

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: P197161

Luminaire Tested: **NAV-AF-01-D-UNV-SLL-8030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197161
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24264)
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-SLL-8030-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 3000K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2901 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G1

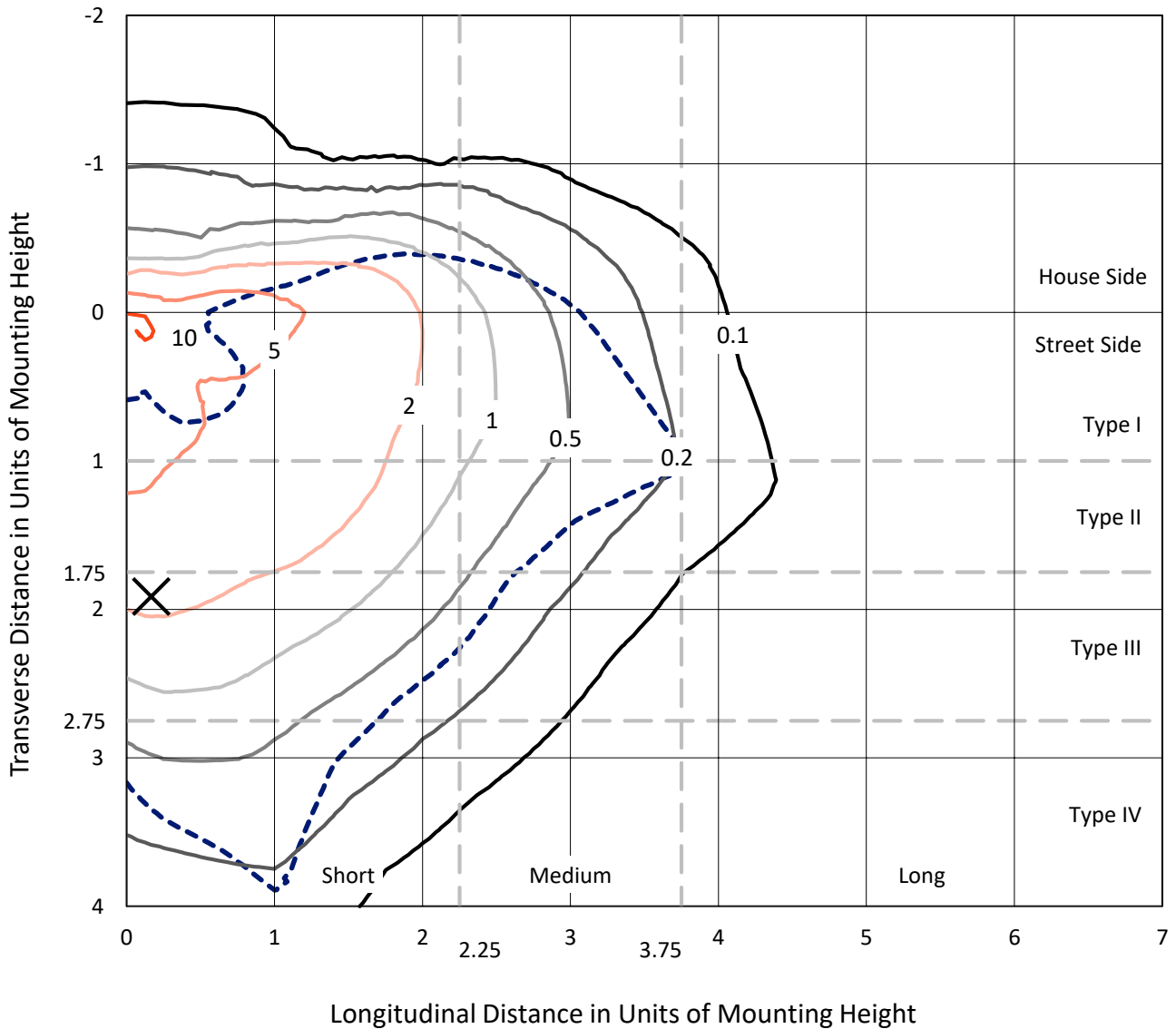
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P197161
 CATALOG NUMBER: NAV-AF-01-D-UNV-SLL-8030-600

