

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: P459867

Luminaire Tested: **NAV-SA5A-AMB-U-SL2**

Issue Date: 1/6/2021

Test Information

Test Method: LM-79-08
Report Number: P459867
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2003-697-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA5A-AMB-U-SL2
Description: NAVION AREA AND ROADWAY LUMINAIRE
(5) NARROW BAND AMBER, 500mA LIGHTSQUARES 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: 5357 lumens
Efficiency: N/A
Efficacy: 53.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 101
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: 28.75 FT

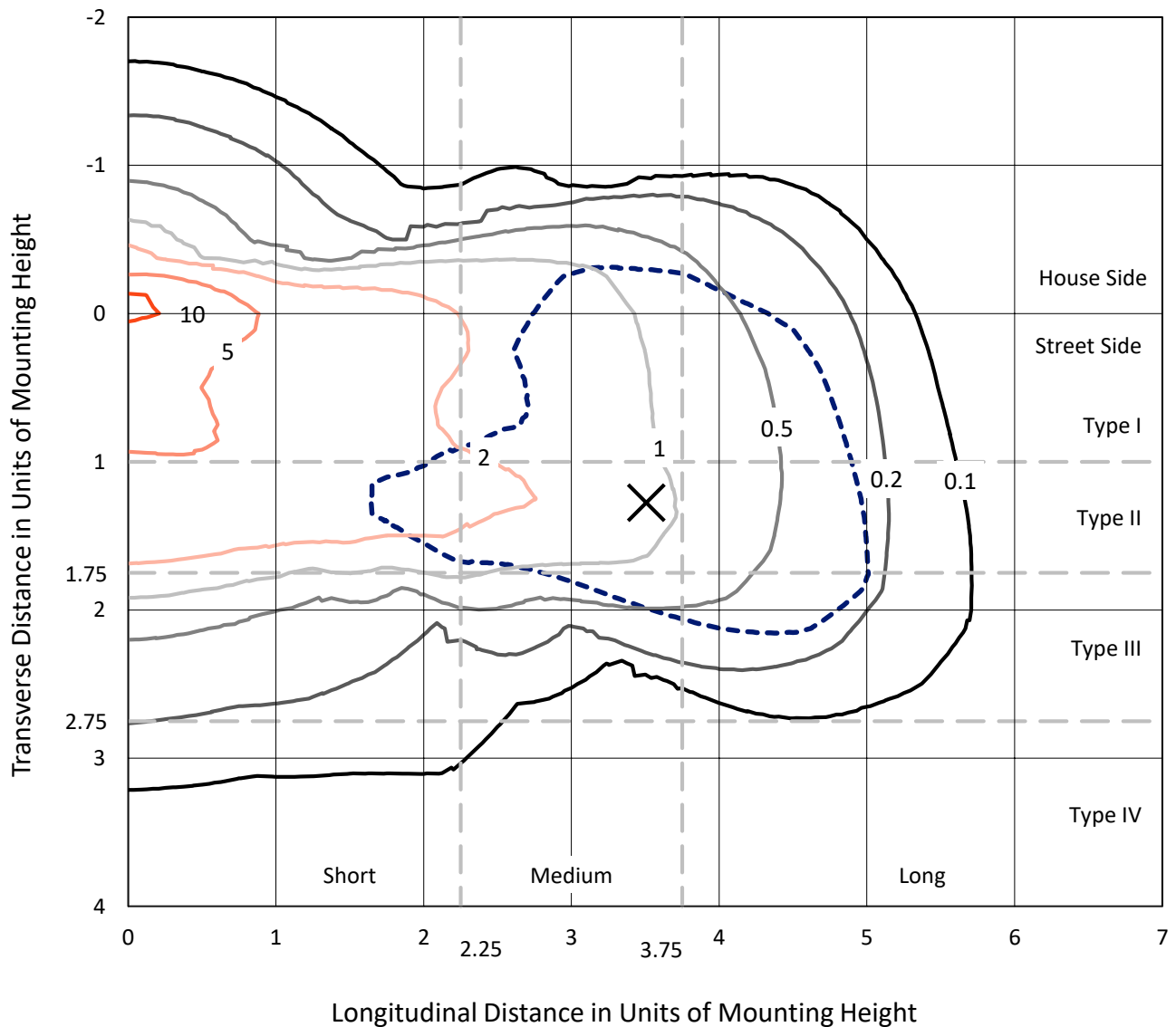


REPORT NUMBER: P459867

CATALOG NUMBER: NAV-SA5A-AMB-U-SL2

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

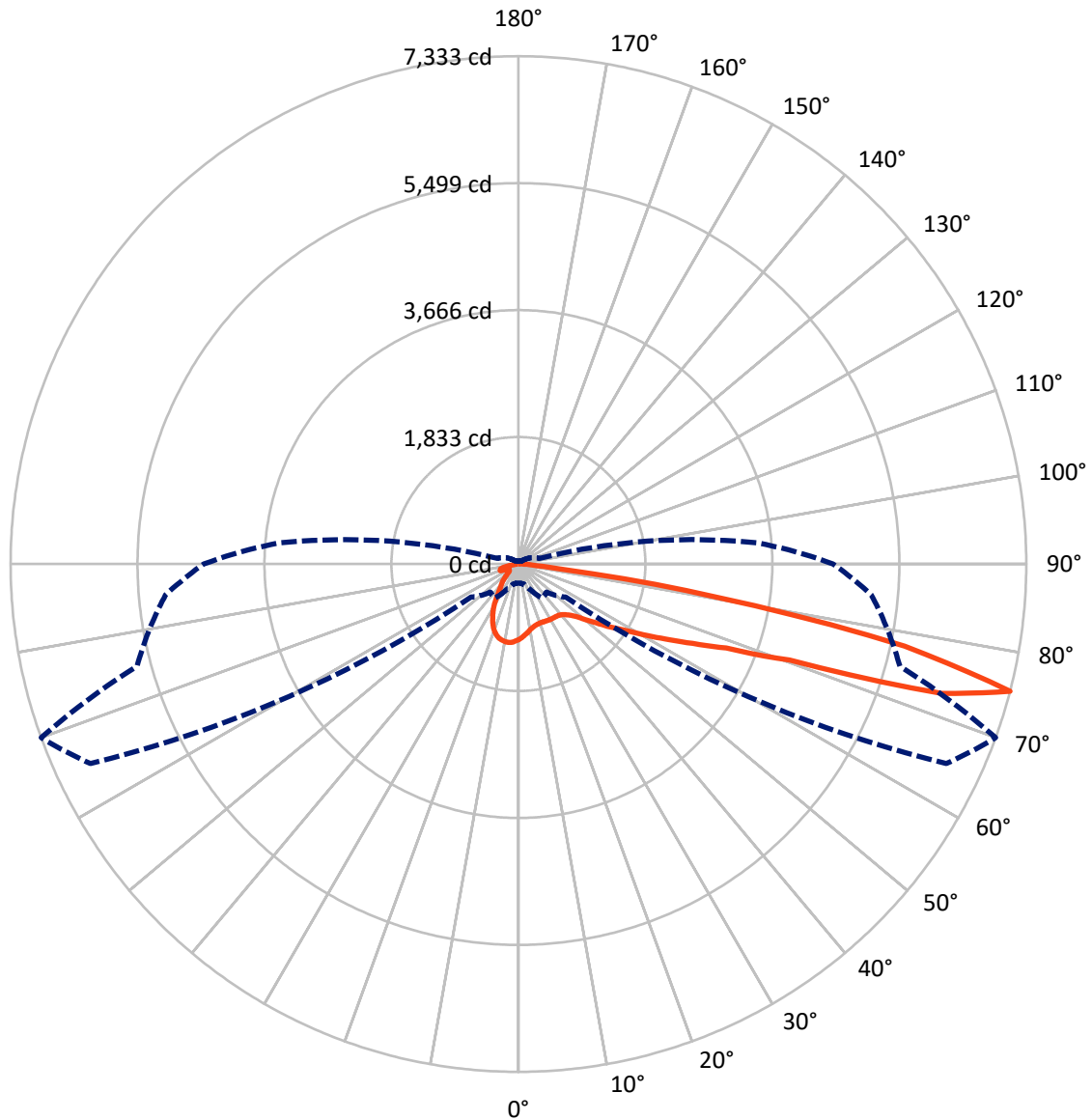


Based on 10 foot mounting height. Maximum calculated value = 10.9 fc
 Type III - Medium - Non-Cutoff

