

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: P270247

Luminaire Tested: **NAV-AF-01-D-UNV-5NQ-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270247
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24130)
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-5NQ-7027-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 800mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4408.8 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 V - Short - Full Cutoff
BUG Rating: B2 - U0 - G1

Input Watts (W): 44
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

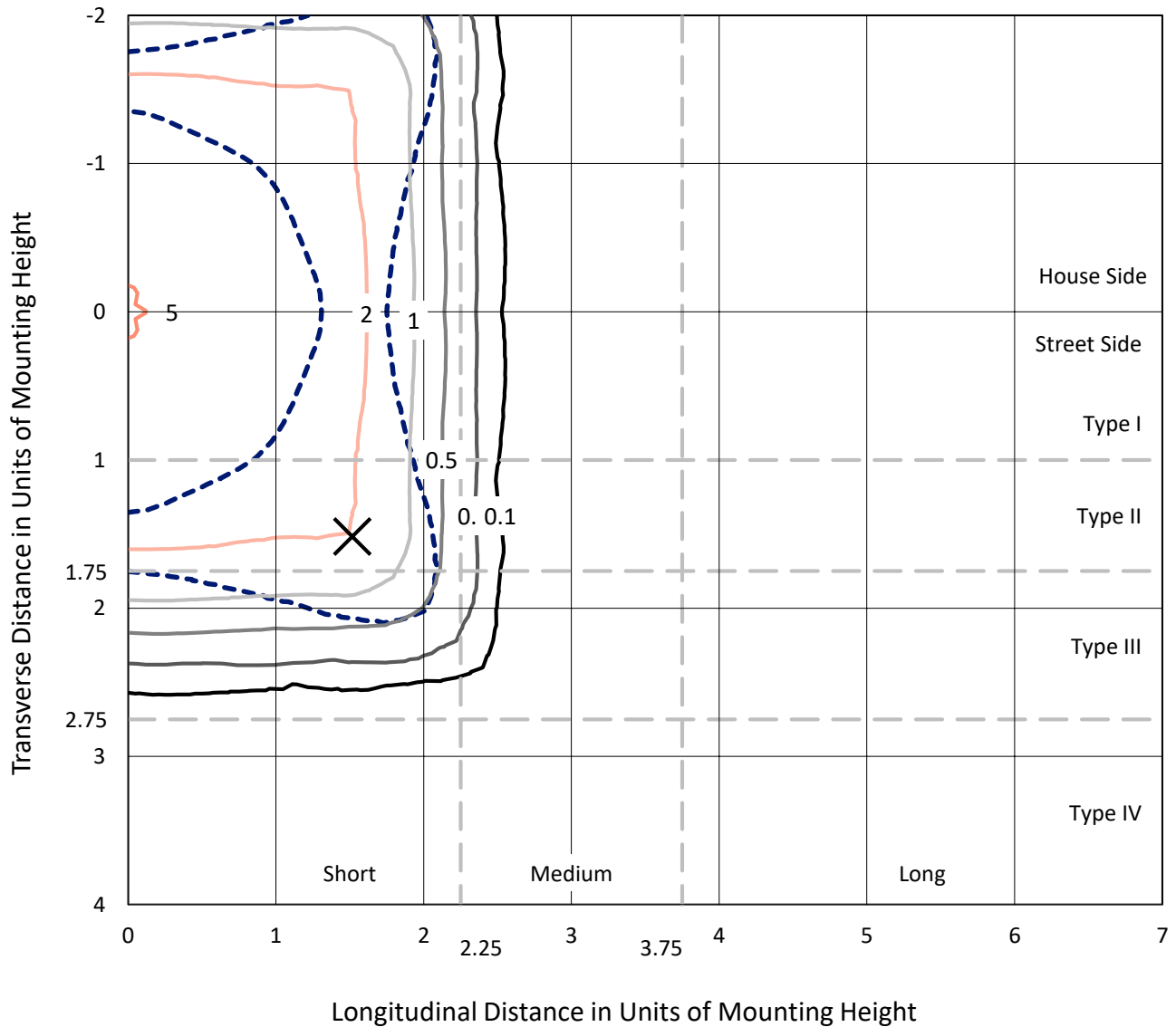


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

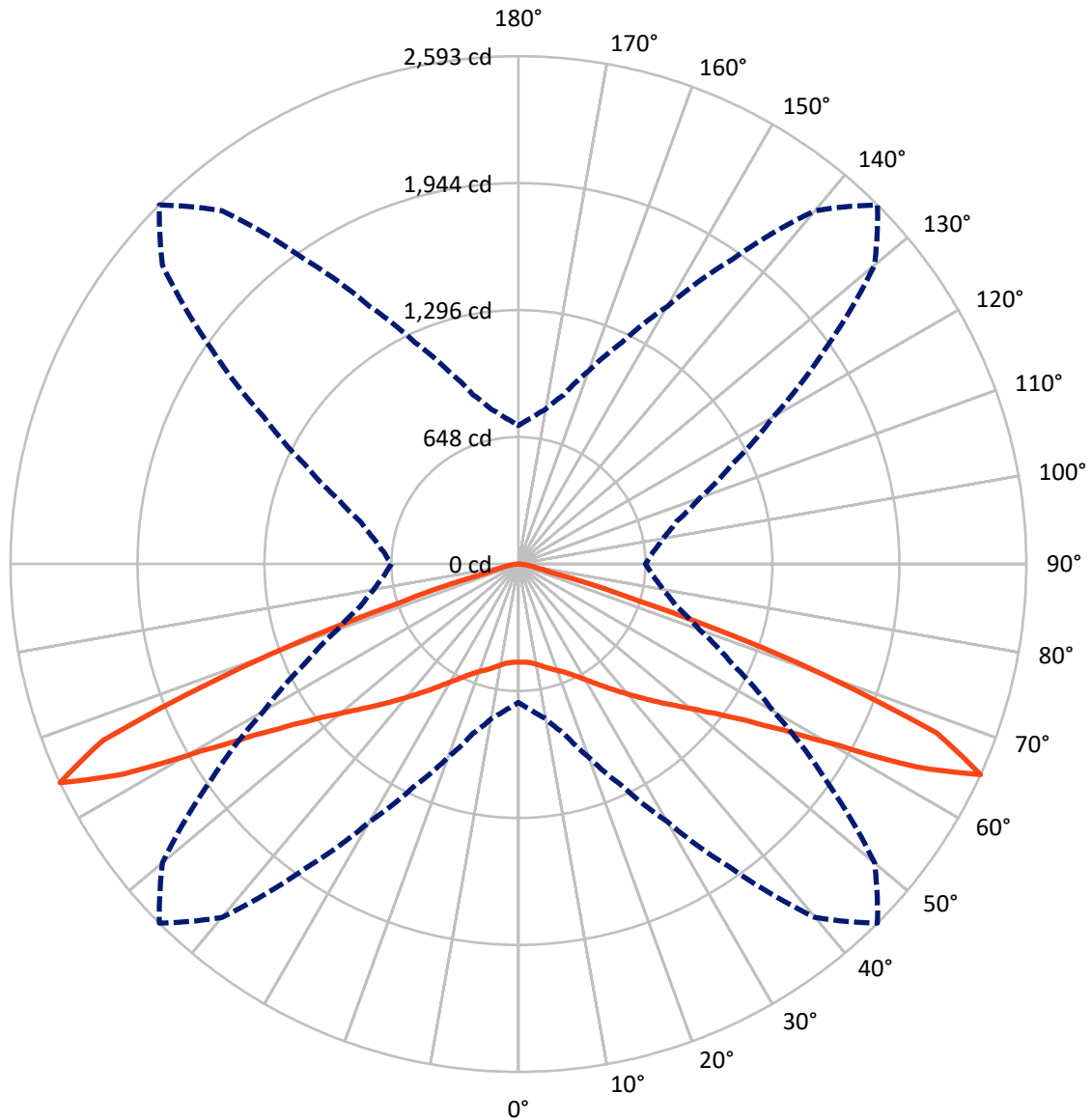