Iso-Footcandle Lines of Horizontal Illumination

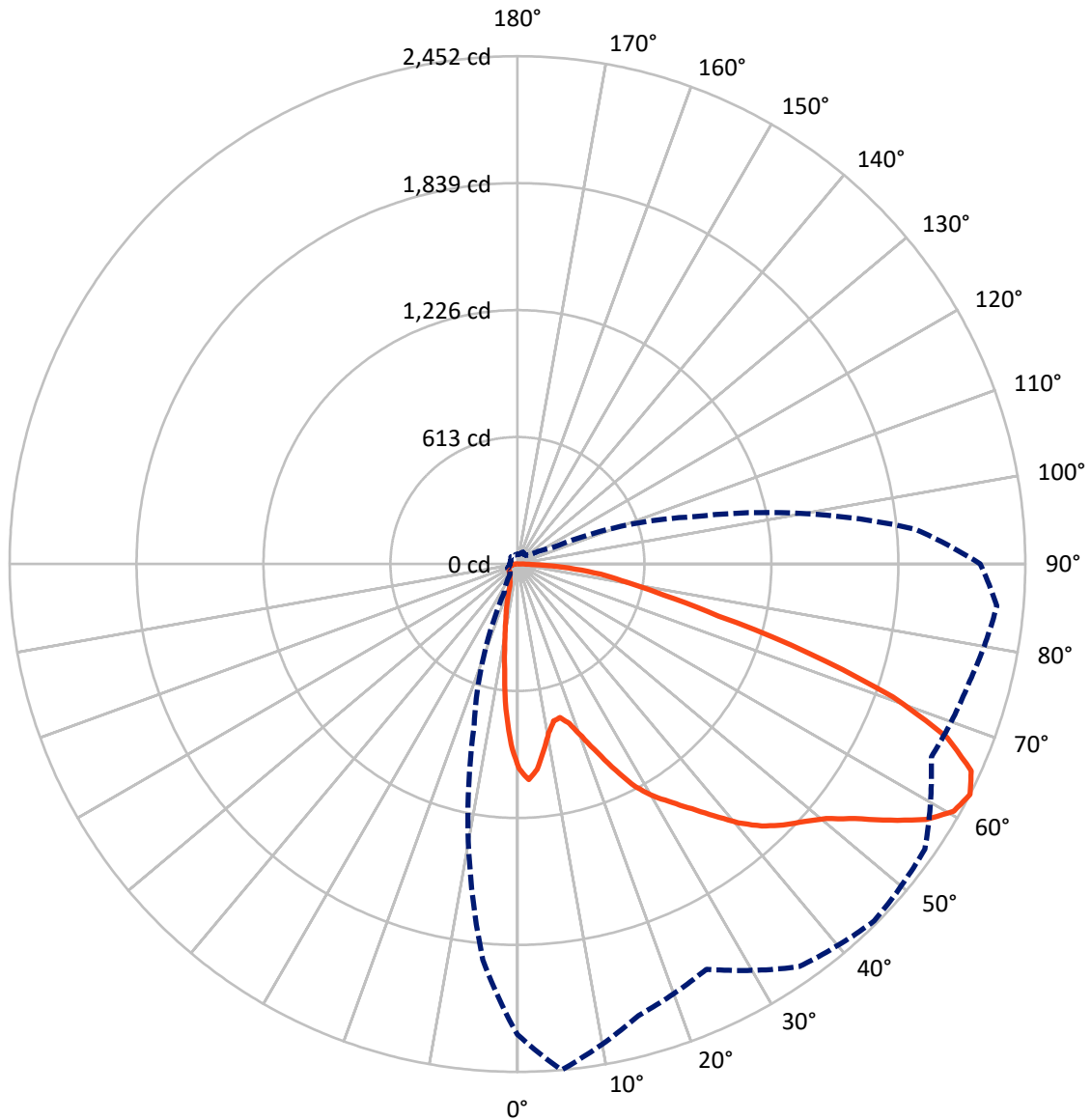
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.4 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P197161
CATALOG NUMBER: NAV-AF-01-D-UNV-SLL-8030-600

