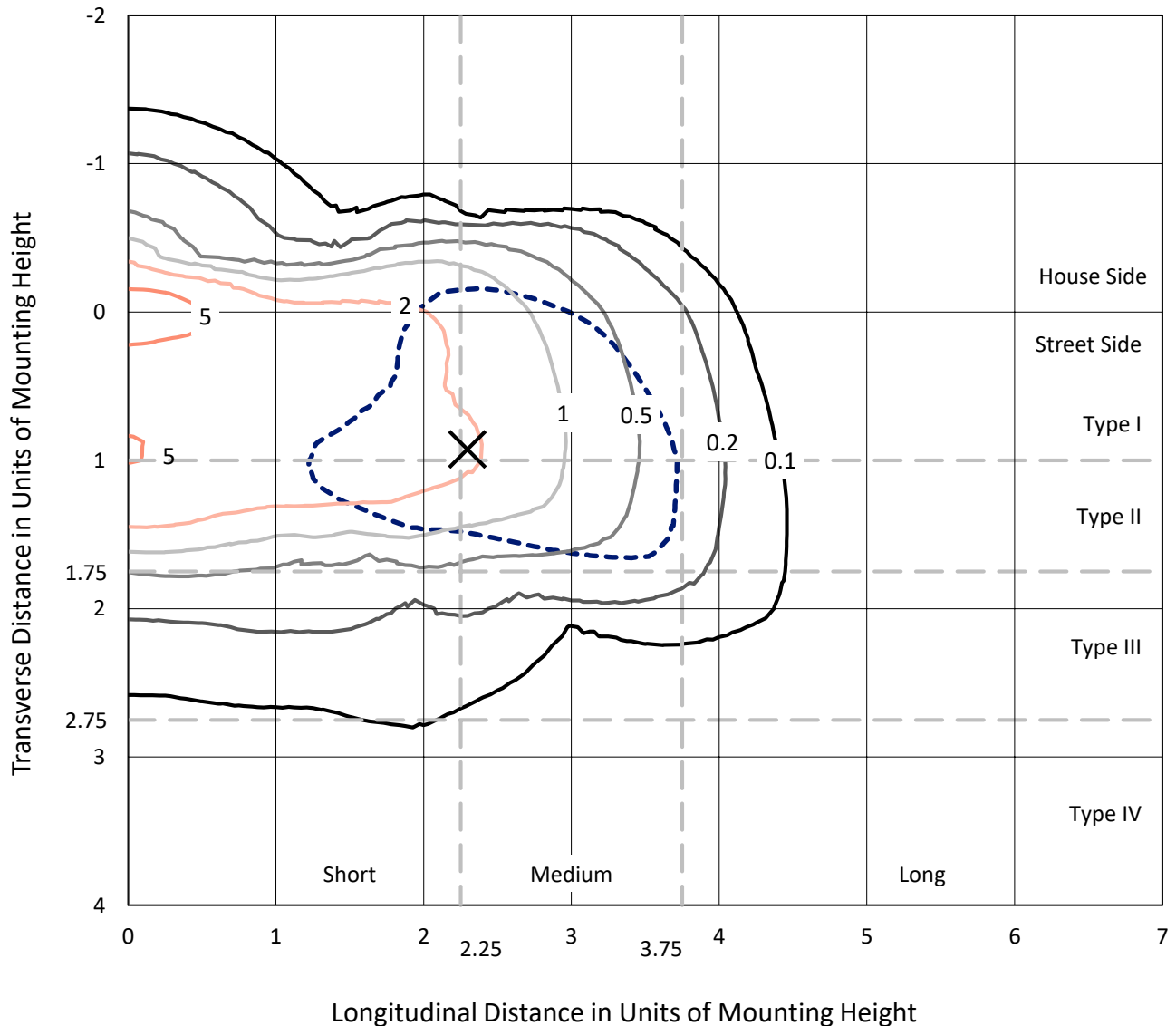


REPORT NUMBER: P270266

CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-7027-600

Iso-Footcandle Lines of Horizontal Illumination

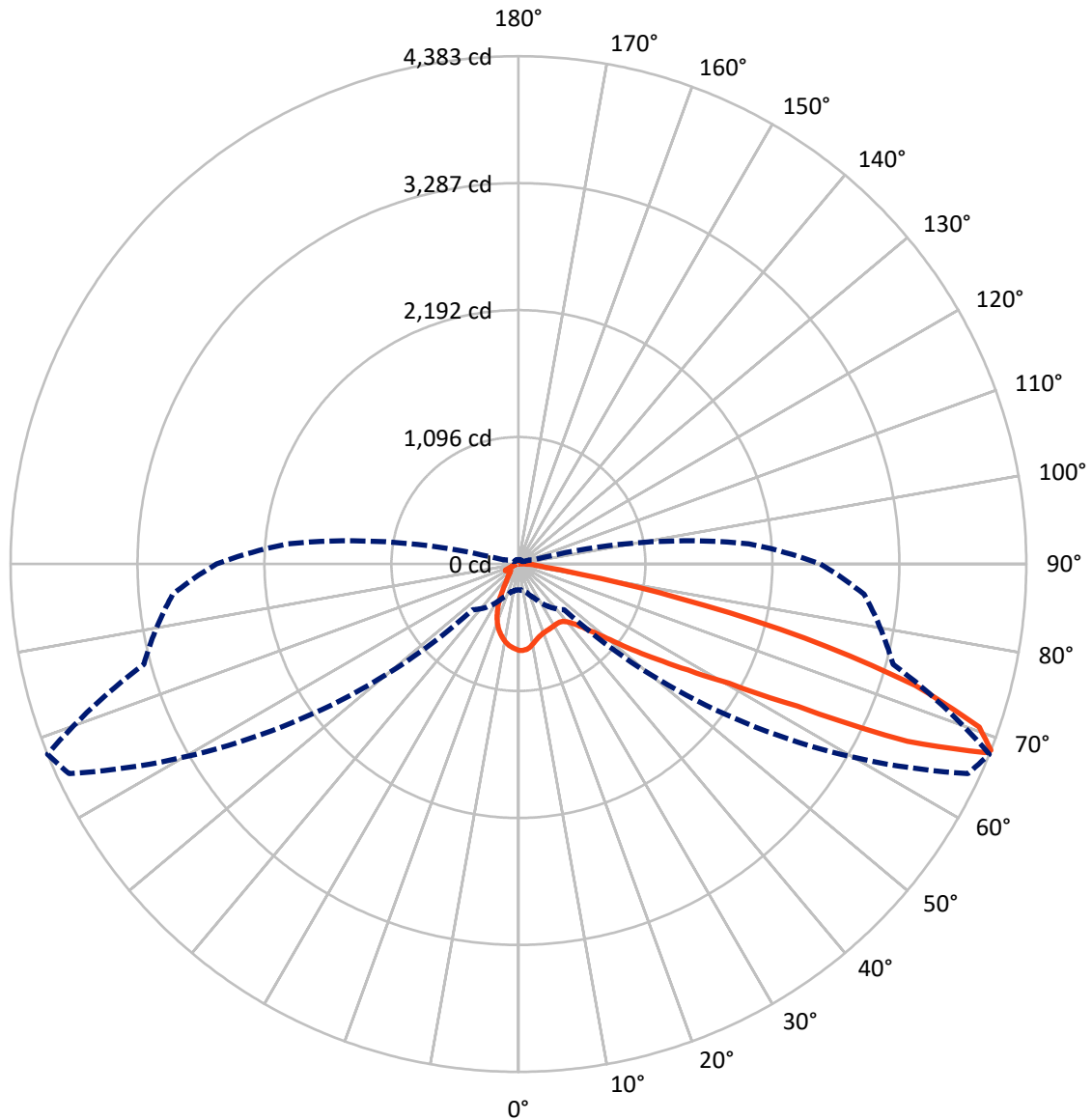
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.5 fc
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P270266
CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-7027-600

Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

REPORT NUMBER: P270266

CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-7027-600

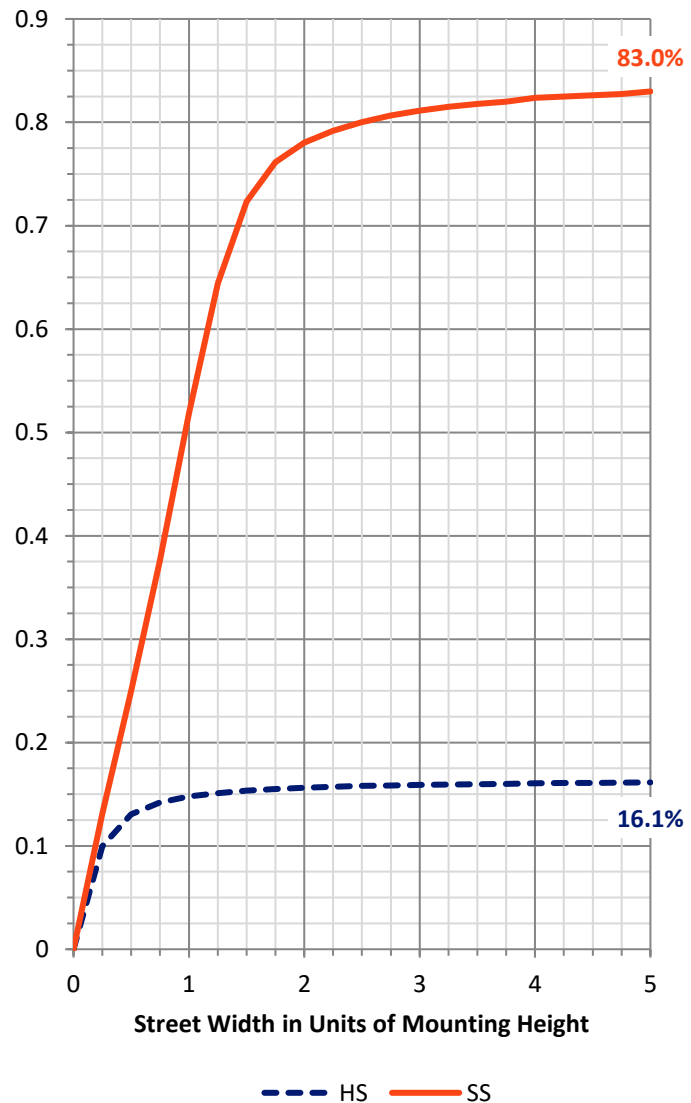
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	560.9	0.0	560.9
	% Fixture	16.4	0.0	16.4
Street Side	Lumens	2867.4	0.0	2867.4
	% Fixture	83.6	0.0	83.6
Total	Lumens	3428.3	0.0	3428.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.9	1.9
10°-20°	148.2	4.3
20°-30°	200.5	5.8
30°-40°	282.7	8.2
40°-50°	464.8	13.6
50°-60°	720.6	21.0
60°-70°	934.3	27.3
70°-80°	536.1	15.6
80°-90°	77.1	2.3
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°	3428.3	100.0
0°-180°	3428.3	100.0