REPORT NUMBER: P459867

CATALOG NUMBER: NAV-SA5A-AMB-U-SL2

Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

REPORT NUMBER: P459867

CATALOG NUMBER: NAV-SA5A-AMB-U-SL2

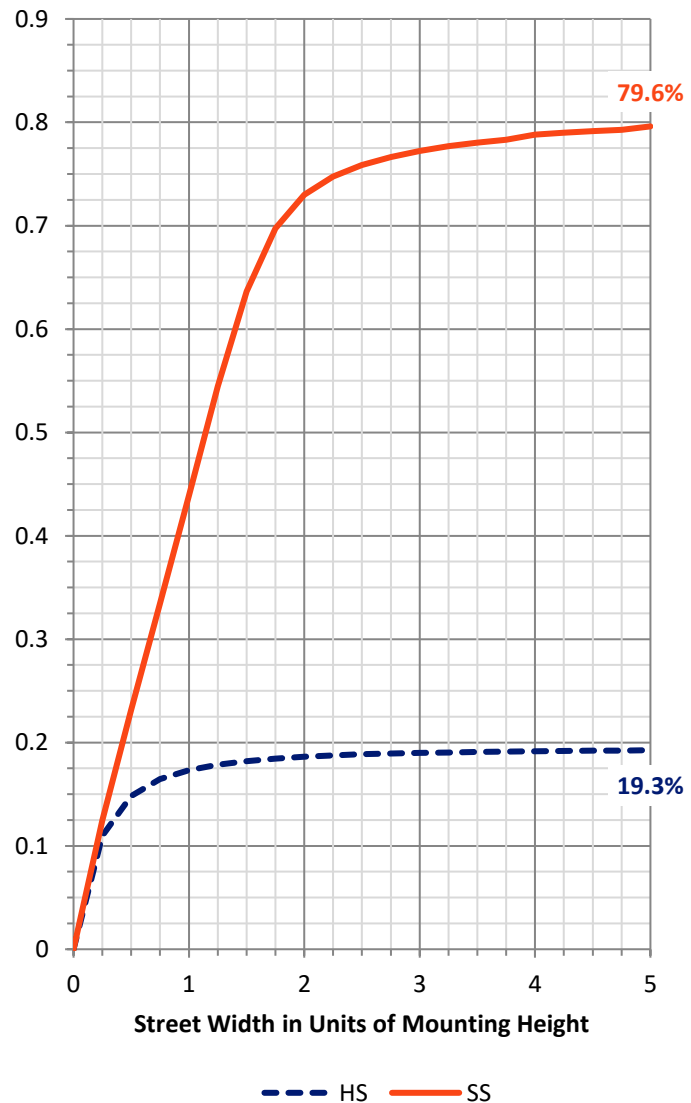
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1045.3	0.0	1045.3
	% Fixture	19.5	0.0	19.5
Street Side	Lumens	4311.7	0.0	4311.7
	% Fixture	80.5	0.0	80.5
Total	Lumens	5357.0	0.0	5357.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.6	1.8
10°-20°	239.7	4.5
20°-30°	322.4	6.0
30°-40°	424.1	7.9
40°-50°	604.9	11.3
50°-60°	942.3	17.6
60°-70°	1230.2	23.0
70°-80°	1307.4	24.4
80°-90°	187.2	3.5
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°	5357.0	100.0
0°-180°	5357.0	100.0