Luminous Intensity Polar Plot



— Vertical Plane Through 5-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

REPORT NUMBER: P197161

CATALOG NUMBER: NAV-AF-01-D-UNV-SLL-8030-600

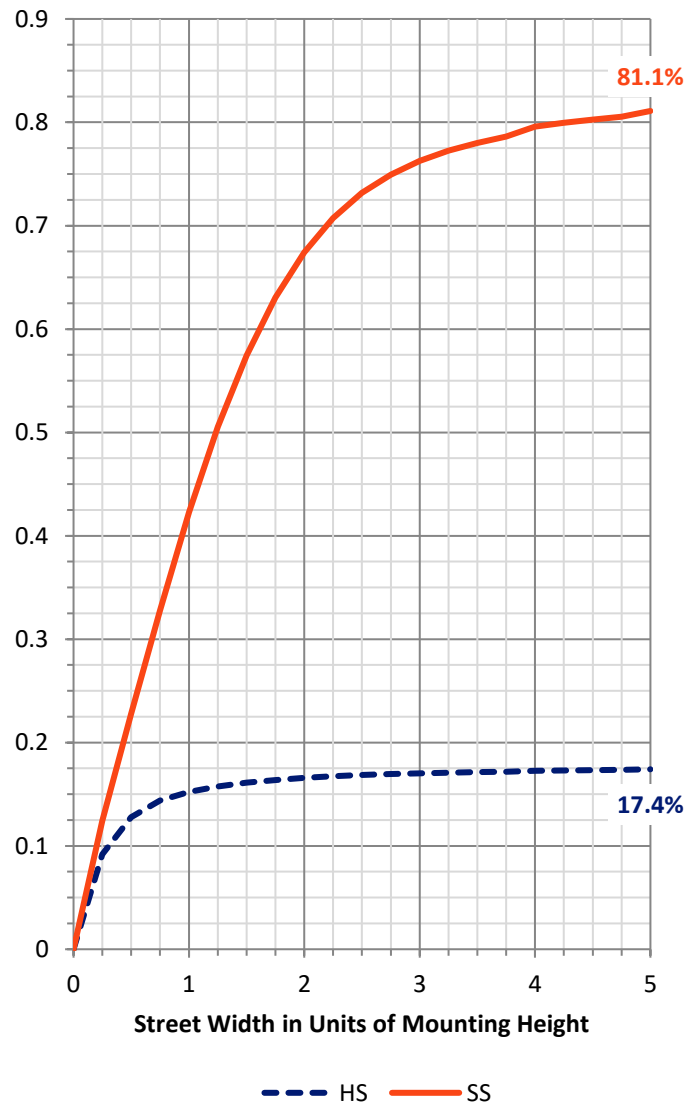
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	513.9	0.0	513.9
	% Fixture	17.7	0.0	17.7
Street Side	Lumens	2387.1	0.0	2387.1
	% Fixture	82.3	0.0	82.3
Total	Lumens	2901.0	0.0	2901.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.9	2.5
10°-20°	131.4	4.5
20°-30°	188.9	6.5
30°-40°	289.4	10.0
40°-50°	423.1	14.6
50°-60°	615.6	21.2
60°-70°	713.3	24.6
70°-80°	371.8	12.8
80°-90°	95.6	3.3
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°	2901.0	100.0
0°-180°	2901.0	100.0