Based on 10 foot mounting height. Maximum calculated value = 5 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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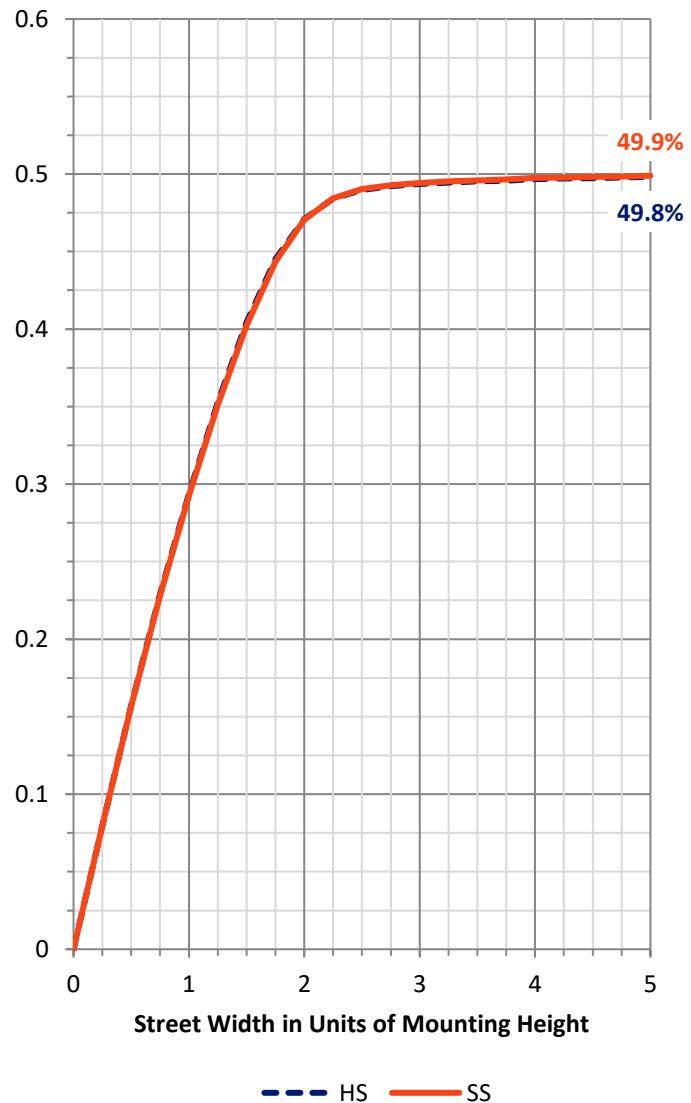
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2204.4	0.0	2204.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2204.4	0.0	2204.4
	% Fixture	50.0	0.0	50.0
Total	Lumens	4408.8	0.0	4408.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.8	1.1
10°-20°	156.5	3.6
20°-30°	292.0	6.6
30°-40°	492.3	11.2
40°-50°	799.7	18.1
50°-60°	1253.0	28.4
60°-70°	1182.8	26.8
70°-80°	159.4	3.6
80°-90°	24.3	0.6
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°	4408.8	100.0
0°-180°	4408.8	100.0