Coefficient of Utilization



REPORT NUMBER: P459867

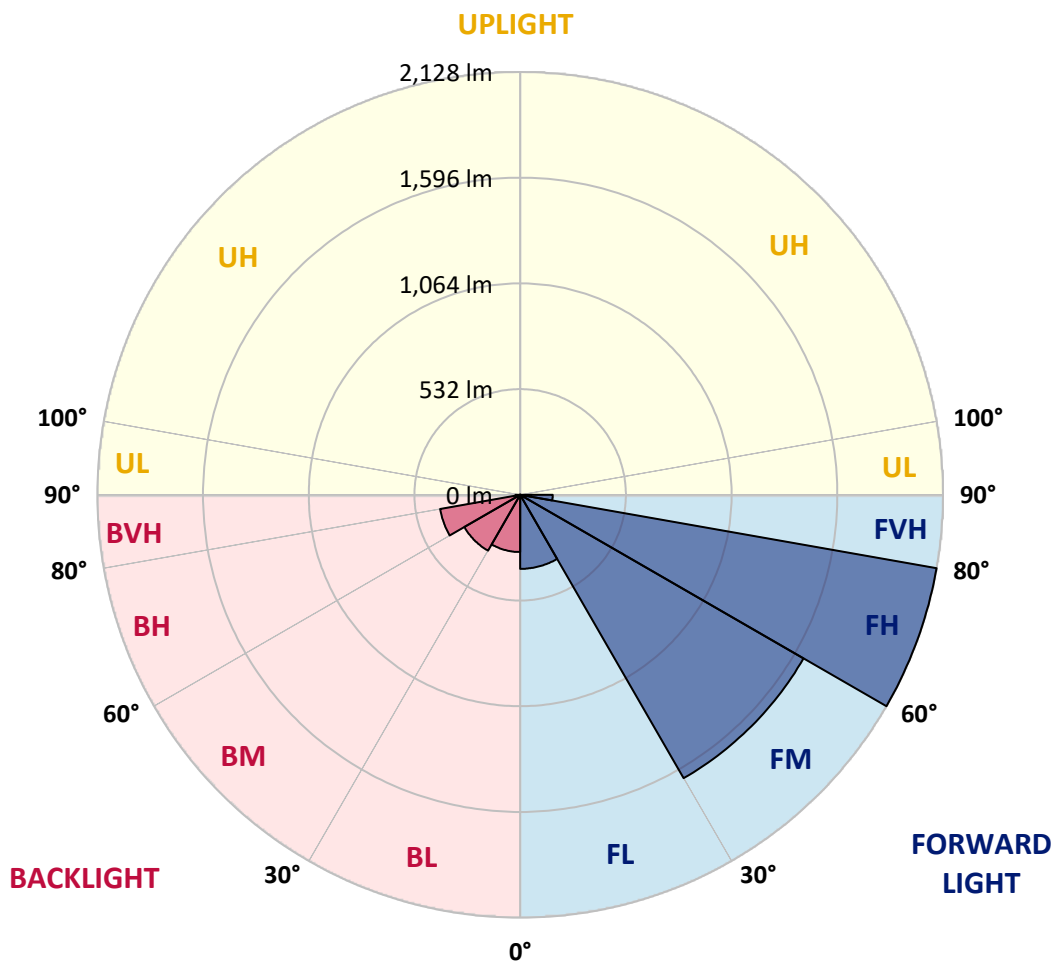
CATALOG NUMBER: NAV-SA5A-AMB-U-SL2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	372.7	7.0			
FM	(30°-60°)	1646.9	30.7			
FH	(60°-80°)	2128.5	39.7			G2/5000
FVH	(80°-90°)	163.7	3.1			G2/225
BL	(0°-30°)	288.0	5.4	B1/500		
BM	(30°-60°)	324.5	6.1	B1/1000		
BH	(60°-80°)	409.2	7.6	B1/500		G1/500
BVH	(80°-90°)	23.6	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-G2