REPORT NUMBER: P197161

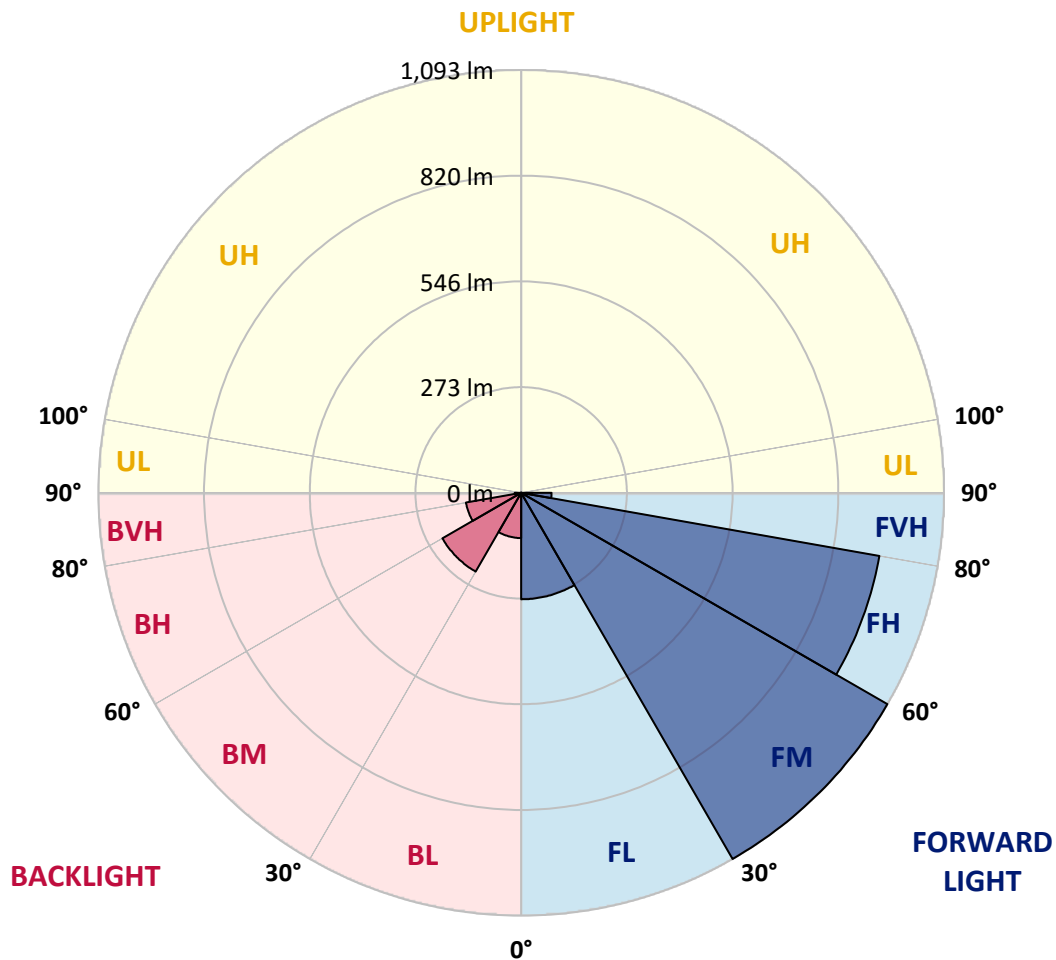
CATALOG NUMBER: NAV-AF-01-D-UNV-SLL-8030-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	275.3	9.5			
FM	(30°-60°)	1093.0	37.7			
FH	(60°-80°)	940.2	32.4			G1/1800
FVH	(80°-90°)	78.6	2.7			G1/100
BL	(0°-30°)	116.9	4.0	B1/500		
BM	(30°-60°)	235.1	8.1	B1/1000		
BH	(60°-80°)	144.9	5.0	B1/500		G1/500
BVH	(80°-90°)	16.9	0.6			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 IV Short





