

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: P270310

Luminaire Tested: **NAV-AF-01-D-UNV-T3R-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270310
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-7027-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3556.9 lumens
Efficiency: N/A
Efficacy: 104.6 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

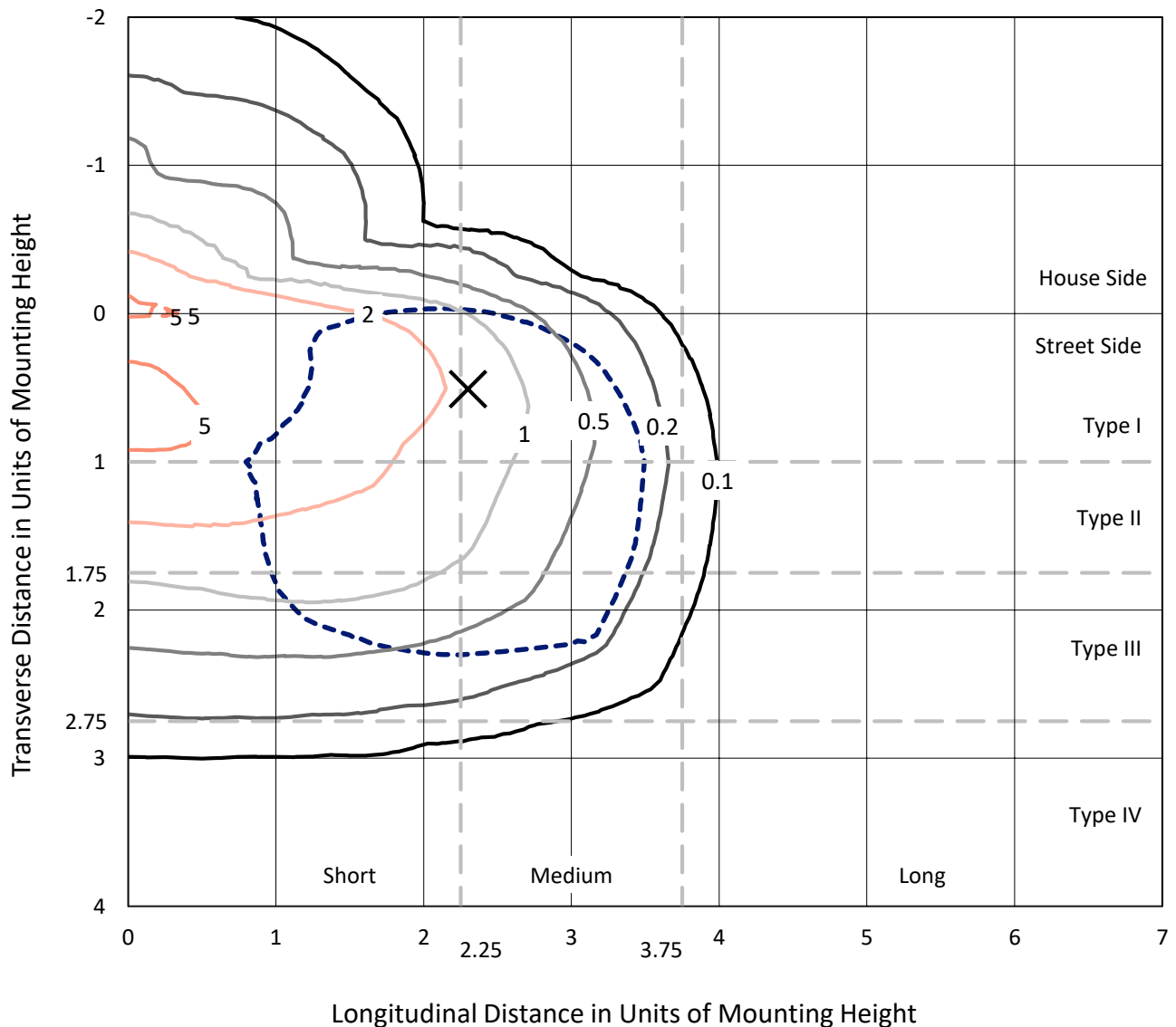
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P270310
 CATALOG NUMBER: NAV-AF-01-D-UNV-T3R-7027-600