Type III Medium





REPORT NUMBER: P459867

CATALOG NUMBER: NAV-SA5A-AMB-U-SL2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	1089.8	1089.8	1089.8	1089.8	1089.8	1089.8	1089.8	1089.8	1089.8	1089.8	1089.8
2.5°	1021.0	1021.0	1027.9	1027.9	1037.0	1039.3	1048.5	1053.1	1057.7	1064.6	1078.3
5°	947.6	945.3	952.1	963.6	975.1	986.6	1002.6	1018.7	1025.6	1037.0	1060.0
7.5°	892.5	892.5	897.1	904.0	920.0	933.8	959.0	977.4	993.4	1009.5	1041.6
10°	851.2	851.2	855.8	862.7	878.7	890.2	913.1	945.3	959.0	982.0	1023.3
12.5°	812.2	816.8	819.1	828.2	839.7	855.8	878.7	913.1	936.1	963.6	1018.7
15°	793.8	793.8	796.1	803.0	814.5	830.5	858.1	894.8	920.0	952.1	1021.0
17.5°	789.2	786.9	784.7	786.9	798.4	814.5	842.0	883.3	910.8	947.6	1032.4
20°	791.5	789.2	786.9	782.4	786.9	803.0	837.4	878.7	906.3	945.3	1050.8
22.5°	803.0	803.0	798.4	789.2	786.9	798.4	835.1	878.7	908.5	947.6	1069.1
25°	835.1	832.8	828.2	809.9	796.1	800.7	835.1	883.3	913.1	952.1	1085.2
27.5°	869.5	869.5	865.0	848.9	821.4	809.9	839.7	890.2	920.0	956.7	1103.6
30°	924.6	922.3	917.7	899.4	865.0	828.2	848.9	897.1	924.6	959.0	1119.6
32.5°	991.1	991.1	993.4	970.5	920.0	860.4	858.1	901.7	926.9	961.3	1138.0
35°	1069.1	1071.4	1078.3	1060.0	998.0	908.5	881.0	913.1	931.5	963.6	1156.3
37.5°	1126.5	1128.8	1154.0	1158.6	1085.2	972.8	917.7	936.1	940.7	968.2	1174.7
40°	1193.0	1193.0	1229.8	1257.3	1209.1	1062.3	968.2	963.6	961.3	986.6	1197.6
42.5°	1266.5	1275.6	1307.8	1353.6	1333.0	1165.5	1039.3	1011.8	1000.3	1018.7	1234.3
45°	1335.3	1339.9	1399.5	1452.3	1454.6	1305.5	1140.3	1087.5	1055.4	1076.0	1300.9
47.5°	1411.0	1417.9	1491.3	1576.2	1592.3	1454.6	1255.0	1181.6	1140.3	1160.9	1397.2
50°	1521.1	1532.6	1594.5	1697.8	1741.4	1631.3	1401.8	1312.3	1266.5	1275.6	1532.6
52.5°	1697.8	1695.5	1725.3	1826.3	1931.8	1826.3	1599.1	1472.9	1411.0	1424.8	1707.0
55°	1803.3	1801.0	1842.3	1952.5	2145.2	2071.8	1817.1	1663.4	1606.0	1599.1	1908.9
57.5°	1709.3	1713.9	1785.0	1957.0	2289.7	2454.9	2055.7	1895.1	1796.4	1807.9	2154.4
60°	1429.4	1401.8	1482.1	1716.1	2246.1	2884.0	2395.3	2175.0	2071.8	2051.1	2464.1
62.5°	963.6	972.8	1025.6	1177.0	1922.6	3001.0	3262.5	2523.7	2381.5	2344.8	2755.5
65°	725.0	722.7	725.0	750.2	1041.6	2890.8	4159.6	2987.2	2764.6	2643.0	3062.9
67.5°	605.7	598.8	596.5	653.9	649.3	1819.4	4457.8	4040.3	3235.0	2978.0	3361.2
70°	513.9	500.2	495.6	587.3	603.4	644.7	4423.4	5999.6	4155.0	3446.1	3755.8
72.5°	390.0	387.7	396.9	500.2	594.2	564.4	2663.7	6857.7	6389.7	4350.0	4570.3
75°	277.6	275.3	300.6	406.1	603.4	573.6	832.8	6816.4	7332.6	5701.4	5114.0
77.5°	183.5	181.3	204.2	291.4	566.7	575.9	543.8	4935.1	5701.4	5341.2	4191.7
80°	121.6	117.0	133.1	201.9	454.3	617.2	532.3	2443.4	2906.9	2473.3	1392.6
82.5°	71.1	68.8	84.9	140.0	298.3	610.3	536.9	768.6	628.6	321.2	174.4
85°	36.7	39.0	55.1	84.9	192.7	539.2	573.6	394.6	183.5	130.8	87.2
87.5°	11.5	16.1	29.8	45.9	107.8	371.7	509.3	305.1	133.1	84.9	48.2
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: P459867