REPORT NUMBER: P197161
 CATALOG NUMBER: NAV-AF-01-D-UNV-SLL-8030-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	989.0	989.0	989.0	989.0	989.0	989.0	989.0	989.0	989.0	989.0	989.0
2.5°	1021.0	1042.6	1067.5	1099.9	1121.9	1130.8	1138.1	1125.7	1113.7	1091.2	1083.2
5°	953.7	995.3	1063.7	1128.7	1185.9	1218.7	1228.8	1205.9	1165.1	1106.2	1075.0
7.5°	853.8	908.7	1004.8	1100.5	1182.5	1237.2	1241.2	1195.8	1115.4	1018.9	968.4
10°	766.5	828.5	939.8	1046.9	1133.7	1189.7	1178.7	1115.0	1018.0	908.2	851.2
12.5°	715.8	777.8	891.2	999.9	1081.8	1103.0	1080.7	1027.1	935.2	825.2	767.7
15°	705.1	769.0	874.0	965.7	1016.4	1002.7	980.6	953.5	888.0	798.0	742.5
17.5°	737.4	809.0	896.9	947.2	945.0	912.2	893.7	899.0	887.8	827.5	769.4
20°	804.1	888.7	955.1	942.1	888.3	842.2	831.5	872.7	924.2	901.3	837.6
22.5°	891.8	988.2	1034.7	956.6	858.6	809.0	806.9	871.2	990.5	1013.0	935.4
25°	990.9	1103.2	1114.8	982.3	855.4	806.0	804.1	893.9	1070.2	1123.6	1045.0
27.5°	1112.1	1219.3	1181.7	1016.6	869.3	814.6	815.9	932.6	1153.3	1233.0	1168.4
30°	1203.3	1301.8	1222.9	1050.2	891.6	829.8	832.9	974.5	1198.1	1308.9	1267.1
32.5°	1288.7	1372.2	1262.4	1083.5	924.2	852.3	863.2	1026.7	1251.9	1374.1	1360.3
35°	1383.2	1451.1	1306.4	1119.0	970.9	891.8	907.6	1076.3	1305.4	1439.3	1452.6
37.5°	1490.2	1541.4	1354.2	1169.3	1038.2	965.0	973.9	1127.0	1342.6	1511.5	1551.7
40°	1601.7	1642.5	1406.3	1236.4	1136.0	1063.9	1068.1	1192.0	1371.8	1586.2	1647.8
42.5°	1697.4	1729.2	1458.7	1319.7	1248.4	1164.6	1168.2	1262.0	1399.8	1650.5	1724.8
45°	1774.0	1797.3	1508.1	1407.4	1368.2	1290.4	1289.6	1333.3	1437.2	1704.8	1783.9
47.5°	1845.3	1857.7	1563.2	1492.8	1492.6	1452.4	1422.3	1417.5	1487.1	1750.4	1835.4
50°	1926.9	1931.5	1636.0	1579.0	1644.4	1638.1	1582.6	1524.3	1551.7	1801.8	1889.5
52.5°	2040.5	2040.7	1726.2	1663.1	1812.1	1832.0	1767.5	1645.3	1647.2	1901.7	1982.9
55°	2174.1	2183.3	1843.8	1763.9	1987.5	2021.6	1960.8	1788.9	1784.3	2062.8	2134.3
57.5°	2277.3	2326.3	1980.8	1889.9	2151.3	2195.7	2146.7	1937.8	1952.8	2229.0	2259.2
60°	2306.4	2421.0	2117.3	2031.2	2289.9	2356.6	2306.8	2098.8	2117.7	2336.9	2295.2
62.5°	2271.6	2451.5	2256.3	2157.9	2372.2	2436.1	2400.4	2204.1	2252.1	2323.0	2234.4
65°	2168.8	2407.3	2377.0	2211.7	2324.9	2347.6	2338.1	2209.6	2325.1	2191.7	2066.4
67.5°	1928.6	2236.9	2323.2	2096.6	2103.8	2079.4	2067.0	2059.4	2243.0	1979.9	1801.3
70°	1568.5	1922.1	2066.4	1754.6	1701.6	1678.1	1637.3	1738.2	2016.1	1686.9	1482.5
72.5°	1208.2	1470.5	1694.9	1330.2	1220.0	1228.0	1181.7	1329.1	1670.1	1304.1	1131.8
75°	858.0	1002.7	1352.9	955.8	809.8	809.4	805.8	956.6	1317.8	936.0	828.1
77.5°	618.4	721.9	1059.9	639.6	574.6	582.0	570.2	650.2	1027.3	673.3	613.6
80°	493.2	534.5	685.1	426.6	427.8	445.1	442.6	444.7	675.8	487.6	458.7
82.5°	354.4	405.7	523.7	326.9	282.9	301.2	304.8	329.8	476.8	344.7	302.5
85°	181.7	247.4	481.9	283.1	176.9	146.6	168.7	260.2	414.2	206.6	147.4
87.5°	35.3	68.6	353.2	157.3	79.5	40.2	66.3	110.2	240.8	37.4	18.3
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: P197161