Iso-Footcandle Lines of Horizontal Illumination

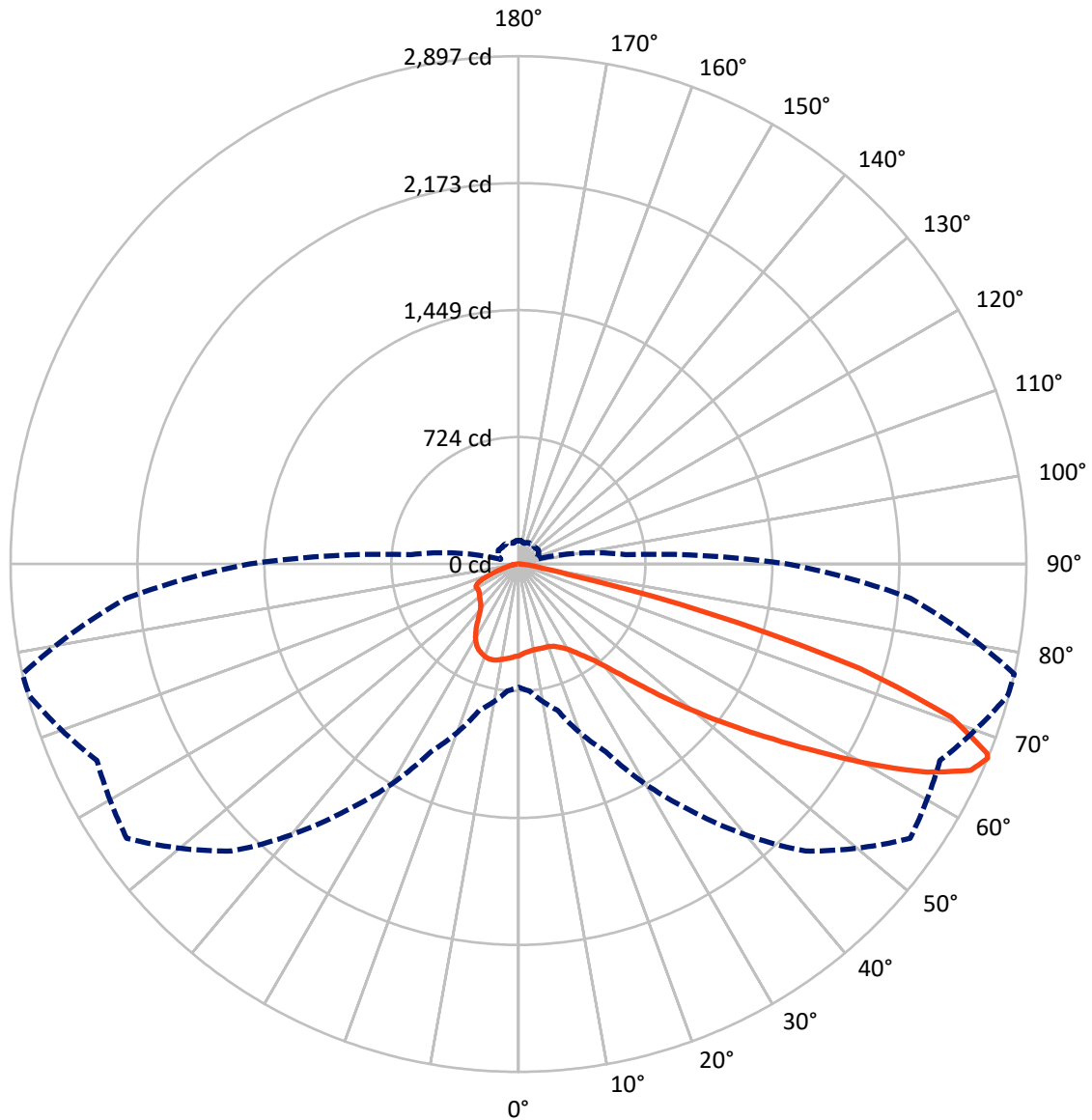
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.3 fc
 Type III - Medium - Full Cutoff