CATALOG NUMBER: NAV-SA5A-AMB-U-SL2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1089.8	1089.8	1089.8	1089.8	1089.8	1089.8	1089.8	1089.8	1089.8	1089.8	1089.8
2.5°	1082.9	1089.8	1103.6	1119.6	1135.7	1142.6	1151.7	1154.0	1158.6	1160.9	1158.6
5°	1076.0	1092.1	1121.9	1142.6	1156.3	1154.0	1151.7	1144.9	1142.6	1140.3	1135.7
7.5°	1062.3	1089.8	1133.4	1151.7	1142.6	1115.0	1092.1	1064.6	1055.4	1043.9	1041.6
10°	1055.4	1094.4	1138.0	1135.7	1099.0	1046.2	1000.3	956.7	926.9	908.5	899.4
12.5°	1062.3	1110.4	1147.2	1105.9	1041.6	961.3	881.0	814.5	747.9	725.0	713.5
15°	1082.9	1135.7	1147.2	1066.9	968.2	853.5	731.9	626.3	548.3	509.3	502.5
17.5°	1108.2	1156.3	1131.1	1018.7	883.3	718.1	573.6	438.2	378.6	362.5	360.2
20°	1138.0	1181.6	1105.9	959.0	773.2	578.2	390.0	321.2	314.3	316.6	318.9
22.5°	1163.2	1193.0	1064.6	878.7	642.4	387.7	273.0	259.3	273.0	291.4	296.0
25°	1181.6	1186.2	1018.7	777.8	493.3	247.8	215.7	213.4	234.0	266.1	275.3
27.5°	1193.0	1163.2	956.7	669.9	302.8	192.7	176.7	183.5	199.6	222.5	227.1
30°	1199.9	1140.3	897.1	557.5	192.7	162.9	160.6	165.2	172.1	183.5	185.8
32.5°	1202.2	1117.3	832.8	415.3	162.9	149.1	149.1	153.7	156.0	162.9	162.9
35°	1197.6	1089.8	768.6	261.6	149.1	144.5	142.2	142.2	142.2	144.5	144.5
37.5°	1186.2	1062.3	692.9	174.4	142.2	137.7	135.4	135.4	133.1	133.1	133.1
40°	1179.3	1039.3	621.8	151.4	135.4	133.1	130.8	126.2	123.9	123.9	123.9
42.5°	1186.2	1027.9	534.6	144.5	130.8	128.5	123.9	119.3	119.3	119.3	119.3
45°	1216.0	1030.1	424.4	140.0	128.5	123.9	117.0	112.4	112.4	114.7	114.7
47.5°	1273.3	1050.8	328.1	135.4	123.9	119.3	110.1	107.8	107.8	107.8	107.8
50°	1360.5	1092.1	259.3	130.8	121.6	114.7	107.8	103.2	103.2	103.2	100.9
52.5°	1484.4	1167.8	204.2	128.5	119.3	112.4	103.2	98.7	96.4	96.4	94.1
55°	1656.5	1287.1	188.1	128.5	114.7	107.8	98.7	91.8	89.5	87.2	87.2
57.5°	1885.9	1456.9	185.8	126.2	107.8	100.9	91.8	84.9	82.6	82.6	80.3
60°	2165.8	1684.0	188.1	121.6	103.2	94.1	84.9	80.3	75.7	75.7	75.7
62.5°	2480.2	1931.8	188.1	119.3	100.9	89.5	80.3	73.4	71.1	68.8	68.8
65°	2799.1	2234.7	201.9	117.0	96.4	80.3	73.4	68.8	64.2	64.2	64.2
67.5°	3150.1	2604.0	275.3	117.0	91.8	73.4	66.5	61.9	59.7	59.7	59.7
70°	3604.4	3214.3	417.6	146.8	94.1	68.8	59.7	57.4	55.1	55.1	55.1
72.5°	4538.1	3918.7	332.7	204.2	110.1	61.9	52.8	50.5	50.5	48.2	48.2
75°	4542.7	3475.9	316.6	218.0	119.3	57.4	48.2	45.9	43.6	43.6	43.6
77.5°	3358.9	2269.1	270.7	169.8	103.2	50.5	43.6	41.3	39.0	39.0	39.0
80°	991.1	585.0	169.8	123.9	66.5	41.3	36.7	34.4	32.1	32.1	32.1
82.5°	169.8	153.7	78.0	66.5	41.3	32.1	29.8	27.5	25.2	25.2	25.2
85°	82.6	80.3	43.6	36.7	27.5	22.9	22.9	20.6	18.4	18.4	18.4
87.5°	50.5	45.9	32.1	20.6	16.1	11.5	13.8	11.5	11.5	9.2	9.2
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)