CATALOG NUMBER: NAV-AF-01-D-UNV-SLL-8030-600

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	989.0	989.0	989.0	989.0	989.0	989.0	989.0	989.0	989.0	989.0	989.0
2.5°	1069.6	1042.6	1017.4	991.3	971.1	946.5	922.3	901.3	880.9	867.4	871.6
5°	1043.5	977.9	919.0	864.3	832.3	793.8	759.5	730.7	708.4	694.1	702.7
7.5°	924.6	835.9	758.3	686.1	640.7	590.8	550.9	522.7	505.4	495.8	509.9
10°	803.1	703.4	616.3	541.2	496.4	454.1	417.9	388.1	364.9	354.0	359.7
12.5°	716.0	605.1	513.9	463.4	424.9	387.0	349.6	314.7	285.2	271.8	269.0
15°	683.4	552.3	459.2	402.8	364.5	323.3	282.9	245.5	217.5	205.9	203.4
17.5°	697.7	541.0	426.8	360.1	304.6	254.5	209.1	173.7	153.1	146.6	147.2
20°	748.0	545.2	400.7	316.1	247.6	188.3	142.8	118.4	109.6	108.1	109.8
22.5°	817.0	562.4	381.8	278.3	197.3	136.9	106.2	94.7	92.3	92.1	93.8
25°	908.0	596.1	369.1	244.6	155.9	108.5	92.5	86.0	84.1	84.6	86.2
27.5°	1015.3	638.8	360.9	215.6	128.1	96.8	86.4	80.8	78.9	79.3	80.6
30°	1113.3	676.2	348.7	193.7	115.1	92.5	83.1	77.4	74.9	74.9	75.7
32.5°	1201.0	708.6	334.4	177.3	103.1	83.1	75.3	70.9	69.0	69.6	70.0
35°	1278.9	725.7	323.3	167.6	93.4	76.6	68.8	64.2	61.6	62.0	62.7
37.5°	1355.4	732.2	315.9	162.4	86.4	72.6	65.4	61.6	58.9	58.5	58.3
40°	1428.2	730.7	309.0	160.9	81.8	69.6	63.3	59.9	57.2	56.6	56.4
42.5°	1491.1	725.9	302.5	156.9	78.7	67.5	61.6	58.7	55.9	55.1	54.7
45°	1548.5	722.9	295.3	149.6	80.3	66.7	60.8	57.6	55.1	54.1	53.6
47.5°	1612.2	733.4	287.3	141.6	79.9	66.9	60.8	57.2	54.7	53.6	53.2
50°	1688.2	769.0	277.4	130.6	76.1	71.5	60.6	56.6	54.3	53.6	52.8
52.5°	1795.4	826.6	263.8	116.5	73.2	76.4	60.4	55.5	53.6	52.6	51.5
55°	1942.5	884.3	246.1	101.6	68.6	73.0	60.8	54.3	52.2	51.1	49.9
57.5°	2063.0	928.0	223.8	89.2	64.4	69.0	60.2	52.8	50.5	49.4	48.4
60°	2055.2	932.2	202.6	81.2	61.8	62.0	61.6	51.7	49.0	48.2	47.3
62.5°	1928.0	880.3	182.8	77.2	59.9	56.6	62.9	50.5	47.5	46.7	46.1
65°	1716.1	759.3	172.3	77.2	58.3	53.6	54.9	48.8	46.1	45.2	44.8
67.5°	1447.5	610.2	162.4	78.9	55.9	51.5	49.9	47.1	44.6	43.8	43.3
70°	1160.2	480.2	155.4	78.0	53.8	49.2	47.1	44.8	42.3	42.1	41.6
72.5°	910.1	385.8	152.3	78.0	50.7	46.5	44.4	42.7	40.2	40.0	39.3
75°	729.2	289.6	139.2	76.6	47.5	42.9	41.0	39.5	37.0	37.2	36.8
77.5°	564.8	204.9	116.3	69.0	43.5	38.9	37.4	36.4	33.4	33.7	33.7
80°	441.7	133.4	90.2	57.2	38.9	34.3	33.2	32.4	29.2	29.7	29.7
82.5°	302.7	79.3	65.4	46.1	33.4	29.2	29.0	27.8	24.4	24.6	25.0
85°	165.3	52.2	43.5	34.1	26.3	23.8	23.3	22.7	19.6	19.6	19.8
87.5°	30.5	28.0	25.7	22.5	17.7	17.0	16.4	17.0	14.7	14.3	14.3
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: P197161
 CATALOG NUMBER: NAV-AF-01-D-UNV-SLL-8030-600

CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	989.0	989.0	989.0	989.0	989.0	989.0	989.0	989.0	989.0	989.0	989.0
2.5°	861.8	847.2	837.1	828.3	807.1	808.5	811.5	815.7	802.4	809.4	818.0
5°	694.1	682.1	673.1	659.0	629.3	618.8	612.1	609.1	589.4	593.6	602.8
7.5°	511.8	511.5	508.4	492.6	456.9	435.2	420.9	416.5	404.3	408.9	423.0
10°	360.3	364.1	362.6	348.5	316.6	301.0	297.8	306.7	306.9	315.9	340.1
12.5°	260.4	258.3	256.4	244.8	220.9	218.3	225.5	237.7	240.6	250.3	275.5
15°	194.4	189.3	188.3	179.2	163.4	165.7	171.0	177.3	177.5	184.3	205.1
17.5°	145.8	145.8	147.4	141.6	130.2	129.1	126.4	124.7	122.2	124.9	136.3
20°	113.2	118.4	122.6	119.3	109.0	103.9	98.6	95.3	93.4	93.6	97.0
22.5°	97.0	101.2	106.6	105.0	96.3	89.8	86.4	84.1	82.7	82.7	84.6
25°	88.8	91.5	96.5	95.7	88.3	83.1	80.3	78.0	76.4	76.1	78.0
27.5°	82.2	83.9	87.3	86.9	79.3	75.9	74.2	72.8	71.7	71.5	73.4
30°	76.4	77.2	78.9	78.2	72.6	69.2	68.6	67.9	67.3	67.5	70.3
32.5°	71.1	71.7	72.8	71.9	66.5	63.5	62.5	61.6	61.0	61.6	64.8
35°	65.2	67.1	68.4	67.9	62.0	58.5	56.2	54.1	53.2	53.8	57.4
37.5°	60.2	63.3	65.0	64.6	58.5	54.3	51.3	50.9	50.9	51.7	55.3
40°	58.3	60.6	62.0	61.4	55.3	51.1	49.4	48.8	49.0	49.9	53.6
42.5°	56.6	58.7	59.1	57.8	51.7	49.0	48.0	47.1	47.5	48.6	52.4
45°	55.1	56.8	56.6	54.7	48.8	46.9	46.9	46.3	46.5	47.3	51.3
47.5°	54.1	54.9	54.5	52.6	46.7	45.2	45.9	45.9	46.3	46.9	50.9
50°	52.4	53.0	52.6	50.9	45.0	43.8	44.4	45.2	45.6	46.3	49.9
52.5°	50.7	51.1	50.9	49.2	43.3	42.5	42.5	43.3	44.2	45.0	48.2
55°	49.0	49.4	49.6	48.4	42.1	41.2	41.0	41.0	41.9	43.1	46.5
57.5°	47.7	47.7	48.2	47.3	40.8	39.8	38.7	38.9	40.0	41.0	44.4
60°	46.3	46.5	47.1	46.3	39.1	37.4	36.6	37.7	38.1	39.1	42.7
62.5°	45.0	45.0	45.4	44.8	37.7	36.0	35.3	36.4	36.4	37.4	41.0
65°	44.0	43.8	43.8	43.5	36.2	34.5	34.1	34.5	34.7	35.8	39.3
67.5°	43.1	42.1	42.1	42.5	34.7	33.0	32.8	32.8	33.0	34.3	37.4
70°	41.2	40.4	40.2	41.6	33.2	31.1	31.1	30.7	31.1	31.8	35.1
72.5°	39.1	38.5	38.3	40.4	31.8	29.0	28.6	28.4	28.6	29.2	32.4
75°	36.4	36.0	36.4	39.5	30.3	26.7	26.1	25.9	25.9	26.1	29.4
77.5°	33.2	32.8	36.0	36.8	29.4	24.0	23.3	22.9	22.5	22.5	26.3
80°	29.4	29.2	34.7	31.1	28.2	21.0	20.0	19.4	18.9	18.7	22.5
82.5°	25.7	25.2	29.7	24.4	23.3	17.2	15.8	14.5	13.9	13.9	17.2
85°	21.0	20.8	23.3	17.9	16.2	12.6	10.5	9.5	8.6	8.6	11.1
87.5°	15.4	14.9	14.5	10.7	8.2	5.7	4.0	3.8	3.4	3.2	4.6
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: P197161