Coefficient of Utilization



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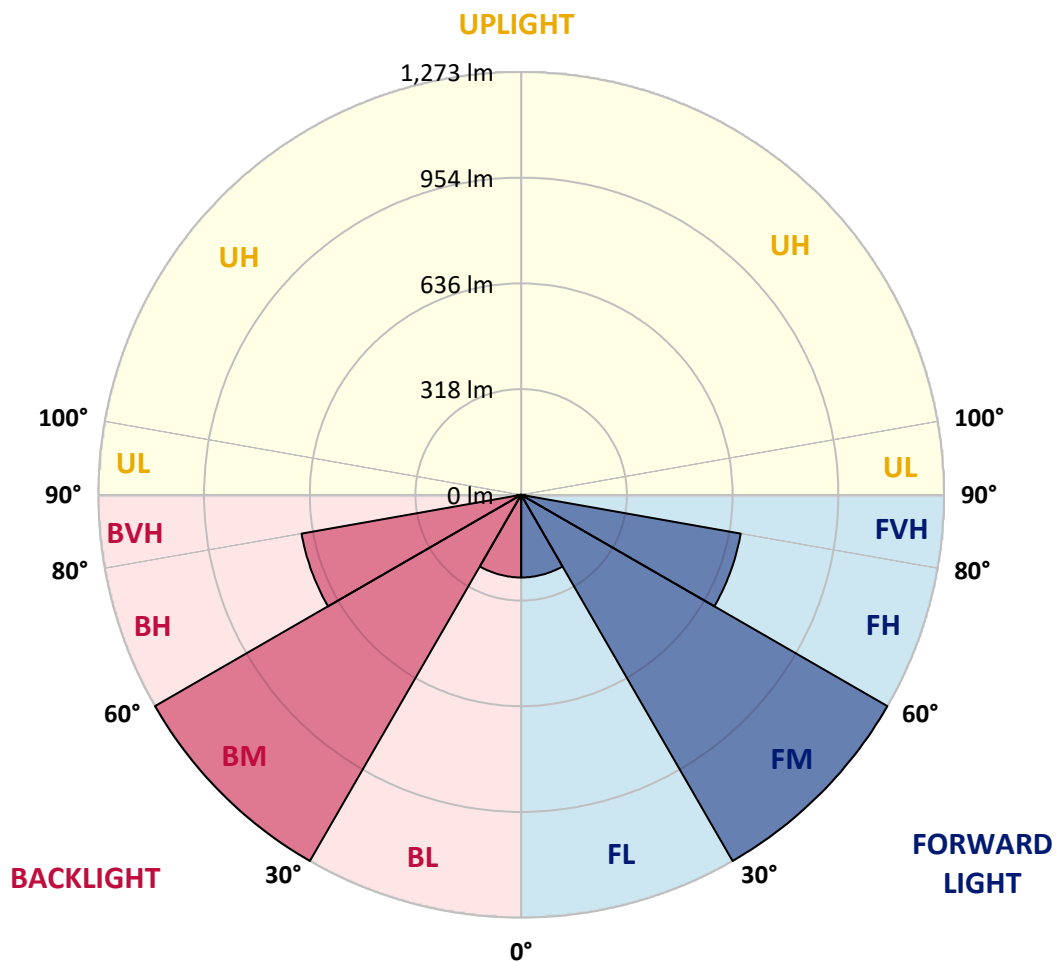
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	248.7	5.6			
FM	(30°-60°)	1272.5	28.9			
FH	(60°-80°)	671.1	15.2			G1/1800
FVH	(80°-90°)	12.1	0.3			G1/100
BL	(0°-30°)	248.7	5.6	B1/500		
BM	(30°-60°)	1272.5	28.9	B2/2500		
BH	(60°-80°)	671.1	15.2	B2/1000		G1/1800
BVH	(80°-90°)	12.1	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	501.6	501.6	501.6	501.6	501.6	501.6	501.6	501.6	501.6	501.6	501.6
2.5°	505.7	505.7	506.5	506.1	505.0	504.3	503.4	502.3	501.8	501.3	501.0
5°	508.4	508.4	509.2	508.9	508.1	507.1	506.5	505.7	504.8	504.3	504.5
7.5°	515.3	515.4	515.7	515.4	514.6	513.9	512.8	512.6	511.3	510.5	511.1
10°	525.7	525.7	526.0	526.1	525.7	523.7	523.7	523.3	522.0	520.9	521.2
12.5°	537.1	537.1	537.5	537.5	537.5	536.4	536.6	536.4	535.0	534.4	535.0
15°	548.4	548.8	548.8	549.3	549.3	549.6	550.7	550.7	550.1	549.9	549.9
17.5°	561.6	562.2	562.5	563.2	563.5	564.1	565.3	565.6	565.8	564.9	565.3
20°	579.1	579.4	580.3	580.6	581.7	581.7	582.2	581.9	581.5	580.3	580.3
22.5°	599.0	599.6	601.1	601.1	602.6	601.8	602.0	601.1	599.8	599.3	598.7
25°	624.9	625.6	626.9	626.5	626.9	625.6	625.6	625.6	624.9	624.1	623.8
27.5°	657.5	656.1	657.5	656.4	656.1	655.0	655.4	654.8	654.0	653.6	652.6
30°	691.5	689.9	690.7	690.9	690.4	690.2	689.1	688.2	686.8	687.2	686.3
32.5°	730.5	729.0	729.8	730.1	729.5	730.1	729.8	727.7	726.2	727.3	727.3
35°	776.9	775.9	778.0	778.9	777.3	776.5	775.2	773.1	770.7	772.4	772.5
37.5°	832.6	831.3	833.0	835.2	832.2	830.6	826.1	822.8	821.2	821.9	823.0
40°	890.7	890.9	895.6	896.1	892.8	890.9	886.5	881.5	876.9	876.9	878.4