REPORT NUMBER: P270310
CATALOG NUMBER: NAV-AF-01-D-UNV-T3R-7027-600

Luminous Intensity Polar Plot



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

REPORT NUMBER: P270310

CATALOG NUMBER: NAV-AF-01-D-UNV-T3R-7027-600

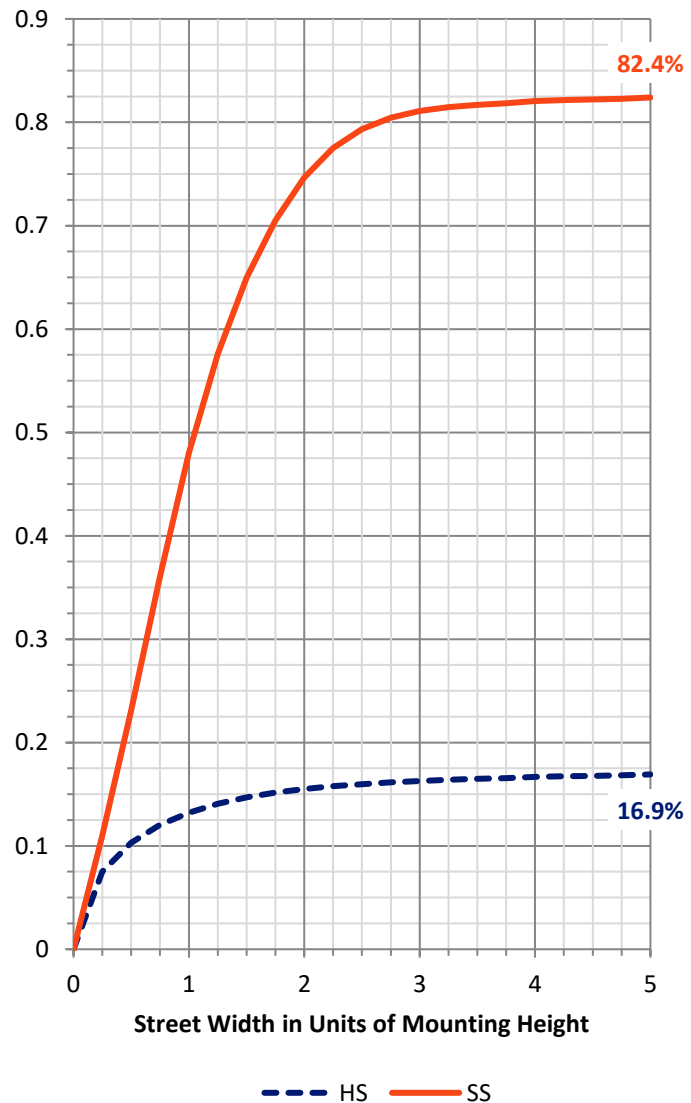
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	611.2	0.0	611.2
	% Fixture	17.2	0.0	17.2
Street Side	Lumens	2945.6	0.0	2945.6
	% Fixture	82.8	0.0	82.8
Total	Lumens	3556.9	0.0	3556.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.6	1.3
10°-20°	129.1	3.6
20°-30°	219.4	6.2
30°-40°	351.0	9.9
40°-50°	540.3	15.2
50°-60°	749.6	21.1
60°-70°	999.9	28.1
70°-80°	475.9	13.4
80°-90°	45.0	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°	3556.9	100.0
0°-180°	3556.9	100.0