CATALOG NUMBER: NAV-AF-01-D-UNV-SLL-8030-600

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	989.0	989.0	989.0	989.0	989.0	989.0	989.0	989.0
2.5°	830.8	848.3	881.3	908.4	944.6	973.7	1006.7	1021.0
5°	619.9	647.4	697.9	741.0	800.8	856.1	919.2	953.7
7.5°	444.7	485.5	523.7	577.6	652.3	726.5	808.1	853.8
10°	367.9	405.3	438.1	476.4	534.0	617.6	714.9	766.5
12.5°	304.8	345.2	379.9	420.9	469.3	544.8	655.8	715.8
15°	233.7	277.6	319.3	368.7	428.0	514.3	638.2	705.1
17.5°	160.1	207.2	258.5	318.9	390.4	501.4	655.0	737.4
20°	108.7	143.2	199.0	270.5	356.5	495.3	692.0	804.1
22.5°	89.4	105.0	146.8	225.1	328.8	502.1	752.2	891.8
25°	82.0	90.4	114.2	185.1	307.5	520.0	833.6	990.9
27.5°	77.4	84.6	100.1	156.5	288.0	544.4	932.6	1112.1
30°	74.7	81.4	94.4	141.8	270.1	565.4	1017.8	1203.3
32.5°	68.6	73.6	84.3	133.4	257.2	582.4	1092.9	1288.7
35°	61.2	67.3	76.1	127.9	256.8	590.4	1163.6	1383.2
37.5°	58.5	64.4	70.9	124.9	259.3	597.1	1250.0	1490.2
40°	56.8	62.0	67.3	124.5	261.4	602.4	1334.6	1601.7
42.5°	55.3	60.6	66.7	121.6	260.6	609.6	1409.5	1697.4
45°	54.9	60.2	68.1	117.2	260.4	620.7	1469.0	1774.0
47.5°	54.5	62.5	67.7	112.3	259.6	644.3	1536.1	1845.3
50°	54.1	66.7	64.8	105.6	253.2	684.4	1626.3	1926.9
52.5°	53.8	67.3	61.6	96.3	241.9	744.0	1758.4	2040.5
55°	53.0	63.9	56.2	84.1	225.5	808.1	1900.0	2174.1
57.5°	51.1	57.0	53.0	72.1	201.9	852.9	2004.5	2277.3
60°	55.7	49.0	50.9	66.0	173.7	860.9	2009.1	2306.4
62.5°	53.2	44.6	48.8	63.9	154.0	808.7	1917.2	2271.6
65°	42.5	42.3	46.9	66.0	151.0	692.0	1762.0	2168.8
67.5°	38.7	40.6	45.0	68.6	152.9	545.2	1533.6	1928.6
70°	36.2	38.5	42.5	70.9	156.3	429.5	1234.7	1568.5
72.5°	33.7	35.5	40.0	73.2	154.0	338.9	988.2	1208.2
75°	30.5	32.2	36.4	67.1	132.1	249.0	785.2	858.0
77.5°	26.9	28.4	32.0	53.0	99.3	173.3	588.1	618.4
80°	23.1	23.8	26.5	38.7	64.8	103.7	447.6	493.2
82.5°	18.3	18.5	20.2	28.4	40.4	66.3	310.5	354.4
85°	11.8	12.2	13.0	20.0	27.1	42.5	158.6	181.7
87.5°	4.0	4.6	4.6	9.7	13.3	23.6	48.6	35.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)