42.5°	951.7	952.5	958.0	959.8	958.9	955.2	949.1	943.1	937.1	938.2	939.8
45°	1020.6	1019.4	1025.2	1029.8	1029.1	1028.0	1022.2	1011.2	1005.7	1005.5	1008.2
47.5°	1093.1	1095.3	1101.3	1109.2	1109.0	1106.3	1098.8	1088.7	1078.5	1079.4	1082.6
50°	1177.7	1180.7	1190.9	1198.8	1200.0	1199.1	1190.3	1178.4	1164.3	1165.0	1169.5
52.5°	1253.5	1257.8	1269.7	1286.2	1296.3	1300.9	1295.3	1284.2	1269.7	1270.6	1275.1
55°	1322.1	1329.0	1346.6	1369.0	1389.4	1408.4	1416.8	1416.5	1405.8	1408.4	1414.4
57.5°	1365.2	1374.9	1401.4	1437.7	1478.2	1516.2	1549.2	1580.3	1587.1	1600.2	1600.2
60°	1307.4	1329.9	1365.2	1427.2	1506.6	1592.3	1685.2	1775.6	1833.8	1879.7	1854.9
62.5°	1091.7	1124.9	1174.7	1256.5	1380.1	1533.0	1719.5	1929.6	2148.7	2282.9	2184.5
65°	706.3	748.1	802.2	894.3	1049.9	1246.8	1518.5	1896.1	2354.7	2592.6	2373.0
67.5°	279.8	308.2	341.0	406.5	541.6	735.0	1039.8	1505.6	2079.3	2303.8	2057.4
70°	133.8	138.3	144.7	158.7	192.5	259.8	417.7	741.8	1275.1	1511.7	1244.7
72.5°	96.7	97.5	100.5	105.2	115.1	128.7	156.6	226.8	439.7	639.4	440.3
75°	73.3	74.4	76.0	78.5	83.7	90.4	100.8	120.8	150.5	173.6	150.2
77.5°	55.8	56.9	58.2	60.6	63.4	68.1	72.0	79.9	92.5	97.5	96.9
80°	40.7	42.6	44.7	46.9	48.9	51.1	51.4	55.2	62.3	67.1	65.7
82.5°	25.8	27.5	33.2	35.8	36.0	36.6	36.2	36.6	40.3	43.7	42.6
85°	16.4	17.5	20.7	23.4	22.7	23.9	23.9	23.4	21.6	18.7	22.3
87.5°	8.3	8.5	9.9	12.3	11.8	10.4	10.2	10.2	7.5	6.3	6.8
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	501.6	501.6	501.6	501.6	501.6	501.6	501.6	501.6
2.5°	500.1	500.6	499.8	499.8	499.5	500.1	499.3	499.3
5°	503.9	504.8	504.5	504.5	505.0	505.7	505.3	505.0
7.5°	510.9	511.3	511.9	512.3	512.8	512.6	513.0	512.8
10°	521.2	520.7	521.6	520.7	520.9	520.5	520.7	520.7