REPORT NUMBER: P270310

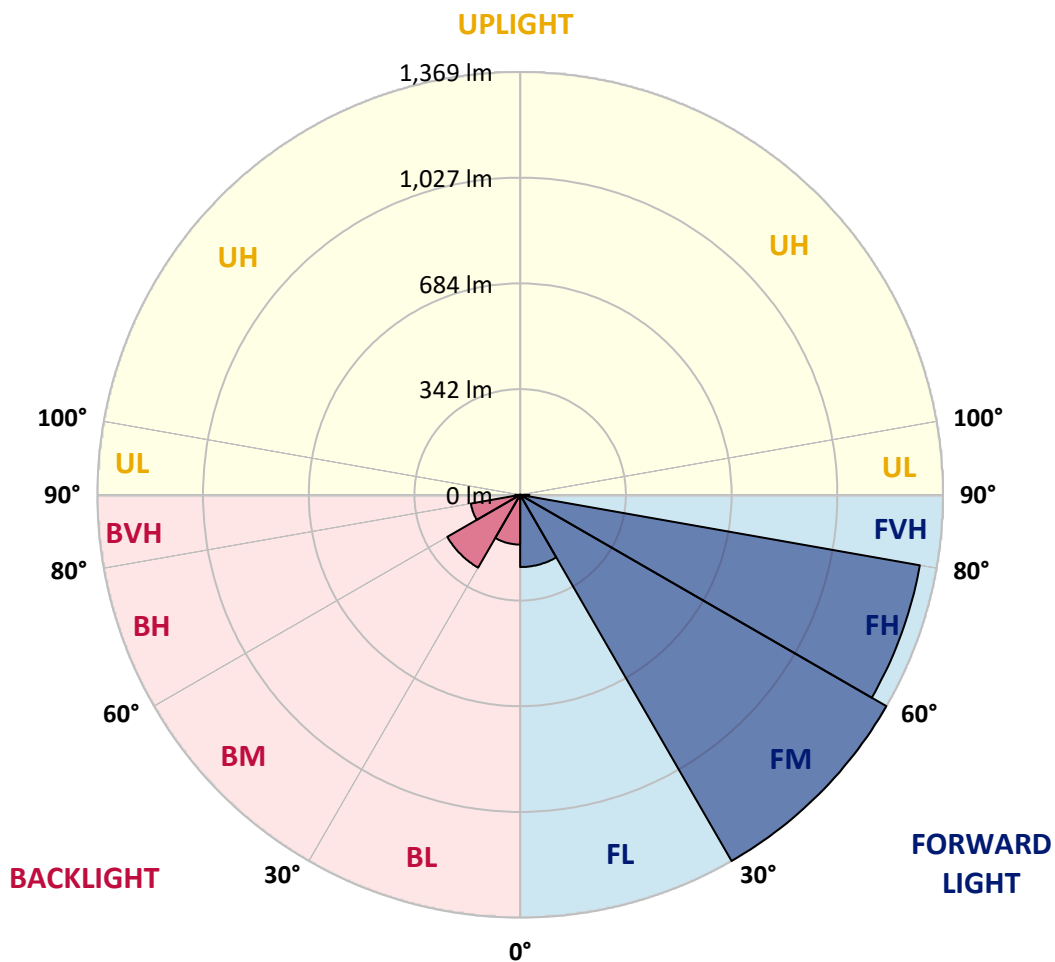
CATALOG NUMBER: NAV-AF-01-D-UNV-T3R-7027-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	233.9	6.6			
FM	(30°-60°)	1368.7	38.5			
FH	(60°-80°)	1313.7	36.9			G1/1800
FVH	(80°-90°)	29.2	0.8			G1/100
BL	(0°-30°)	161.2	4.5	B1/500		
BM	(30°-60°)	272.2	7.7	B1/1000		
BH	(60°-80°)	162.1	4.6	B1/500		G1/500
BVH	(80°-90°)	15.8	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