REPORT NUMBER: P270266

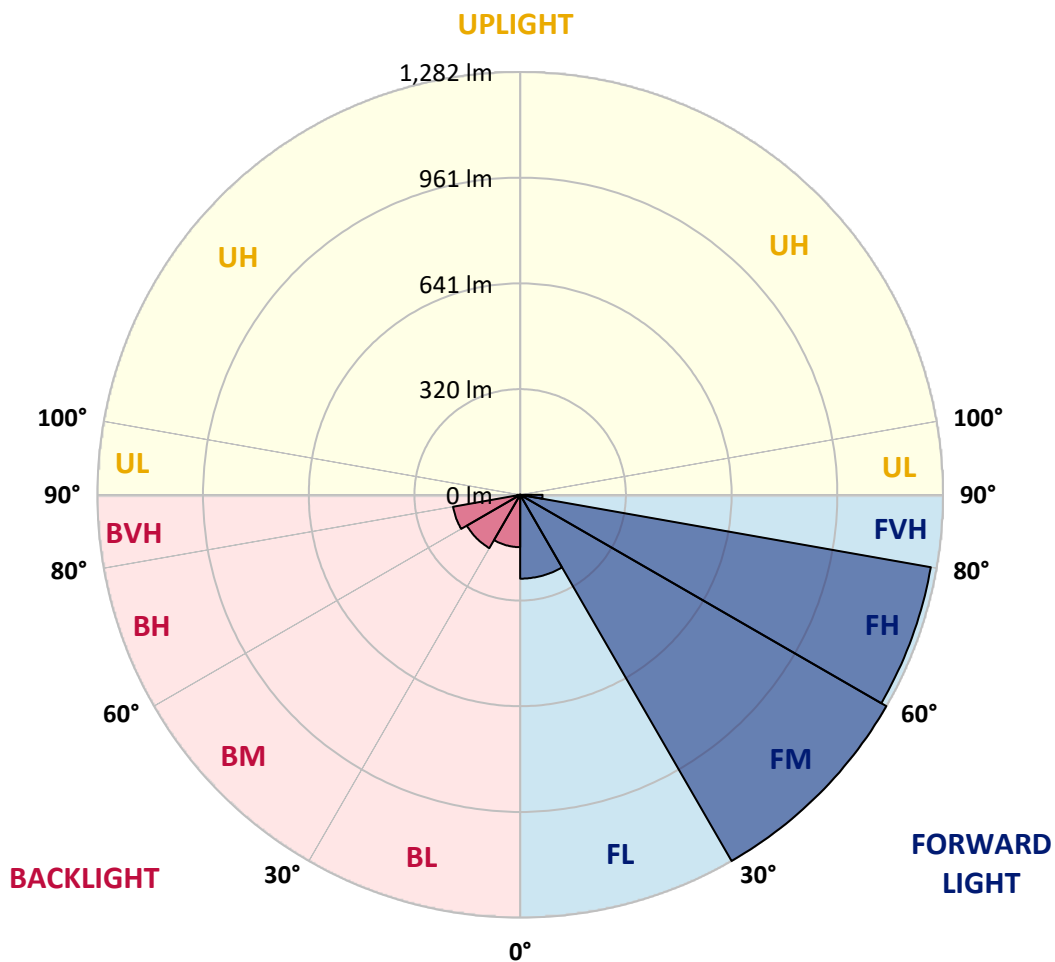
CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-7027-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	254.1	7.4			
FM	(30°-60°)	1281.6	37.4			
FH	(60°-80°)	1263.9	36.9			G1/1800
FVH	(80°-90°)	67.9	2.0			G1/100
BL	(0°-30°)	158.6	4.6	B1/500		
BM	(30°-60°)	186.5	5.4	B0/220		
BH	(60°-80°)	206.6	6.0	B1/500		G1/500
BVH	(80°-90°)	9.2	0.3			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Medium