12.5°	534.4	533.7	533.1	532.5	532.5	531.4	531.4	531.6
15°	549.6	548.1	547.1	546.6	546.0	546.0	545.2	545.7
17.5°	564.3	563.0	561.1	561.1	560.3	559.7	559.1	560.5
20°	580.0	578.7	577.6	577.3	575.6	575.2	575.4	577.0
22.5°	598.2	597.4	597.4	596.8	595.7	594.9	594.9	596.8
25°	622.6	621.0	621.3	621.4	621.0	621.0	620.4	621.7
27.5°	652.6	651.2	652.0	652.6	652.0	652.8	652.0	653.1
30°	687.7	686.8	687.7	688.6	687.2	687.2	686.7	687.5
32.5°	729.8	728.6	729.2	729.2	727.3	725.7	723.5	725.0
35°	775.9	774.5	775.5	776.5	774.2	772.5	769.3	770.7
37.5°	826.7	827.2	828.5	832.2	831.7	828.9	826.4	827.5
40°	883.6	886.3	892.2	894.8	894.3	891.5	888.2	888.8
42.5°	947.8	951.3	957.7	961.7	959.8	956.1	951.9	953.6
45°	1017.8	1023.3	1031.6	1035.7	1033.2	1029.1	1023.3	1026.4
47.5°	1092.0	1102.9	1114.0	1119.5	1118.6	1112.8	1105.5	1106.3
50°	1180.7	1195.3	1209.3	1214.8	1210.6	1201.8	1191.4	1191.2
52.5°	1291.1	1306.8	1318.4	1316.9	1306.8	1293.0	1281.3	1280.7
55°	1428.9	1434.1	1432.5	1420.7	1402.9	1381.5	1366.3	1363.8
57.5°	1595.7	1578.1	1552.4	1516.6	1476.5	1435.9	1408.4	1398.2
60°	1799.5	1720.1	1627.8	1530.6	1441.9	1375.5	1333.4	1307.8
62.5°	1967.7	1738.0	1531.7	1362.8	1224.6	1142.6	1085.2	1049.7
65°	1910.2	1501.4	1202.7	984.9	834.0	749.2	688.6	648.1
67.5°	1475.6	1003.2	698.2	483.9	366.9	310.6	271.4	245.7
70°	743.9	384.7	233.2	164.5	140.7	130.8	124.1	120.4
72.5°	218.4	145.9	121.1	107.1	98.6	92.5	88.8	86.7
75°	120.8	98.6	87.0	79.1	73.7	69.4	67.1	65.3
77.5°	83.3	71.7	65.9	60.6	56.4	53.3	51.4	49.6
80°	58.2	52.5	49.9	47.3	43.9	41.5	38.7	37.5
82.5°	38.7	36.2	35.8	33.4	31.6	28.8	23.9	22.3
85°	22.7	22.5	22.5	21.6	20.3	17.8	14.4	14.4
87.5°	7.9	8.3	8.5	9.1	8.9	7.5	6.1	5.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)