REPORT NUMBER: P270310

CATALOG NUMBER: NAV-AF-01-D-UNV-T3R-7027-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	523.5	523.5	523.5	523.5	523.5	523.5	523.5	523.5	523.5	523.5	523.5
2.5°	469.5	471.6	471.8	478.2	481.0	488.3	496.3	503.2	509.3	511.7	515.5
5°	422.4	422.4	423.0	427.1	435.3	446.9	463.4	481.5	500.4	504.9	516.6
7.5°	397.7	398.2	398.6	402.8	409.2	419.5	435.9	460.7	492.0	499.7	520.2
10°	399.9	399.2	397.1	396.2	398.8	405.5	419.7	445.0	485.1	496.9	526.5
12.5°	434.4	433.2	425.8	415.2	405.7	403.2	413.1	437.0	481.8	496.9	537.4
15°	493.6	494.4	480.1	458.1	433.0	415.7	414.5	434.2	480.7	498.2	549.9
17.5°	570.6	571.0	551.2	519.3	477.3	442.0	423.5	434.2	480.7	499.5	562.0
20°	652.3	649.3	626.7	586.9	532.2	478.2	439.9	436.8	481.9	501.6	573.4
22.5°	722.4	719.6	696.0	654.1	591.7	521.0	462.2	445.6	489.1	509.6	589.5
25°	783.9	785.6	762.8	715.4	650.8	569.4	495.3	466.0	504.4	524.4	609.2
27.5°	858.3	855.0	828.6	783.6	711.6	619.6	536.8	491.5	522.4	542.1	633.5
30°	944.5	943.0	907.4	860.9	778.7	675.6	578.0	519.0	545.9	566.7	663.8
32.5°	1049.2	1049.0	1010.8	953.7	854.2	738.9	626.6	556.5	580.2	601.1	704.0
35°	1167.6	1167.4	1127.8	1052.6	941.0	809.1	683.8	602.3	622.6	644.7	751.9
37.5°	1249.9	1248.6	1228.0	1155.0	1037.1	890.6	755.2	663.8	670.8	695.4	809.7
40°	1265.7	1273.6	1291.5	1248.4	1141.9	981.2	826.9	730.0	736.5	768.2	882.6
42.5°	1248.6	1259.0	1318.1	1330.1	1246.8	1090.9	916.6	821.6	829.9	869.3	968.1
45°	1233.6	1242.6	1316.7	1375.5	1350.3	1210.6	1028.5	933.5	949.4	998.1	1065.7
47.5°	1208.1	1216.5	1290.8	1383.6	1409.5	1325.8	1163.2	1068.1	1095.4	1154.5	1176.9
50°	1206.9	1210.6	1255.4	1356.4	1429.9	1413.3	1312.6	1225.5	1267.2	1335.4	1299.9
52.5°	1173.4	1199.5	1240.2	1312.8	1430.5	1464.2	1459.7	1398.1	1462.5	1537.9	1435.0
55°	968.9	999.0	1189.6	1291.5	1427.8	1508.1	1594.0	1581.6	1682.3	1761.8	1586.2
57.5°	904.8	917.4	1043.7	1297.8	1449.8	1580.4	1728.2	1778.9	1934.0	2020.5	1767.7
60°	887.2	900.6	1014.5	1300.8	1509.3	1712.0	1910.5	2001.6	2229.6	2321.5	1973.7
62.5°	867.6	884.9	1016.6	1303.8	1614.0	1906.8	2152.3	2243.2	2533.2	2615.1	2166.7
65°	810.5	833.4	976.0	1285.7	1728.5	2151.4	2472.0	2495.1	2784.0	2836.2	2283.2
67°	702.0	727.3	864.3	1181.5	1718.0	2316.0	2727.8	2652.9	2890.7	2897.0	2245.5
67.5°	667.7	693.9	826.4	1138.2	1687.8	2337.5	2773.1	2674.6	2889.8	2882.8	2210.2
70°	449.6	479.1	585.2	835.7	1353.8	2175.4	2762.1	2607.5	2700.2	2619.5	1898.8
72.5°	223.1	224.0	291.9	457.7	820.3	1560.4	2304.2	2230.8	2188.9	2036.5	1393.5
75°	107.4	109.6	137.9	202.3	345.8	805.6	1571.3	1505.1	1281.5	1109.6	697.4
77.5°	82.0	84.0	107.1	131.7	144.2	262.8	778.3	629.1	371.3	296.6	196.5
80°	63.3	67.1	90.4	101.1	95.4	105.3	244.7	192.5	144.4	132.6	97.3
82.5°	49.4	51.7	76.7	76.7	65.9	70.5	113.8	111.2	89.7	80.8	52.3
85°	34.9	39.3	61.8	57.1	43.3	43.7	68.1	65.2	46.2	37.2	20.4
87.5°	15.6	20.0	43.9	37.4	23.0	17.7	27.8	24.0	18.2	14.1	9.4
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: P270310