REPORT NUMBER: P270266

CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-7027-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0
2.5°	726.0	731.8	731.8	736.2	739.9	743.1	745.8	745.8	745.8	743.9	742.4
5°	649.7	657.5	658.6	669.3	683.5	700.8	720.0	737.0	740.4	746.6	749.0
7.5°	596.7	599.1	603.3	610.7	625.0	646.3	676.6	714.6	723.9	743.4	753.8
10°	558.9	561.0	564.6	572.0	584.9	604.2	634.1	683.5	698.7	733.6	754.0
12.5°	531.4	533.1	536.4	543.0	556.3	573.6	604.0	655.6	674.3	723.9	757.2
15°	510.0	512.7	515.3	521.7	535.2	551.7	582.7	635.1	655.6	715.9	763.0
17.5°	501.4	502.7	503.2	506.6	518.6	535.5	566.4	620.8	641.7	709.8	767.5
20°	506.9	507.1	502.5	500.3	507.3	522.8	552.6	609.9	631.5	704.1	769.3
22.5°	530.3	530.3	518.6	508.8	504.0	513.7	543.6	602.7	625.8	699.8	769.3
25°	575.0	573.1	555.0	535.5	514.5	510.5	537.6	597.9	621.6	697.7	766.3
27.5°	634.1	632.1	609.1	580.2	542.7	517.3	535.7	594.0	617.5	694.2	760.1
30°	705.7	704.1	678.0	640.0	584.4	538.7	540.4	591.4	614.1	688.6	749.5
32.5°	777.2	776.1	755.4	716.7	642.3	574.6	552.6	590.9	612.3	682.0	736.8
35°	849.0	849.0	836.2	803.5	720.0	628.9	578.5	599.3	615.6	678.3	725.8
37.5°	955.2	950.9	927.1	893.4	817.8	699.2	620.1	616.7	628.6	684.4	722.2
40°	1119.5	1107.3	1047.9	991.0	924.6	789.3	681.0	650.6	657.6	705.0	730.7
42.5°	1291.6	1272.0	1193.4	1102.5	1035.0	900.3	761.0	705.3	705.2	744.9	757.8
45°	1439.1	1429.1	1344.0	1228.6	1161.1	1025.2	862.0	786.9	778.9	806.7	810.0
47.5°	1524.9	1518.1	1466.8	1362.1	1310.7	1172.7	990.1	900.0	884.8	901.4	896.1
50°	1501.1	1507.6	1492.9	1439.4	1471.6	1380.2	1153.3	1055.0	1026.1	1042.8	1030.1
52.5°	1376.2	1393.6	1406.8	1417.2	1564.0	1657.6	1358.4	1248.6	1224.6	1221.7	1209.6
55°	1151.1	1178.8	1220.4	1296.3	1539.2	1880.5	1716.8	1482.6	1447.6	1429.3	1434.0
57.5°	783.4	825.5	915.3	1059.3	1410.0	1975.5	2246.7	1784.8	1725.7	1660.3	1675.6
60°	431.5	466.7	573.6	718.6	1115.1	1961.3	2716.2	2276.2	2090.0	1916.8	1948.2
62.5°	279.3	286.9	366.4	491.0	684.4	1731.6	2977.2	3097.4	2703.1	2254.9	2299.0
65°	224.3	229.7	268.8	396.0	476.8	1113.9	2988.8	3949.3	3689.2	2714.5	2715.8
67.5°	219.2	221.7	244.2	333.0	447.3	606.4	2583.4	4285.3	4345.6	3256.9	2994.6
68°	222.4	225.2	248.1	322.8	446.9	558.9	2387.8	4280.2	4383.3	3347.5	2994.6
70°	196.2	199.8	253.1	333.9	428.0	480.7	1635.1	4052.9	4219.0	3556.1	2841.5
72.5°	102.5	99.6	125.1	263.7	481.8	500.7	863.8	3385.9	3579.8	3293.4	2454.9
75°	79.9	72.9	70.1	104.2	423.7	519.3	501.7	2406.6	2553.1	2374.1	1640.8
77.5°	75.3	66.6	61.4	61.5	186.6	540.4	405.9	1416.3	1416.3	1132.6	523.6
80°	60.5	52.5	49.0	56.0	90.0	498.1	423.6	645.4	550.5	292.7	144.2
82.5°	39.9	35.7	35.8	45.5	68.4	332.6	490.5	318.7	239.4	129.6	84.9
85°	25.3	21.6	24.2	31.8	51.1	148.3	485.5	221.5	158.6	72.9	42.3
87.5°	12.8	9.8	12.0	16.6	31.1	42.6	399.7	197.7	117.6	30.3	23.0
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: P270266

CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-7027-600

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0
2.5°	742.4	737.5	735.1	731.0	726.0	721.1	717.7	716.2	715.3	715.7	715.5
5°	747.7	741.3	730.7	715.7	700.3	683.9	671.5	661.8	655.8	654.0	653.4
7.5°	751.8	742.4	722.6	695.4	669.0	640.2	615.9	596.4	583.2	577.2	576.9
10°	751.2	739.0	708.0	667.6	628.9	586.8	548.4	515.7	492.0	480.7	480.1
12.5°	751.8	735.3	689.8	635.1	579.5	519.3	462.4	411.7	376.2	359.4	358.8
15°	754.4	731.2	671.2	598.8	522.0	436.9	355.5	291.8	259.6	248.7	248.7
17.5°	754.2	724.5	649.7	556.7	453.7	339.6	242.7	203.3	200.2	210.4	211.9
20°	749.7	713.8	621.8	506.9	373.5	235.1	164.6	159.0	184.2	211.9	215.0
22.5°	742.9	699.8	589.8	448.9	280.1	153.3	127.0	135.5	169.5	204.1	208.9
25°	733.1	683.0	553.1	381.4	186.3	110.2	105.9	116.5	140.4	163.5	167.1
27.5°	719.2	661.8	513.0	308.4	118.9	90.6	92.3	99.6	110.0	119.8	121.8
30°	701.3	636.9	469.5	227.5	90.3	81.0	83.7	88.3	92.7	99.1	100.3
32.5°	683.5	611.6	423.9	156.3	78.8	75.9	78.6	81.0	84.9	89.1	90.0
35°	667.4	588.1	377.1	109.1	73.9	72.6	73.9	75.5	79.3	83.5	84.0
37.5°	655.8	568.8	328.3	86.1	71.0	69.7	70.2	71.0	75.5	81.7	82.5
40°	654.1	556.1	278.8	77.4	68.7	67.0	66.6	67.0	72.9	79.9	80.6
42.5°	669.3	556.7	230.4	73.9	67.0	64.9	63.2	64.0	69.2	74.7	75.3
45°	705.3	572.4	188.6	72.4	65.3	63.8	61.2	61.5	64.0	67.0	67.5
47.5°	768.9	606.6	156.6	71.4	64.0	62.7	59.4	58.0	58.2	59.7	59.7
50°	870.6	663.9	137.0	70.5	62.9	60.5	56.7	54.0	53.3	54.2	54.3
52.5°	1022.4	762.3	127.6	68.7	60.9	57.5	53.3	50.7	49.4	50.3	50.3
55°	1227.3	919.3	123.2	66.3	58.5	54.0	50.1	47.9	47.0	47.7	47.7
57.5°	1460.9	1123.3	130.9	62.9	55.3	50.1	47.5	46.0	45.3	46.0	46.2
60°	1738.3	1390.2	183.2	58.7	51.9	46.8	45.3	44.3	43.8	44.6	44.6
62.5°	2107.2	1745.4	283.5	55.3	48.4	43.7	43.2	42.8	42.3	42.9	42.9
65°	2505.4	2068.5	291.8	53.3	45.3	41.1	41.2	41.2	40.8	41.4	41.4
67.5°	2632.0	2040.6	163.0	50.8	41.4	38.3	39.2	39.2	38.9	39.6	39.4
68°	2605.2	1996.3	142.0	50.1	40.8	37.5	38.4	38.7	38.4	39.2	38.9
70°	2405.0	1752.7	93.3	46.4	37.9	35.5	36.7	36.9	36.7	37.5	37.4
72.5°	1985.3	1314.6	69.0	40.6	34.2	32.5	33.9	34.0	34.2	35.2	34.9
75°	1260.9	726.0	54.3	34.5	30.7	29.1	30.5	31.1	31.6	32.9	32.2
77.5°	345.3	220.4	44.1	29.4	26.4	25.7	26.7	27.6	27.9	29.6	28.4
80°	120.9	97.5	36.7	24.9	22.0	21.6	22.5	23.5	24.0	25.3	24.0
82.5°	73.4	63.6	29.4	19.6	17.2	17.0	18.1	19.0	19.6	19.6	18.5
85°	38.3	33.5	21.5	13.7	11.9	11.1	13.2	14.4	14.6	14.4	13.7
87.5°	21.5	19.0	11.4	6.5	5.4	5.6	6.9	8.5	9.3	9.0	8.5
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)