CATALOG NUMBER: NAV-AF-01-D-UNV-T3R-7027-600

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	523.5	523.5	523.5	523.5	523.5	523.5	523.5	523.5	523.5	523.5	523.5
2.5°	519.9	523.5	529.0	532.2	536.6	538.4	540.2	543.3	545.7	545.0	544.0
5°	524.8	530.7	537.5	539.7	539.7	537.5	536.2	536.5	535.7	535.4	534.0
7.5°	531.8	540.1	544.8	542.5	535.7	527.2	519.1	514.2	509.6	506.7	507.6
10°	541.8	550.8	551.0	541.3	525.0	506.4	490.3	480.0	470.1	465.6	466.9
12.5°	556.1	565.0	557.4	536.5	507.9	478.6	449.2	427.9	408.6	404.1	402.8
15°	571.4	578.5	561.4	526.0	483.3	435.0	385.6	353.8	332.5	328.7	327.3
17.5°	584.8	588.7	559.4	507.6	444.3	368.5	310.9	289.3	284.9	287.2	287.2
20°	596.7	595.3	550.8	479.1	382.9	294.6	261.1	261.0	266.8	272.4	272.8
22.5°	611.7	601.3	537.0	436.7	309.7	245.7	240.0	245.7	252.5	258.5	259.3
25°	629.4	608.0	519.0	376.2	249.1	223.1	225.6	230.4	234.5	239.4	239.7
27.5°	647.3	613.0	493.1	305.2	216.1	208.6	211.3	213.3	214.3	217.4	217.4
30°	667.9	617.0	456.0	244.5	201.0	195.9	194.4	193.4	194.4	198.5	198.7
32.5°	693.9	624.0	405.1	209.8	193.9	186.8	178.9	174.6	177.7	185.1	186.5
35°	723.3	632.2	344.3	195.9	191.5	182.4	168.0	161.2	162.2	169.2	170.1
37.5°	760.2	643.0	284.3	192.5	193.9	182.0	163.0	153.3	148.4	148.6	148.4
40°	807.5	653.8	236.9	193.4	199.2	183.2	160.4	145.3	135.3	135.6	136.5
42.5°	857.1	661.0	206.7	196.1	205.5	184.7	159.5	137.6	128.8	136.4	143.1
45°	914.8	658.8	191.1	198.5	210.5	185.3	156.3	136.7	129.4	152.0	164.7
47.5°	981.2	650.4	182.3	199.7	211.7	185.1	153.9	139.5	134.9	173.9	188.5
50°	1053.4	636.9	175.2	197.8	211.0	184.2	156.6	143.1	137.3	178.8	189.9
52.5°	1132.3	624.6	168.0	193.9	207.8	181.5	159.9	141.7	131.1	164.7	173.3
55°	1225.6	621.7	159.9	187.0	202.3	178.8	158.1	136.7	124.2	146.0	151.3
57.5°	1332.5	639.6	149.3	178.8	194.8	173.1	153.9	134.0	121.8	132.8	135.6
60°	1468.2	678.8	138.1	170.0	185.6	164.5	150.1	134.7	122.4	130.9	131.5
62.5°	1574.2	714.3	128.0	159.2	173.3	154.1	146.2	135.5	124.4	133.5	132.4
65°	1612.6	696.9	115.4	143.1	155.9	142.7	140.8	135.9	124.4	134.9	132.6
67°	1533.8	614.0	103.6	127.1	139.3	132.6	135.5	134.0	122.2	134.7	130.7
67.5°	1496.1	584.8	100.5	124.4	134.9	129.4	134.0	133.2	121.6	134.3	129.4
70°	1233.8	419.5	84.9	104.5	112.9	114.2	126.0	127.5	116.3	126.2	117.4
72.5°	878.0	262.6	73.2	80.8	91.3	97.6	115.1	119.8	109.2	109.8	102.4
75°	434.4	140.9	65.2	62.4	71.1	81.3	100.3	109.2	99.0	91.4	89.0
77.5°	146.7	79.8	55.2	50.3	55.2	65.2	83.2	95.4	87.2	77.4	75.8
80°	75.8	58.0	43.1	40.5	43.6	50.6	65.0	79.4	74.5	75.0	61.8
82.5°	47.3	35.5	31.0	30.8	33.0	38.6	47.9	64.4	64.0	54.7	39.7
85°	22.0	20.4	19.9	20.4	21.1	22.0	31.3	46.0	48.6	29.5	26.2
87.5°	9.3	9.1	7.9	8.5	9.4	9.3	12.5	19.6	27.3	18.4	16.9
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)